



22nd October 2021

Commentary on the National Timetable Planning Rules 2023

Version 3.0

Draft Proposal for Principal Timetable Change 2023

This document is a covering note for the Timetable Planning Rules – Draft proposal for Principal Change Timetable 2023 - and provides a specific commentary to the route described above.

In the Timetable Planning Rules document each change in content is indicated by the following convention:

New or Amended text is red
Deleted text is green and struck through

The following is a summary of changes in content from Version 1.0 of the 2023 National Timetable Planning Rules.

Page 4 – Guiding Principles – wording updated.

Page 6 – Sectional Running Times 1.4.10 – additional information added to considerations.

Pages 7-11 – Headways – section updated to include reference to ETCS. Application of Headways table updated.

Pages 11-12 – Absolute Block and Track Circuit Block Headways – Explanations and principles added.

Pages 12-14 – Junction Margins and Platform Reoccupation – sections updated to include reference to ETCS.

Page 19 – Headcode Designations and Terminology – Explanations and principles added. Exceptions notations updated to remove +/- references.

Page 19 – Timing Allowances – Adjustment allowance explanation updated.

Page 20-21 – Notes and Static Allowances for ETCS Technical Values – Section added with explanation and tables.

Page 24-25 – Terminology and Timetable Development Dates – Dates updated (*note May23 dates are currently blank*).

Page 26 – Appendix B – Operational Planning Project Managers LTP – Contacts updated.

Page 28 – 2.18 Autumn (Leaf-Fall) timetables – dates updated.

Page 38 – Timing Loads for Container and Heavy Axle Weight Trains – wording updated.

Page 41 – Timetable Process – Short Term Planning – 3.1.2, Network Code amendment date updated.

Page 50 – Appendix H – List of Definitions – Cumulative Rounding wording reinstated and updated.

Page 53 – Access Impact Matrix – Section updated in line with Access Planning Matrix review working group.

These represent the Draft Timetable Planning Rules (the “Draft Rules”) for the Principle December 2022 timetable in accordance with Part D of the Network Code, Condition D2.2.3.

As per Condition D2.2.4 of Part D of the Network Code, following distribution of the Draft Rules and by D-54, Timetable Participants may make representations to Network Rail in respect of any changes they propose or objections they may have to the Draft Rules provided to them in accordance with D2.2.3.

Regards

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TIMETABLE PLANNING RULES

National

2023 TIMETABLE

Version 1.0

Issued by:

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Draft Proposal for Principal Timetable Change 2023

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1. Procedure for amending the Values in the Timetable Planning Rules

1.1 Abstract

- 1.1.1 The purpose of this section is to set out clear principles and a robust methodology for determining Timetable Planning Rules (TPRs) when generating new or amended values for inclusion into route specific TPRs. This methodology should be used by Network Rail and Timetable Participants when proposing or supporting TPR changes, unless another methodology is deemed appropriate, agreed and documented by all parties concerned.
- 1.1.2 The construction of a robust timetable needs to balance safety, capacity and performance expectations and the aspirations of all stakeholders involved, recognising that the application of these rules should provide for current and anticipated service levels, coming to a balanced decision using the Decision Criteria set out in D4.6 of the Network Code.
- 1.1.3 Values generated by this methodology will be subject to procedures set out in condition D2.2 of the Network Code.
- 1.1.4 A list of definitions is shown in Appendix G which contains the explanations of some of the terminology used in the TPRs.

1.2 Guiding Principles

- 1.2.1 Where a deficiency in the delivery of the timetable has been identified, the problem understood and the deficiency concluded to be genuine, there are potential avenues to explore:
- (a) Review operational activities and driving policy standards;
 - (b) Explore infrastructure interventions;
 - (c) Carry out a TPR review;
 - (d) Implement a Timetable change;
 - (e) Maintain the status quo. ~~Record the identified deficiency and the mitigations in place.~~
- 1.2.2 In respect of proposed upwards revisions of TPR values, the aim should be to enhance operational delivery prior to altering TPR values. This approach must be agreed by the parties with defined outputs and delivery timescales, whereby all parties accept the risk of performance under-delivery in the interim as a result of delaying TPR change. All stakeholders are responsible for reviewing and optimising their own operational delivery performance.
- 1.2.3 The impact of a TPR value change must be considered by all parties concerned and if deemed necessary, a timetable impact assessment undertaken.
- 1.2.4 A timetable impact assessment may not be necessary in circumstances where TPR value reduction is proposed, but opportunities to improve the timetable should still be taken.
- 1.2.5 All TPR change proposals must be considered in the context of any potential need to apply increased and decreased values together as part of an holistic improvement.
- 1.2.6 TPR values, excluding Sectional Running Times (SRTs), can never be less than the technical value. The process for the generation of SRTs is covered in Section 6 1.4.
- 1.2.7 Changes to individual TPRs will be supported by evidence showing how the values were developed. Sources of evidence are to be agreed by the affected parties.

- 1.2.8 Supporting information must be stored in a format accessible to Network Rail and Timetable Participants. Such information must be made available when requested.
- 1.2.9 TPR values for Headways and Junction Margins shall always include rules based on the application of the least restrictive aspect the signalling system can show.
- 1.2.10 Where the actual operation of the Railway allows, equivalent TPR values for Headways and Junction Margins may be developed giving consideration to restrictive signalling aspects. Such values may not exist as the exclusive rule, and must always include allowances that reflect the impact on the SRT of trains operating on restrictive aspects. These restrictive aspect rules and allowances cannot be applied independently as they comprise a single rule.
- 1.2.11 Any rule that is not predicated on the basis of the signalling system showing the least restrictive aspect must be clearly identified as a restrictive aspect rule in order that Network Rail and Timetable Participants fully appreciate the operational implications of adoption of that rule.
- 1.2.12 A process of rounding will apply to all technical values generated through this methodology in order to express planning values in multiples of half minutes and be compatible with downstream systems.

1.3 Procedure for Amending TPRs

- 1.3.1 When producing TPR change proposals, Network Rail and/or the Timetable Participant will set out why the change is proposed, and the planned date for implementation.
- 1.3.2 The proposal will consist of:
- (a) A proposal number, provided by the appropriate Network Rail TPR forum
 - (b) Source data and assumptions for both infrastructure and rolling stock
 - (c) Supporting evidence as agreed by Network Rail and affected parties
 - (d) Outputs from the simulation model or other methodology, Technical values, planning values, and any rounding applied expressed in seconds and/or %age uplift
 - (e) Network Rail will consult in accordance with the Network Code
 - (f) Network Rail will document responses and decisions taken on implementation or otherwise, so that each TPR entry has an audit trail

1.4 Sectional Running Times

- 1.4.1 Sectional Running Times are referred to in Section 5.1 of the TPR.
- 1.4.2 A Sectional Running Time is the time taken for various train types (Timing Loads) to traverse a Network Link, representing the fastest route of that Network Link.
- 1.4.3 All SRTs are compiled individually by:
- (a) Direction of travel
 - (b) Each track on multiple lines
 - (c) Optimal performance possible for line and rolling stock, including acceleration or deceleration impact as appropriate

- 1.4.4 To take account of factors such as permissive moves, slow speed junctions, crossovers and platform sharing, additional time in the form of adjustment allowance should be added to schedules and listed in Section 5.3 of the TPR. If this additional allowance applies to all trains using the SRT, this allowance should be included in the SRT.
- 1.4.5 It is permissible to include percentage uplift in SRTs instead of applying engineering recovery allowances to be agreed by all affected parties.
- 1.4.6 SRTs are split by type into 4 different timing links:
- Stop to Pass – wheels start at first timing point to front of train passing the second timing point
 - Pass to Pass – front of train passing the first timing point and passing the second timing point
 - Pass to Stop – the front of train passing first timing point to wheels stop at second timing point
 - Stop to Stop – wheels start at first timing point to wheels stop at second timing point
- 1.4.7 When technical values range between 1 and 14 seconds, values should be rounded to the full minute below and when technical values range between 31 and 44 seconds, values should be rounded to the half minute below. For instance, a technical value of 1 minute 14 seconds becomes 1 minute, whereas a technical value of 1 minute 31 seconds becomes 1 minute 30 seconds.
- 1.4.8 When technical values range between 15 and 29 seconds values should be rounded to the next half minute above and when technical values range between 45 and 59 seconds, values should be rounded to the next full minute above. For instance, a technical value of 1 minute 29 seconds becomes 1 minute 30 seconds, whereas a technical value of 1 minute 45 seconds becomes 2 minutes.
- 1.4.9 If the technical value falls exactly on the 0 or 30 second mark no rounding will be added. For instance, a technical value of 2 minutes or 2 minutes 30 seconds will be translated to an SRT with no rounding up or down.
- 1.4.10 **Consideration needs to be given to the criticality of the timing points in question and to operational characteristics, as well as the 'real world' implications, that may mean occasions when 1.4.7 -1.4.9 are over-ridden.**
- 1.4.11 Cumulative rounding will apply over sections of combined SRTs based on the principles outlined above. The table below provides an example of rounding:

Location	Technical value		Cumulative technical values		Planning value mins	Cumulative planning values mins
	Mins	seconds	Mins	Seconds		
Timing point A	3	12	3	12	3	3
Timing point B	5	6	8	18	5	8
Timing point C	2	44	11	2	3	11
Timing point D	3	51	14	53	4	15
Timing point E	2	13	17	6	2	17
Timing point F	3	9	20	15	3½	20½

- 1.4.12 SRTs should not be so generous that trains run and arrive early, having an adverse impact on performance, safety and capacity.
- 1.4.13 SRTs should allow for reasonable variations in operational performance. SRT calculations based on observed data should not be standardised on neither the lowest nor the highest observed value as this will artificially produce a lower or higher value than is realised in normal day to day operation.

1.5 Headways

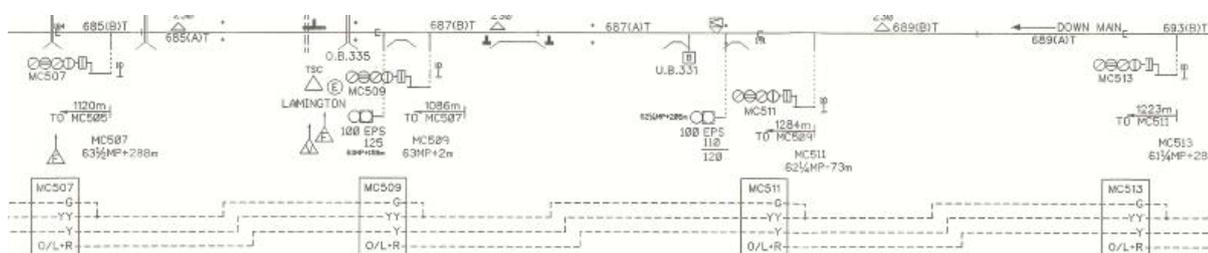
This section covers calculating margins for both conventional and European Train Control System signalling.

1.5.1 Technical Headway

The Technical Headway is the minimum permissible time interval between two successive trains at a specific timing point on the same line in the same direction, such that the second train can meet its SRT. This is based on the second schedule receiving the least restrictive aspect the signal can show, or point before ETCS indication to reduce speed prematurely unless otherwise stated. This is expressed in seconds, and will necessarily vary according to the types of train and their speed.

This can be calculated as per the following examples.

Diagram A (4-aspect signalling)



Technical Headway at Signal MC513 (above right) is the time elapse between the front of the first train passing MC513 (showing a green aspect) and its rear clearing the overlap of MC507 (above left), this being the point at which MC513 would be able to show a green aspect again. To this must be added a system reset time (normally 4s but this can vary) and sighting time for the second train to see MC513 at green (this is a standard 9s as used by signal sighting committees).

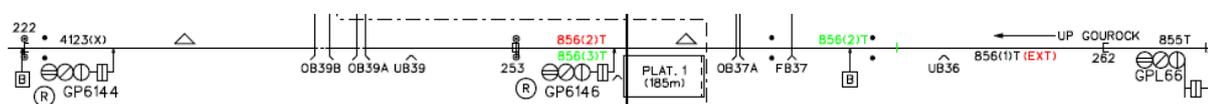
Hence if the first train were able to maintain 100mph through the section and its length were 240m, the calculations undertaken would be:

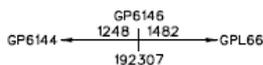
Section (4-Aspect)	Distance/length (Metres)
Distance MC513 to MC511	1223
Distance MC511 to MC509	1284
Distance MC509 to MC507	1086
Overlap of MC507	184
Train length	240
Total	4017

For this example, system reset time is 4 seconds, and sighting time is 9 seconds.

4017m at 100mph takes 90s, so adding 4s and 9s this would give a Technical Headway of 103s in this example. Similarly a 400m-long train that could maintain 60mph though the section would alter the calculation to: (1223+1284+1086+184+400)m at 60mph – 156s. Adding 4s and 9s gives a Technical Headway of 169s in this case.

Diagram B (3-aspect signalling)





Technical Headway at Signal GPL66 (above right) is the time elapse between the front of the first train passing GPL66 (showing a green aspect) and its rear clearing the overlap of GP6144 (above left), this being the point at which GPL66 would be able to show a green aspect again. Again, to this must be added the system reset time and the sighting time for the second train to see GPL66 at green.

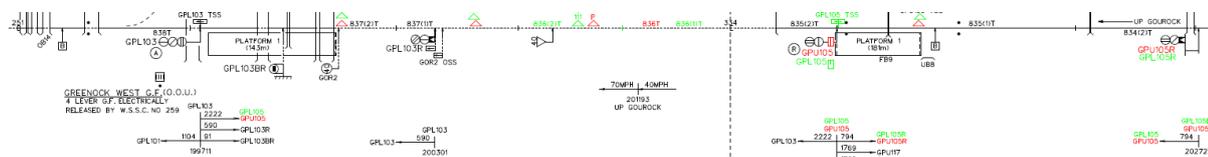
Hence if the first train were able to maintain 70mph through the section and its length were 120m, the calculations undertaken would be:

Section (3-Aspect)	Distance/length (Metres)
Distance GPL66 to GP6146	1482
Distance GP6146 to GP6144	1248
Overlap of GP6144	222
Train length	120
Total	3072

For this example, system reset time is 4 seconds, and sighting time is 9 seconds.

3072m at 70mph takes 98s, so adding 4s and 9s this would give a Technical Headway of 111s in this example. Similarly a 350m-long train that could maintain 40mph though the section would alter the calculation to: (1482+1248+222+350)m at 40mph – 185s.. Adding 4s and 9s gives a Technical Headway of 198s in this case.

Diagram C (2-aspect signalling)



Technical Headway at Signal GPU105 (above centre-right) is the time elapse between the front of the first train passing GPU105 (showing a green aspect) and its rear clearing the overlap of GPL103 (above left), this being the point at which GPU105 would be able to show a green aspect again. Again, the system reset time and sighting time must be added. In this instance, however, unlike the 4-aspect and 3-aspect scenarios above, in order for the second train not to see restrictive aspects, it must see GPU105R (above right) at green.

So if the first train were to maintain 40mph through the section and its length were 120m, the calculations undertaken would be:

Section (2-Aspect)	Distance/length (Metres)
Distance GPU105 to GPU103	2222
Overlap of GPU103	251
Train length	120
Total	2593

Distance GPU105 to GPU103 (2222m)
+
Overlap of GPU103 (251m)
+
Train length (120m)
=
Total 2593m

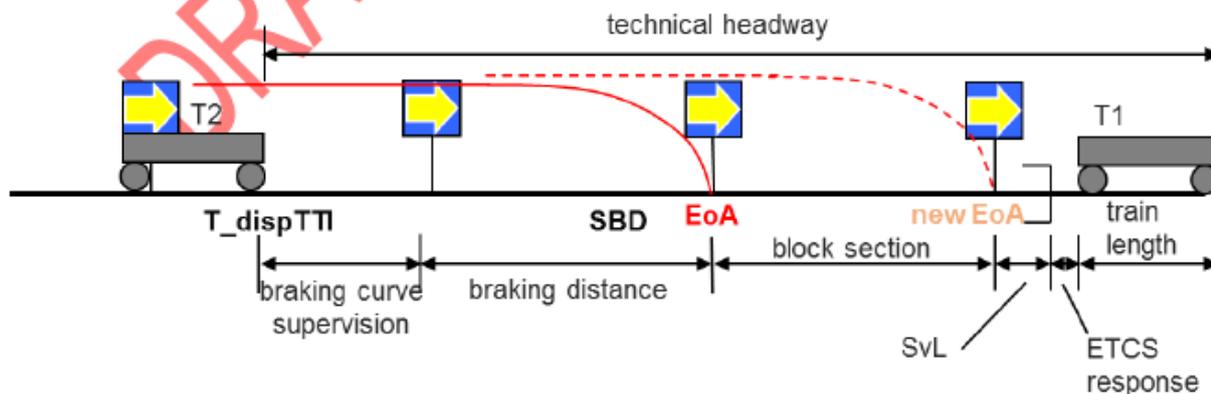
2593m at 40mph takes 145s, to which we need to add 4s reset time, giving 149s.

On the assumption that the second train were also able to maintain 40mph, we now need to calculate the time taken from GPU105R to GPU105 – this is 794m, which would take 45s, then add 9s for sighting. This would give a Technical Headway of $149+45+9 = 203$ in this example.

Generally, in areas of 2-aspect signalling it may be better to plan as Absolute Block, although it is noted that there are some areas where 3 or 4 aspect signalling also requires Absolute Block planning.

Diagram D (ETCS Level 2)

Figure 25 from NR-STE-SA-REP-00423_A04



The ETCS Technical Headway value is therefore the time that it takes for a train to traverse the distances shown in diagram D, which are broken down into individual components.

Please note that the block section lengths and braking distance in the diagrams are for illustration purposes only, they are not intended to represent any proportionality between the two.

Please refer to section 1.14.3 for details of ETCS specific static allowances.

Variability

Obviously not all trains will maintain a constant speed as shown in the examples above, so when deducing technical headways the actual time taken in section should be assumed from modelling or from observation. In the case of modelling, care should be taken that traction parameters are agreed and reflective of traction operating in the section. In the case of observed measurements, care should be taken that the data used is representative of the scenario being calculated and is within reasonable expectation.

In some instances, it will not be necessary to make a calculation based on least restrictive signals, if the relevant SRTs can still be met by not doing so. Examples of this may include approach-controlled signalling arrangements, where the signalling is not capable of showing green aspects, or where signal spacing is greater than the minimum necessary to the extent that trains do not need to immediately decelerate on seeing restrictive aspects. In these cases, the above calculations may be adjusted to reflect reality and produce a Technical Headway that is lower than would otherwise be the case.

Where performance of trains is not uniform, it will not be possible to deduce a single figure. Multiple scenarios should then be calculated to reflect the performance of the most common train types and the interactions between them in order to inform the Planning Headway (see below).

1.5.2 Signalling Headway

This is a measure typically used by signalling designers, and broadly corresponds to the examples above, and will assume a type of train most likely to use a route that is best capable of maintaining the line speed profile.

1.5.3 Planning Headway

Having made appropriate calculations of the Technical Headway, the Planning Headway should then be deduced by rounding up the Technical Headway to the next half minute above. A further half minute, or more where required, should be assumed if it is agreed that it is necessary to achieve the desired level of performance. The examples above show the calculation of the Technical Headway at specific signals. Naturally most timing points are not at signals so an appropriate adjustment should be made to reflect the headway at the actual timing point, be that the nominal station mileage or actual stopping points.

The values listed in Section 5.2 of TPRs are Planning Headways.

Where significant performance differentials exist, Planning Headways shall be created for different combinations of:

- Train type (including weight, length and speed);
- Following a non-stop train at a timing point;
- Following a train stopping at a timing point; and
- Stopping pattern

This should be done in order to provide a reasonable level of granularity to Planning Headways to best balance capacity and performance and to avoid excessive complication.

1.5.4 “Stopping” headways

As referenced in 6.5.3 above, it may be relevant to provide differential headways when following a train that has stopped at a timing point, or will stop before the next common timing point, as it will clearly take a departing train longer to clear the relevant signal sections than a non-stop train of similar performance.

These situations will result in a “stopping” headway, as opposed to a “non-stop” headway.

In terms of Technical Headway, this would be calculated as per the non-stop headway but also adding the difference between the relevant technical pass-to-pass and start-to-pass run times (the “starting allowance”).

For example, at Hayward’s Heath, the Technical Headway (non-stop) on the Up Fast line would be:

Signal T340: clearance $744+946+1009+200+240=3139\text{m}$
78s at 90mph for a 240m train
91s including reset time and sighting
104m offset for station mileage cf. signal mileage = 3s at 90mph
Total 94s

Technical SRT to Balcombe Tunnel Jn (theoretical) = 4m24s p/p and 5m30s s/p
Starting allowance is therefore 66s. Technical stopping headway is therefore $94+66\text{s} = 160\text{s}$, which would likely round up to 3 minutes as a minimum Planning Headway.

However, care must be taken if there are intermediate stations (or indeed any other point at which a train is likely to stop) within the distance over which a signal would clear to green. ~~In Diagram C above, GPU105 signal will not clear to green until the rear of the previous train has cleared the overlap of GPL103. Hence if~~ a train has stopped at ~~the a~~ station adjacent to GPL103 the non-stop Technical Headway ~~demonstrated in the example~~ would be extended by the additional time taken for the first train to stop at the platform, its dwell time and the additional time taken for acceleration until its rear is clear of the overlap ~~or supervised location (ETCS).~~

Additional Planning Headways should be produced where there are clear differences in stopping pattern to reflect the regular scenarios. It should be noted that a variation in planned dwell time will clearly affect the applicable Planning Headway, such that headways cannot be seen in isolation from dwell times let alone any performance differential between various types of rolling stock.

1.5.5 Application of Planning Headways

Where different Planning Headways are provided when following stopping and non-stop trains their application should be made as follows:

<i>The below are the minimum headways applicable, and do not account for any differential that should apply. These apply where there are applicable numerical headways</i>				
First train ↓		Second train		
		Arrive	Pass	Depart
	Arrive	n/a*	n/a†	n/a
	Pass	Non-stop Platform Reocc.	Non-stop	Non-stop
	Depart	Platform Reocc.	Stopping	Stopping

* Depends on departure time of first train plus Platform Reoccupation

† Depends on departure time of first train plus stopping headway

Applicable Platform Reoccupation values can be found in the relevant section 5.3 of the TPRs. Where no Platform Reoccupation value is quoted then the applicable non-stop headway should be applied.

The above table assumes use of the same platform. The same should apply where different platforms are available, excepting that separate margins for diverging or converging movements may apply and Platform Reoccupation is only relevant where the same platform is being used. Consecutive arrivals on different platforms from the same line should be planned as per the non-stop headway unless other rules are specified.

1.5.6 Diverging or Converging Movements

In circumstances where trains diverge (pass or depart from one common line to different lines) or converge (arrive or pass from different lines to one common line) then different margins may apply. Any such differences will be shown as junction margins in Section 5.3 of TPRs. If there is no specific converging or diverging margin then headway must be applied.

1.5.7 Absolute Block and Track Circuit Block Headways

Absolute Block is a signalling system that allows only one train to be in a block section at the same time. The block indicator is used to indicate whether the line between adjacent signal boxes is clear or occupied

Timetable Planning Rules must always state whether an Absolute Block section is *inclusive* or *exclusive* of the timing point.

Within the Timetable Planning Rules, AB indicates locations where absolute block signalling applies. Here the headway is to be calculated from the transit time of the first of each pair of trains running between the stated timing points. A value "x" shall be added to the transit time to allow for the signaller's actions and sighting of the relevant signal. The planning headway is shown as "AB+x".

AB methodology may also be used to express the headway in other areas (e.g. Track Circuit Block), the value "x" including the time taken to reset the route, clear the signal on entry to the section and sight the relevant signal.

Track Circuit Block is defined as a method of signalling trains in a section of line using track circuits or other means of automatic train absence detection and without using block instruments.

For the purposes of Timetable Planning, the headways section will only contain numeric values or Absolute Block values – Track Circuit Block may be referenced in the notes but will have a planning value of 'AB+x'.

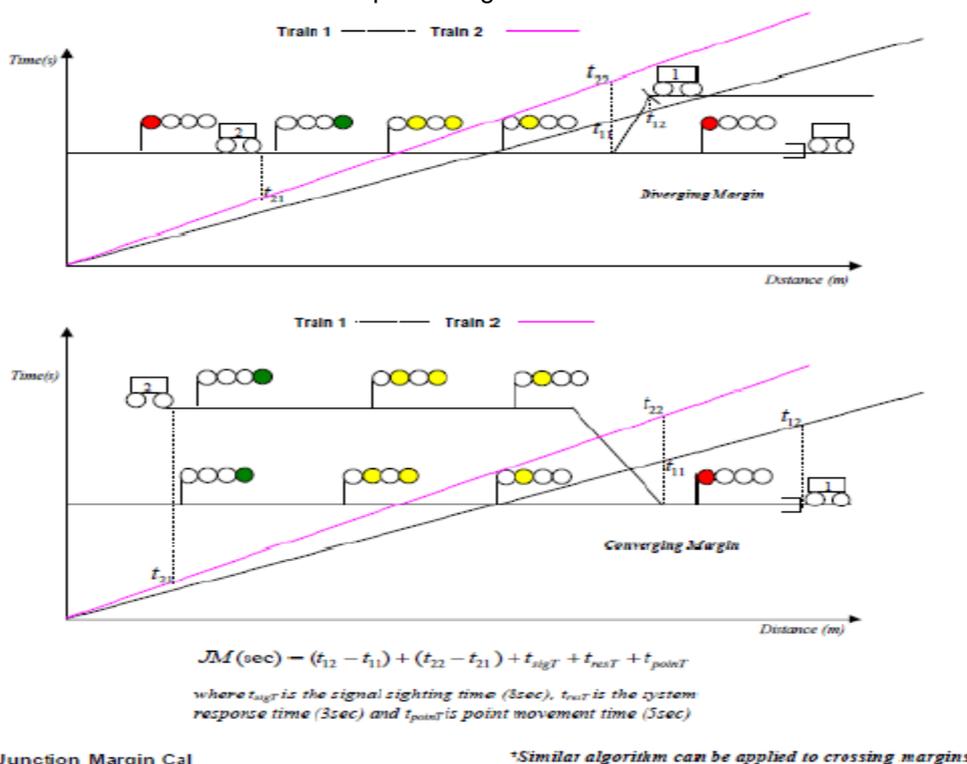
Default planning of Absolute Block and Track Circuit Block sections require Train A to have passed/departed the block before train B can enter/stop within the block (ie. section is inclusive of timing points), unless otherwise stated as exclusive.

1.6 Junction Margins

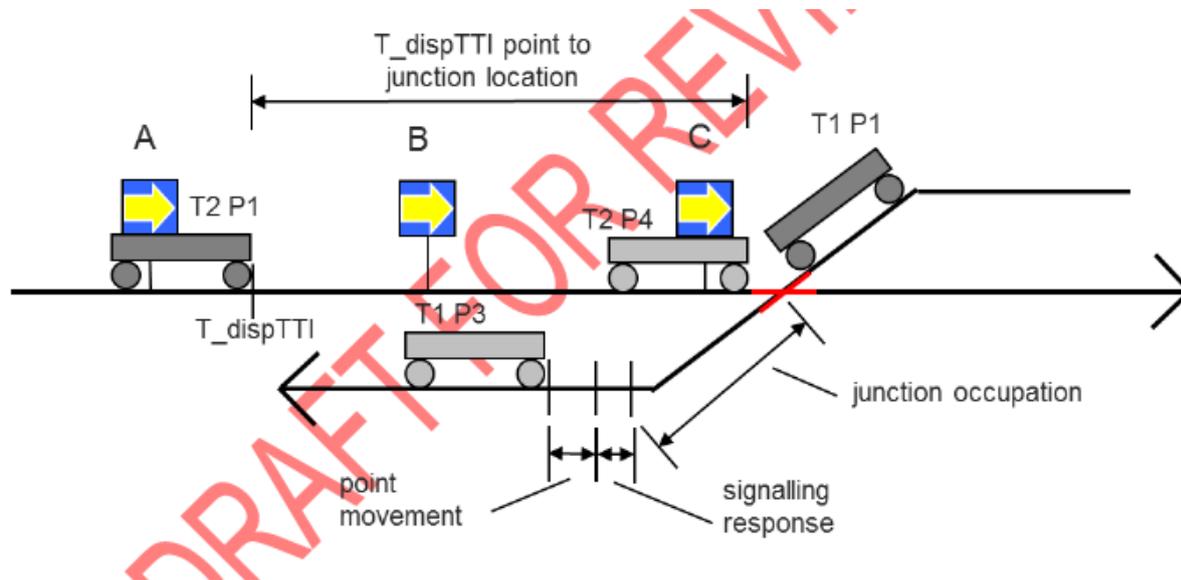
- 1.6.1 The values listed in Section 5.3 of the TPR are Junction Margins and Station Planning Rules. **This section covers calculating margins for both conventional and European Train Control System signalling.**
- 1.6.2 A Junction Margin is the minimum permissible time interval between two trains that are performing conflicting moves at a timing point, such that the second train can meet its SRT. This is expressed in multiples of half minutes derived from the technical value expressed in seconds.
- 1.6.3 Where necessary and appropriate, differential junction margins shall be created for different combinations of:
- Train type (including weight, length and speed)
 - Stopping or passing movements
 - Diverging or converging movements

For example, a train accelerating from rest across a junction will require a greater margin to avoid impact on the second train, than a train crossing the same junction at line speed. The stopping pattern of both trains must also be taken into account so that acceleration or deceleration relative to line speed is taken into account.

- 1.6.4 The calculation of a junction margin consists of a number of components:
- 1) Time taken between the front of the first train passing the timing point and its rear clearing the relevant track circuit or axle counter
 - 2) Time taken for the signaller or Automatic Route Setting to reset the route and the signals to clear **or updated Movement Authority issued** for the second train
 - 3) Time taken between the second train sighting the relevant signal, such that it can meet its SRTs, **or from point before ETCS indication to reduce speed prematurely** and its front passing the timing point



<Figure 31 from NR-STE-SA-REP-00423_A04>



Please refer to section 1.14 for details of ETCS specific static allowances.

- 1.6.5 A basic junction margin is the sum of 1, 2 and 3 rounded to the next half-minute above to form the planning margin.
- 1.6.6 If this does not provide a sufficient performance buffer, performance uplift will be added. This will be an agreed uplift to the sum of the 1 and 3, before adding 2 (this is fixed) and finally rounding to the next half-minute above or below. For example, train 1 takes 73 seconds to clear the relevant track circuit after leaving the timing point (1). The signaller takes 9 seconds to reset the route for train 2 across the junction (2). In order for train 2 to meet its SRTs, the train takes 62 seconds to reach the

~~timing point for the junction (3). Ergo, the margin is (73 + 9 + 62) seconds = 144 seconds, + 6 seconds uplift to round up to 150 seconds, with any additional uplift agreed as appropriate.~~

- 1.6.7 Network Rail will seek to model most combinations of stopping and non-stopping trains for passenger and freight services as agreed with stakeholders.

1.7 Platform Reoccupation

- 1.7.1 The values listed in Section 5.3 of the TPR are Junction Margins and Station Planning Rules.
- 1.7.2 Platform Reoccupation is the time between one train departing and a second train arriving at a location at the same platform in the same direction **or movement authority**. This value need not be calculated on the least restrictive signal aspect, but the second train in the sequence must be able to meet its SRTs.
- 1.7.3 In the absence of a specific value for Platform Reoccupation the value may be taken as the applicable non-stop Planning Headway, noting however that Planning Headway and Platform Reoccupation are not linked.
- 1.7.4 Platform Reoccupation is measured separately to station dwell time.
- 1.7.5 The calculation of a Platform Reoccupation will be undertaken (in seconds) by either:
- Time taken for the first train to depart the timing point and its rear clearing the relevant track circuit or axle counter; plus
 - System reset time (normally 4s); plus
 - Time taken for the second train to see the signal approaching the timing point **or point before ETCS indication to reduce speed prematurely** to arriving at the timing point, such that it can meet its SRTs, and it arriving at the timing point
- 1.7.6 The total will rounded as to the next half-minute above to form the planning value, plus a performance uplift as required.
- 1.7.7 Relevant combinations of types of train, as agreed with stakeholders, will be considered when calculating Platform Reoccupation.

1.8 Station Dwell Times

- 1.8.1 The values listed in Section 5.3 of the TPR are Junction Margins and Station Planning Rules.
- 1.8.2 Station Dwell Times are the minimum time shown in timetables for trains to be at a stand in a station, from when train wheels stop on arrival to when wheels start on departure.
- 1.8.3 It includes time for doors to be released open, for passengers to leave and join the train, doors to be confirmed shut and for the train to be dispatched.
- 1.8.4 A station dwell includes time for doors to be released open, for passengers to leave and join the train, doors to be confirmed shut and for the train to be dispatched and will reflect:
- Time of day
 - Loading patterns
 - Rolling stock
 - Station staffing arrangements
 - Attaching and detaching
 - Catering
 - Crew changes
 - Miscellaneous operational instructions
 - Direction of travel

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- 1.8.5 Dwell time should take account of local operational railway characteristics. and should be reviewed regularly to account for any changes to these.
- 1.8.6 To propose a rounded value for a station dwell, a measured value should first be established using the mean value from a data source. The measured value should take into consideration all relevant variables listed in 1.1.3 and should be calculated to the second.
- 1.8.7 To maintain rounded dwell times closely to the measured values, cumulative rounding should be used. Rounded dwell times should be sufficient across a section of route to meet or exceed cumulative measured values.
- 1.8.8 Where the cumulative measured dwell time exceeds the planned dwell time by 15-seconds or more, that dwell should be rounded up to the next 30-second increment and the cumulative count reset to zero, subject to 1.8.9 – 1.8.13 below.
- 1.8.9 If the cumulative value is 14 secs or less, but the measured dwell at a single location is 15-secs or more over the planned dwell, the measured value should be rounded up to the next 30-second increment and the cumulative count reset to zero, subject to 1.1.9 – 1.1.13 below.

		Measured Value (secs)	Current Dwell (secs)	Cumulative Value (secs)	Proposed Dwell (secs)
Section	Station Dwell A	61	60	1	60
	Station Dwell B	38	30	9	30
	Station Dwell C	28	30	7	30
	Station Dwell D	31	30	8	30
	Station Dwell E	32	30	10	30
	Station Dwell F	36	30	16	60
Time across section:		226	210		240

- 1.8.10 The principle is that dwell times are balanced in isolation. However, historically there have been occasions where rounded dwells are balanced against inherent resilience in the SRTs, resulting from the SRT rounding process. Where this is perpetuated it must be supported by data that demonstrates this capability at the applicable location.
- 1.8.11 If the rounding of a station dwell and a SRT is combined, the cumulative value for the planned SRTs across the section that the station is in, must be equal to exceed the cumulative value for the technical SRTs of that same section by at least the deficit between the measured and planned value of the station dwell.
- 1.8.12 Any SRT selected to offset a deficient planned dwell must not also be used to offset another SRT or dwell.

		Dwell				Current SRTs		
		Measured Value (secs)	Current Dwell (secs)	Cumulative Value (secs)	Proposed Dwell (secs)	Technical SRT (mins)	Planned SRT (mins)	Cumulative Value (secs)
Section	SRT 1					02:34	02:30	00:04
	Station Dwell A	34	30	4	30			
	SRT 2					03:12	03:00	00:16
	Station Dwell B	34	30	8	30	05:06	05:30	-00:08
	SRT 4					03:55	04:00	-00:13
	Station Dwell C	38	30	16	30	03:14	03:30	-00:29
Time across section:		106	90		90	18:01	18:30	

- 1.8.13 When a dwell review is carried out, if it is established that the rounding of a measured dwell is balanced with the rounding of an SRT then the dependency between the dwell and the SRT should be documented in the relevant Route Timetable Planning Rules.
- 1.8.14 If currently a standard dwell value of 45-seconds applies, then the measured values across a section should not exceed the rounded values if this is to be perpetuated.
- 1.8.15 A best practice guide to this methodology can be found in Appendix J.

- 1.8.16 Where no station-specific minimum value is specified a standard value of half a minute will apply.
- 1.8.17 Timetable Participants are responsible for ensuring that station dwell times are robust for operational usage and takes account of local operational railway characteristics.

1.9 Turnround Times

- 1.9.1 The values listed in Section 5.3 of the TPR are Junction Margins and Station Planning Rules.
- 1.9.2 Turnround Times are the minimum time required for rolling stock to be prepared on completing one service before it forms the next service.
- 1.9.3 Where necessary and appropriate, differential turnround times shall be created for different combinations of:
- Time of day
 - Rolling stock
 - Station staffing arrangements
 - Attaching and detaching
 - Journey distance
 - Miscellaneous operational instructions
- 1.9.4 Timetable Participants are responsible for ensuring that turnrounds are robust for operational usage and takes account of local operational railway characteristics.

1.10 Run-round Times

- 1.10.1 The values listed in Section 5.3 of the TPR are Junction Margins and Station Planning Rules.
- 1.10.2 Run-round time is the minimum time between arrival and departure at a timing point when a locomotive or locomotives are moved from one end of a train to the other, including detachment, movement, attachment and safety checks.
- 1.10.3 It involves detaching the locomotive(s), shunting via an adjacent line, and returning to reattach to the train at the opposite end.
- 1.10.4 Typically, these movements are used in the operation of freight trains, although they are also used on locomotive-hauled passenger trains.
- 1.10.5 Timetable Participants are responsible for ensuring that Run-round times are robust for operational usage and take account of local operational railway characteristics.

1.11 Engineering Recovery Allowances

- 1.11.1 Engineering Recovery Allowance is additional time included in train schedules to cover the impact of planned temporary speed restrictions associated with engineering works on the network. Engineering Recovery Allowances may be applied as either a:
- Value between two timing points expressed in multiples of half-minutes
 - Percentage uplift included in SRTs
- 1.11.2 Where necessary and appropriate, consideration to be given to:
- Time of day
 - Day of week
 - Type of train
 - Routing of train and geographical distribution of allowance
 - Impact of restrictions of use e.g. single line working, weaving, SIMBIDS

1.12 Introduction of new SRTs in support of Train Operator Variation Requests

- 1.12.1 Changes to Timetable Planning Rules may be made for the addition of new SRTs, where they did not previously exist, in support of a Train Operator Variation Request (TOVR).
- 1.12.2 From D-26 and during the relevant Timetable Period, Timetable Participants may wish to vary either the New Working Timetable, if it is before the Timetable Change Date, or otherwise the Working Timetable on an ad hoc basis by submitting a TOVR. On occasions where the TOVR is not submitted with a full set of SRTs, SRTs may be proposed, consulted and added outside of the timescales outlined in Part D 2.2 of the Network Code.
- 1.12.3 There are three processes by which new SRTs can be introduced in support of TOVRs. The first two options refer to TOVRs submitted that require SRT consultation, in which the TOVR is not required to run immediately. The third option refers to TOVRs submitted that require expedited SRT consultation. The default options are 1 and 2, should a TOVR need to be expedited, the operator must state when that the service is due to run within the submission.

1.12.3.1 **Option 1: TOVR submitted with new SRT proposal from Timetable Participant**

- Timetable Participant submits TOVR with missing SRTs and proposal for new SRTs to Network Rail (NR)
- NR receives TOVR and proposal for new SRTs and pauses TOVR response period
- NR undertakes quality assurance activity of proposed SRTs (within 2 5 working days of receipt)
- If proposed SRTs pass quality assurance, NR consult new SRTs with affected Timetable Participants (5 working days). If proposed SRTs do not pass quality assurance, the TOVR is rejected and the Timetable Participant is asked to resubmit their request with revised SRT proposals.
- After the consultation period ends, NR considers responses and makes a decision about whether to take SRTs forward, make amendments or reject the proposal (within 1 working day)
- NR informs affected Timetable Participants of the decision and inputs SRTs into Bplan (within 1 working day)
- TOVR response period restarts, usual validation process follows

1.12.3.2 **Option 2: TOVR submitted with missing SRTs**

- Timetable Participant submits TOVR with missing SRTs
- NR receives TOVR and pauses TOVR and provides Timetable Participant with option to propose new SRTs or to ask NR to undertake SRT calculation exercise and propose new SRTs
- If Timetable Participant chooses to propose new SRTs, follow Option 1
- If Timetable Participant requests that NR proposes new SRTs, NR will calculate SRTs (within 7 working days). NR may use computer modelling, TRATIM, observed data, or other sources of data that it deems appropriate in calculating the SRT value.
- NR consult new SRTs with affected Timetable Participants. The consultation period is 5 working days.
- After the consultation period ends, NR considers responses and makes decision about whether to take SRTs forward, make amendments or reject the proposal (within 1 working day)
- NR informs affected Timetable Participants of decision (within 1 day)
- Timetable Participant re-submits TOVR with new SRTs to NR and usual validation process follows

1.13.3.3 **Option 3a: TOVR submitted with missing SRTs (A4C schedules only)**

- Timetable Participant submits TOVR with missing SRTs
- NR receives TOVR and validates using TRT generated within TPS, confirming that this looks to be accurate.
- NR informs Timetable Participant of missing SRT at time of response to TOVR and gives option to propose new SRTs or to ask NR to undertake SRT calculation exercise and propose new SRTs (Option 1 or 2)
- Option 1 or 2 is followed, SRT is finalised and schedule updated as required.

Option 3b: TOVR submitted with missing SRTs, requiring expediated consultation

- Timetable Participant submits TOVR with missing SRTs and proposal for new SRTs to Network Rail (NR)
- NR receives TOVR and proposal for new SRTs and pauses TOVR response period
- NR undertakes quality assurance activity of proposed SRTs (within 2 working days of receipt)
- If proposed SRTs pass quality assurance, NR consult new SRTs with affected Timetable Participants (3 working days).
- After the consultation period ends, NR considers responses and makes a decision about whether to take SRTs forward, make amendments or reject the proposal. SRTs taken forward will be input into B-plan (within 1 working day).
- TOVR response period restarts and usual validation process follows

1.13 Headcode designations and Terminology in the Timetable Planning Rules

1.13.1 The fifth character must match one of the following based on where the train terminates –

B	Kent and Sussex
C	Wessex
D	Wales & Western
E	Central & West Coast South and East Midlands
F	North West
G	LNE
H	Anglia
L	Scotland

The Sixth character is the next sequential alpha available / freeform

1.13.2 The use of Z as the second character is prohibited for WTT services. It is for use only by Special Traffic Trains and STP additional trains *not* conforming to any route code.

1.13.3 To assist with understanding of the Route documents, exceptions to the standard Rules will be in the order listed in 1.13.4.

1.13.4

#	Freight exception (1)
\$	Freight exception (2)
%	Passenger exception (1)
&	Passenger exception (2)
*	General/misc. exception (1)
+ ^	General/misc. exception (2)

Any subsequent exceptions are denoted by doubling up the symbol e.g. General exception (3) is **, (4) is ++ ^^ and so on.

1.13.5 Timing Allowances – definitions and usage –

1.13.5.1 Engineering Allowance – allowance added to schedules to accommodate planned speed restrictions. This allowance is required to compensate for loss of speed and the resultant increase in running time in a section. Engineering time is stated in the Route Timetable Planning Rules document and reviewed in conjunction with Network Rail Route Access Planning.

1.13.5.2 Pathing Allowance – allowance added to a schedule to compensate for an increase in running time in a section due to the service sighting a signal aspect that would prevent it from meeting its SRT and to meet applicable Timetable Planning Rules.

1.13.5.3 Adjustment Allowance – ~~allowance added to a schedule to account for the service not doing the regular move for the SRT in the section (ie. SRT is for the fastest move in the section and the planned service is doing something else, for example turning onto a branch line).~~ allowance used where train will be performing a move that means it will be unable to meet its SRT for that section. For example diverging at a slow speed junction where the SRT is based on the fastest route. Adjustment allowances are documented in the Route Timetable Planning Rules.

1.13.5.4 Performance Allowance – allowance added to a schedule to account for anticipated time loss across sections of a journey. These may be documented in the Route Timetable Planning Rules.

1.14 Notes and Static Allowances for ETCS Technical Values

- 1.14.1 As ETCS will make use of belizes to determine train location, it is likely that there will be an increase in timing locations. It is imperative that as part of this the impact on ARS systems is understood and changes to the ARS systems agreed as part of the process for moving towards ETCS timings.
- 1.14.2 ETCS timings for timetabling should be based on the following –
- 1.14.2.1 Maximum length and tonnage of the specified path.
- 1.14.2.2 To account for variability in rolling stock, an agreed uplift to the technical value.
- 1.14.3 When calculating technical values in ETCS signalled areas, the following static allowances must be assumed.
<Table 4 and 5 from NR-STE-REO-00423_A04>

Parameter	Dependencies	Types	Passenger Value	Freight Value
ETCS Response Time	Type of interlocking technology in use at the TIPLOC location. RBC & EVC processing time GSM-R propagation time	<ul style="list-style-type: none"> Relay based (RBI) Solid state (SSI) Computer based (CBI) 	8 seconds	8 seconds
Point Movement Time (not for headway)	Type of point operating machine	<ul style="list-style-type: none"> HW 1000, 2000 Clamplock Conventional, Hydrive, Inbearer Westinghouse 63, M3 	5 seconds	5 seconds
Braking Curve Supervision Time	Braking rate of train Braking technology of train Service brake availability Inclusion of Time To Indication (T _{dispTTI}) Rolling stock dependant	<ul style="list-style-type: none"> N/A 	23 seconds	33 seconds
Total			36 seconds	46 seconds

Parameter	Acronym	Passenger Value	Freight Value
Time to indication (TTI) to Indication	T_dispTTI	14 seconds [*]	14 seconds [*]
Indication to Permitted	T_indication	5 seconds [#]	15 seconds ^{#†}
Permitted to Service Brake Intervention	T_driver	4 seconds [#]	4 seconds [#]
Service Brake Intervention to Emergency Brake Intervention	Tbs2	0 seconds [‡]	0 seconds [‡]
Total		23 seconds	33 seconds

2 Timetable Planning Process - Permanent Timetable

2.1 Introduction

This section outlines information and further detail to assist with Timetable Planning in addition to that stated in the Network Code Part D. The Network Code can be found at – <https://www.networkrail.co.uk/industry-and-commercial/information-for-operators/>

2.2 Prior Working Timetable

- 2.2.1 Network Rail will establish a Prior Working Timetable database in ITPS at D-45. This will be based on the previous Working Timetable published at D-26 in the timeline for the previous Working Timetable.
- 2.2.2 Network Rail acting reasonably and if appropriate in consultation with Timetable Participants can decide that it will delete Train Slots from the Prior Working Timetable. This is if the Timetable Participant does not have existing rights or will not hold firm rights to the Train Slot by the time the New Working Timetable starts.
- 2.2.3 As a result of the appeals process for the Previous Working Timetable Network Rail may amend the Prior Working Timetable.
- 2.2.4 The Prior Working Timetable will be transmitted to Timetable Participants through the Timetable Participants access to ITPS and by distribution as a PIF file.

2.3 Specialised and Congested Infrastructure

- 2.3.1 Regulations 22 and 23 of The Railways Infrastructure (Access and Management) Regulations 2005 provide for the declaration, by Infrastructure Managers (in this context, Network Rail), of infrastructure (a) to which they wish to apply special rules for capacity allocation or (b) believe congested to the extent that additional capacity requests cannot be catered for. Such declarations will be made via the Network Statement. Where any special rules are to be applied they will also be contained in this document.

2.4 Strategic Capacity

- 2.4.1 In accordance with the Management of Strategic Capacity on the Network Code of Practice, Network Rail will publish the Strategic Capacity Statement which is relevant to the preparation of the New Working Timetable no later than D-55 showing a list of Strategic Train Slots it intends to include in the Working Timetable.
- 2.4.2 Strategic Train Slots have the notation 'QJ' or "QP" after the train ID.
- 2.4.3 The document can be found on the Network Rail website - <https://www.networkrail.co.uk/industry-and-commercial/information-for-operators/> [section titled 'Operational Rules (EAS-TPRs)']

2.5 Calendar of Events

- 2.5.1 In accordance with the Network Code, Network Rail will publish a Calendar of events setting out a period of at least 4 years showing events which are likely to require significant changes to the Working Timetable in a future bi-annual timetable revision process.
- 2.5.2 Unless specified, for each listed Event an Events Steering Group will be set up consisting of representatives from Network Rail, relevant funders and any affected Timetable Participants
- 2.5.3 The document can be found on the Network Rail website -
<https://www.networkrail.co.uk/industry-and-commercial/information-for-operators/> [section titled 'Operational Rules (EAS-TPRs)']

2.6 Priority Date Access Proposals

- 2.6.1 Access Proposals are to be sent the Lead Operational Planning Project Manager (LTP) for each Timetable Participant is shown in Appendix B. Network Rail will provide a template document for Timetable Participants to use.
- 2.6.2 Managed Station Opening Hours are shown in Appendix F. These are now included to assist Timetable Participants plan their early morning / late night services.

2.7 Finalisation of the New Working Timetable

- 2.7.1 Network Rail will provide Timetable Participants with access to the evolving timetable plan through access to ITPS. It is anticipated that there will be frequent bilateral and multilateral dialogue during the finalisation process to eliminate errors and omissions.
- 2.7.2 At D-26 Network Rail will publish the New Working Timetable, which is transmitted to Timetable Participants by the LTP planning teams or the Railops Portal at D-26.
- 2.7.3 New Working Timetables will be accompanied by a written commentary to assist Timetable Participants in identifying changes from the Prior Working Timetable and/or their Access Proposals. The commentary shall include a list of trains not included in the New Working Timetable with the reasons why they are not included. Plus details of any significant flexing of trains with the reason for the use of flex.

2.8 Appeal of Network Rail Decisions regarding the New Working Timetable

- 2.8.1 The New Working Timetable Train Slots will be loaded into TRUST by Network Rail between D-21 and D-18 following the Publication of the New Working Timetable, unless otherwise consulted.
- 2.8.2 Following resolution of appeals, Network Rail will advise all affected Timetable Participants of any amendments to Train Slots previously proposed as soon as practicable and upload any changes to TRUST.

2.9 Terminology

2.9.1 For the avoidance of doubt, the following terms and expressions are used inter-changeably when referring to timetables:

Principal Timetable Change Date 2022	11 th December 2022	(Start Date for 2023 Principal Timetable)
Subsidiary Timetable Change Date 2022	21 st May 2023 * timetable currently under review	(Start Date for 2023 Subsidiary Timetable)

2.10 Working Timetable Amendments

2.10.1 Network Rail will ONLY publish the Working Timetable in electronic (PDF) Format.

2.11 Sectional Running Times

2.11.1 Refer to the Route Timetable Planning Rules

Appendix A - Timetable Development Dates - 2023 Timetable

Due to the impact of the pandemic, timetable development timescales are being regularly reviewed. **Subsidiary Change dates currently under review and unavailable.**

Timetable Development Dates	Principal Change	Subsidiary Change
D73 - Formal Notification of Process Dates	16/07/2021	
International Freight Train Notice		
D70 Issue the Draft International Freight Train Notice	06/08/2021	
D70 to D65 Consult the Draft International Freight Train Notice	10/09/2021	
D60 Issue the Final International Freight Train Notice	15/10/2021	
Revision of Timetable Planning Rules		
D64 – Start of NR Consultation of Proposed Changes to Rules	17/09/2021	
D60 – End of NR consultation of proposed changes to Rules	15/10/2021	
Rules to Planning Publications	13/10/2021	
D59 – Publish ‘Draft Rules’	22/10/2021	
D54 – Operator Responses to ‘Draft Rules’	26/11/2021	
D54 to D44 – NR review Operator Responses		
Rules to Planning Publications	26/01/2022	
D44 – Publish ‘Final Rules’	04/02/2022	
D41 – End of Appeal Period ‘Final Rules’	25/02/2022	
Initial Consultation Period		
D64 – Publication of draft Calendar of Events	17/09/2021	
D55 – Publication of Strategic Capacity Statement	19/11/2021	
D55 – Notification by TT Participants of major TT changes	19/11/2021	
D55 – Start of Initial Consultation Period	19/11/2021	
D54 – Publication of Final Calendar of Events	26/11/2021	
D45 – NR to provide copy of ‘Prior Working Timetable’	28/01/2022	
D48 – Notification of Provisional International Paths	07/01/2022	
D34 – Priority Date	15/04/2022	
Risk Management		
D56 – Train Plan Hazard Identification (TP-HAZID)	12/11/2021	
D38 – Train Plan Risk Assessment and Mitigation (TP-RAM)	18/03/2021	
D33 – Train Risk Evaluation Panel (TP-REP)	22/04/2022	
D30 – Train Plan Risk Assurance Panel (TP-RAP)	13/05/2022	
Timetable Preparation Period		
D34 – Start of Timetable Preparation Period	15/04/2022	
D23 – NR Publish New Working TT	01/07/2022	
D21 – Operator responses to New WTT	15/07/2022	
D19 – End of Appeal Period ‘New Working Timetable’	29/07/2022	
D15 - Timetable Briefing process complete	26/08/2022	
D14 - CIF Electronic Data available	02/09/2022	
D12 – Publication of Amended Base Timetable	17/09/2021	
D9 – Timetable Extract taken for NRT Edit	08/10/2021	
D8 - Corresponding Day Timetable Dates Proposed to Operators	14/10/2022	
D4 - NRT Data sent to publishers	11/11/2022	
Timetable Commencement Date	11/12/2022	
Timetable End Date	20/05/2023	

Appendix B - Operational Planning Project Managers (LTP)

Route & Contact Details	Location	Lead Customers
Anglia Route Project Team Chris Deal Christopher.Deal@networkrail.co.uk Lucy Russell Lucy.Russell@networkrail.co.uk	Milton Keynes	c2c Arriva Rail London Abellio Greater Anglia MTR Elizabeth Line London Underground
LNE and East Midlands Route Project Team Stephen Newman Stephen.Newman@networkrail.co.uk	Milton Keynes	London North Eastern Railway First Transpennine Express Arriva Northern Rail East Midlands Trains Grand Central Hull Trains Tyne & Wear Metro North Yorkshire Moors Railway Sheffield Supertram
National Freight Rolling Spot Bid Team Gareth Brooks & Laura Heslop Gareth.Brooks@networkrail.co.uk Laura.Heslop@networkrail.co.uk	Milton Keynes	Colas Rail Devon and Cornwall Railways DB Cargo Direct Rail Services Ltd Freightliner Heavy Haul Freightliner Intermodal GB Railfreight Rail Operations Group
North West & Central North Route Project Team Anthony Briedis Anthony.Briedis@networkrail.co.uk Chris Deal Christopher.Deal@networkrail.co.uk	Milton Keynes	Chiltern Railways London Midland Merseyrail Virgin Trains West Coast
Scotland Route Project Team Graeme Lotz Graeme.Lotz@networkrail.co.uk	Milton Keynes	Abellio Scotrail West Coast Railway Company Cross Country Sercu Caledonian Sleeper
South East Route Project Team Lee Eastwood Lee.Eastwood@networkrail.co.uk	Milton Keynes	Eurostar Southeastern Govia Thameslink Railway
Wessex Route Project Team Lee Eastwood Lee.Eastwood@networkrail.co.uk	Milton Keynes	South Western Railway and Island Line
Western and Wales Route Project Team Damian Draper Damian.Draper@networkrail.co.uk	Milton Keynes	Transport for Wales Rail Limited (TfWRL) Great Western Railway Heathrow Express Heathrow Connect
Network Services Martin Spinks Martin.Spinks@networkrail.co.uk	Milton Keynes	Network Measurement Trains

Appendix C - Access Proposals for Dated Trains

2.12 General Principles

- 2.12.1 Limitations are necessary on the number of dated trains that can be included in the access planning and timetable production processes. A reasonable balance has to be struck between:
- (a) the Access Proposals of Timetable Participants to Access Proposal for dated services;
 - (b) the needs of timetable users to be informed but still have a manageable document;
 - (c) the ability of Network Rail to manage the access planning and timetable production processes and the efficient maintenance and renewal of the rail network;
 - (d) the need for Timetable Participants' customers to be fully informed of planned services available.
- 2.12.2 NRT Policy Board has determined a number of guidelines for inclusion of dated trains within NRT and this procedure has been devised to enable Network Rail and Timetable Participants to observe those guidelines.
- 2.12.3 A Timetable Participant may use the permanent timetable process to seek dated Train Slots in accordance with paragraphs 1.2 and 1.3 of this Appendix and Network Rail will develop such Train Slots unless it can reasonably demonstrate under the Decision Criteria that this would compromise the integrity of the access planning and timetable production process or would lead to an unmanageable timetable.
- 2.12.4 If a Timetable Participant wishes to use the permanent timetable process to seek for dated Train Slots which are not in accordance with paragraphs 1.2 and 1.3 of this Appendix, it must obtain the prior agreement of Network Rail that those dated Train Slots will be published in NRT and/or the appropriate WTT. In giving or withholding this agreement, Network Rail will take into account the Decision Criteria and requirements (a), (b), (c) and (d) above.
- 2.12.5 Network Rail will be required to use reasonable endeavours to plan engineering work so as to avoid the requirement for more than two variants per dayset for our RHTT.

2.13 Passenger Trains to be Published in NRT

- 2.13.1 Access Proposals and Amend Access Proposals for dated trains must comply with the following requirements except where specific exceptions have been agreed between a Timetable Participant and Network Rail:
- (a) Wherever possible, dates of operation should match the daysets of each NRT table on which the train will appear. Where this is unachievable, further variation is permitted provided the number of dated versions of a train within a dayset on any table within the NRT is kept to a minimum.
 - (b) Services not required to run on Bank and Public Holidays should be identified by use of the BHX or GHX symbols. Other service requirements on Bank and Public Holidays should be requested for through the permanent timetable process where:-
 - (i) a Bank/Public Holiday dayset is to be included in NRT,
 - (ii) where Access Proposals are made in accordance with paragraph 1.2.1 (a) above, or
 - (iii) where it has been agreed between a Timetable Participant and Network Rail that specific additional or amended trains will appear in NRT.

All remaining service requirements on Bank and Public Holidays will be dealt with as Variation Requests and should not be requested through the permanent timetable process.

- (c) Any Access Proposals not complying with requirements (a) and (b) will be regarded as Variation Requests and will be dealt with by Network Rail in the Supplemental Period following the permanent timetable process.

2.14 Trains to be Published in Working Timetables

- (a) Access Proposals for Passenger services which will be published in NRT and WTTs must comply with the requirements of Section 1 above.
- (b) Access Proposals for services which will be published in WTTs only must match the daysets of each WTT table on which the train will appear, or must run in a standard Train Slot on at least 4 related occasions within the currency of the WTTs except where specific exceptions have been agreed between a Timetable Participant and Network Rail.
- (c) Access Proposals not complying with requirements (a) or (b) will be regarded as Variation Requests and will be dealt with by Network Rail in the Supplemental Period following the timetable iteration.

2.15 NRT Daysets

See details in Route Timetable Planning Rules documents.

2.16 WTT Daysets

See details in Route Timetable Planning Rules documents.

2.17 Summer Dated Services

The standard period of operation of Summer Dated services is:

Monday 15/05/2023 to Sunday 03/09/2023 inclusive

Timetable Participants are encouraged to adopt these dates but may propose other dates for specific services where appropriate.

2.18 Autumn (Leaf-Fall) Timetables

The standard period of operation of Autumn Dated services for 'Leaf-Fall' timetables are from the second Sunday in October:

Sunday 08/10/2022 to Sunday 11/12/2022

2.19 Appeals

- 2.19.1 If a Timetable Participant disputes any decision of Network Rail arising from this Procedure, it may appeal against that decision by advising the Access Disputes Secretary within 5 Working Days of receipt of Network Rail's notification of that decision. Any such appeal will be dealt with as though it had been made in accordance with Condition D5 of the Network Code.

Appendix D - Connectional Arrangements

2.20 General Principles

- 2.20.1 Timetable Participants should state any requirements for connections within their Access Proposals. For each Train Slot in an Access Proposal the Timetable Participants should state any key connecting services and the connecting location. Connectional Allowances shown in Timetable Planning Rules and/or NRT must be observed. Where one of the connecting services is the responsibility of another Timetable Participant and Network Rail has not at that time published agreed timings for the Train Slot in question, the Timetable Participants should establish from the other Timetable Participant the likely timings of the connecting service and show this in the Access Proposal accordingly.
- 2.20.2 Network Rail will deal with these key connections as an integral part of the Access Proposal consulting with Timetable Participants where proposed flexing has an effect on key connections. Network Rail's proposal will highlight any key connections which are not as Access Proposal.
- 2.20.3 A Timetable Participant's acceptance of a Network Rail proposal includes acceptance of associated connections.
- 2.20.4 Amendment of an agreed Train Slot will require the agreement of any other Timetable Participant having a key connection into or out of the Train Slot in question if the amendment results in a material change to the duration or feasibility of the key connection.

Appendix E - Definition of Access Proposal / Revised Access Proposal

2.21 General Principles

2.21.1 Part D of the Network Code defines an Access Proposal as when a Timetable Participant wishes to exercise any Firm Rights and/or Contingent Rights and/or any expectation of rights to obtain Train Slots in respect of the relevant Timetable Period, where those rights were not exercised to obtain Train Slots in the Prior Working Timetable; and/or (b) it wishes to make changes to any Train Slot in the Prior Working Timetable; and/or (c) it wishes to set out its requirements in response to a notification by Network Rail under Condition D2.4.6.

2.22 Train Operator Variation

2.22.1 From D-26 and during the relevant Timetable Period, Timetable Participants may wish to vary either the New Working Timetable, if it is before the Timetable Change Date, or otherwise the Working Timetable on an ad hoc basis by adding an additional Train Slot on one or more occasions, amending the detail of one or more Train Slots, removing one or more Train Slots.

2.23 Contents of an Access Proposal

The detailed requirements of an Access Proposal are listed under Condition D2.5.1. Individual data items within each of these categories are listed below and are shown as mandatory (M) or optional (O).

E1 Access Proposal Identifiers

(Required for each separate Access Proposal)

(i)	Timetable Participant identity	M
(ii)	Timetable period	M
(iii)	Access Proposal type (Iterative or variation)	M

E2 Fixed Train Header Details

(Required for each separate train)

(i)	train identity	M
(ii)	dates of operation	M
(iii)	origin location	M
(iv)	origin time	M
(v)	destination location	M
(vi)	destination time	M
(vii)	Access Proposal/Proposal status	M
(viii)	BHX marker	O

E3 Variable Train Header Details

(Required at the train origin and for each change en route for each train)

(i)	CeR start location	M
(ii)	service code	M
(iii)	timing load/traction type/max speed	M

(iv)	headcode (2 chrs)	O	
(v)	UIC identifier	O	
(vi)	DOO indicator	O	
(vii)	accommodation	M	(for passenger services)
(viii)	branding	O	
(ix)	catering	O	
(x)	TRUST operating characteristics	O	
(xi)	reservations	O	
(xii)	sleeping accommodation	O	
(xiii)	train class	M	
(xiv)	TRUST train category	M	

E4 Train Stops (Commercial Activities)

(Required for each stop for each train where passengers may join and/or alight or an associated commercial activity is required for non-passenger trains)

(i)	location	M	
(ii)	arrival time	M	
(iii)	departure time	M	
(iv)	advertised arrival time	O	
(v)	advertised departure time	O	
(vi)	platform/siding number	M	
(vii)	activity codes	O	

E5 Train Stops (Operational Activities)

(Required for each stop for each train where passengers may NEITHER join and/or alight or an associated operational activity is required for non-passenger trains)

(i)	location	M	
(ii)	arrival time	M	
(iii)	departure time	M	
(iv)	advertised arrival time	-	
(v)	advertised departure time	-	
(vi)	platform/siding number	M	
(vii)	activity codes	M	

E6 Train movements

(Required for each journey leg of each train)

(i)	start location	M	
(ii)	start condition (start or pass)	M	
(iii)	Start time	M	
(iv)	end location	M	
(v)	end condition (start or pass)	M	
(vi)	end time	M	
(vii)	running line code	M	
(viii)	engineering allowance	M	(if applicable)
(ix)	performance allowance	M	(if applicable)
(x)	pathing allowance	M	(if applicable)
(xi)	timing adjustment	M	(if applicable)

E7 Train Associations

(Required for each train association)

(i)	association type	M	
(ii)	associated train id	M	
(iii)	dates applicable	M	
(iv)	location	M	

(v) associated train TOC id M (if not Access Proposals TOC)

E8 Train Formation details
(Required for each train for each section of its journey)

(i) dates applicable	M
(ii) start location	M
(iii) end location	M
(iv) locomotive/MU class	M
(v) train length	M
(vi) maximum speed	M
(vii) trailing load	M
(viii) route availability	M
(ix) special axle load/gauge requirements	M
(ix) applicable RT3973 form	M

Note: Items 6(i) to (iv) and items 7(i) to (iv) can be met by provision of rolling stock diagrams.

Appendix F - Managed Stations Opening Times

Station	Monday to Friday	Saturday	Sunday
NATIONAL			
Birmingham New Street	0415 – 0200	0415 – 0015	0730 – 0200
Bristol Temple Meads	0430 – 0145	0500 – 0145	0700 – 0145
Edinburgh Waverley	0400 – 0045	0400 – 0045	0600 – 0045
Glasgow Central	0400 – 0030	0400 – 0030	0700 – 0030
Leeds	24hrs	24hrs	24hrs
Liverpool Lime Street	0315 – 0040	0315 – 0035	0700 – 0030
Manchester Piccadilly	24hrs	24hrs	24hrs
Reading	24hrs	24hrs	24hrs
LONDON			
Cannon Street	0430 – 0045	0430 – 0045	0630 – 0045
Clapham Junction	Sunday – Thursday 0430-0130	Friday – Saturday – 24hrs for Gatwick Express	0430 - 0130
Charing Cross	0430 – 0055	0430 – 0055	0630 – 0055
Euston	0430 – 0130	0430 – 0200	0515 – 0130
Guildford	0100 Monday– 0400 Saturday	0100 – 0400 Sunday	0100 - 0600
King's Cross	0500 – 0136	0500 – 0111	0530 – 0136
London Liverpool Street	MO 0310 – 0103 TWTWO 0400 – 0103 FO 0310 – 0103	0310 – 0103	0340 – 0103
London Bridge	0400 – 0100	0400 – 0100	0600 – 0100
Paddington	24hrs	24hrs	24hrs
St Pancras	24hrs	24hrs	24hrs
Victoria	0400 – 0100	0400 – 0100	0600 – 0100
Waterloo	0430 – 0105	0430 – 0145	0530 – 0105

Appendix G – Explanation of Working Timetable References

For Passenger Operators -

Abbreviations used for Days of the Week

M	Monday
T	Tuesday
W	Wednesday
TH	Thursday
F	Friday
S	Saturday

For the above:-

- (i) The addition of the letter “**O**” indicates that the train will run on that day or those days only.
- (ii) The addition of the letter “**X**” indicates that the train will not run on that day or those days indicated.

SUN Sunday

Arrival Time References

a	arrives 1 minute earlier.
b	arrives 1½ minutes earlier.
c	arrives 2 minutes earlier.
d	arrives 2½ minutes earlier.
e	arrives 3 minutes earlier.
f	arrives 3½ minutes earlier.
g	arrives 4 minutes earlier.
h	arrives 4½ minutes earlier.
j	arrives 5 minutes earlier.
k	arrives 5½ or more minutes earlier (see explanatory note in column).
n	see explanatory note in column.

Abbreviations used to identify **earlier** departure times which are advertised in the National Rail Timetable.

p	advertised 1-1½ minutes earlier departure.
q	advertised 2-2½ minutes earlier departure.
r	advertised 3-3½ minutes earlier departure.

Abbreviations used to identify **later** arrival times which are advertised in the National Rail Timetable.

v	advertised 1 minute later arrival.
w	advertised 2 minutes later arrival.
y	advertised 3 minutes later arrival
z	advertised 4 minutes later arrival.
‡	advertised time in National Rail Timetable.

C	Stops to change train crew.
D	<i>Other than in timing load</i> - Stops to set down/detach.
(D)	Driver Only Operation applies.
ECS	Also "+" <i>when placed intra-time</i> - Empty coaching stock.
+	<i>When not placed intra-time</i> - Must only convey vehicles authorised to run 100mph or more.
@	when placed intra time at Colchester DOO London side of Colchester only
EMU	Electric Multiple Unit
K/k	See explanatory note.
L	Stops to change Locomotive.
N	Stop not advertised.
NA	Train not advertised.
NPCCS	Non passenger carrying coaching stock.
OP	Stops for other operating reasons.
P	Push pull operated train.
PR	Propelling between points shown.
Q	Runs when required.
R	Stops when required.
RM	Stops for reversing movement, or driver to change ends.
RR	Stops to run round.
S	Stops for railway personnel only.
t	Stops for tablet, staff or token purposes.
U	Stops to take up/attach.
VB	Vacuum braked train.
X	Points at which; (a) Trains run from one running line to another, or (b) Trains cross on single lines.
[5]	Indicates the number of minutes allowed for temporary speed restrictions and engineering work.
(5)	Indicates the number of minutes given for pathing requirements.
<5>	Indicates the number of minutes given for performance allowance.
 	Light Locomotive.
*	(In arrival and departure times) Stops and shunts for other trains ahead or to pass only.
*	(In departure time only) Traffic and/or shunts for other trains to pass.
•	Air-conditioned. Public address system applies on day coaches.
§	Indicates headcode is changed en route.
∅	See explanatory note. (May be supplemented by reference letter n).
→	For continuation of train timings see subsequent column.
←	Train timings continued from previous column.

For Freight Operators –**FOUR CHARACTER TRAIN IDENTIFICATION SYSTEM****1) GENERAL**

The first four characters of the train ID number above each column in the timetable provide the following information :

The first figure indicates the classification of the train. The second character can indicate the destination area.

The third and fourth figures represent the individual number of the train.

The remaining fifth and sixth character(s) are used for timetable production purposes only and should be disregarded.

2) Freight Headcode Designations –

For inter-regional headcodes, the 2nd character designates destination region (local acceptions can apply by agreement with Route Operations). Please see table below –

Destination of Service	Inter-regional 2 nd Character for Freight
Eastern Region	E
Anglia Region	L
London Midland Region	M
Southern Region	O
Scotland Region	S
Western Region	V

If a service stays within a region, then another letter will be used to indicate the destination, or in some cases, the route – these can be found in the Route Timetable Planning Rules.

A map of inter-regional areas can be found in Appendix H.

TIMING INFORMATION IN WORKING TIMETABLES

The timing load description depicts the particular combination of trailing weight and traction type used for timing the train. The timing load used for any particular train is separate from and does not override the maximum load applicable for the route and traction concerned as published by Railtrack.

To avoid excessively large numbers of different timing loads a banded approach has been adopted for loads in regular use, with steps approximately every 200 tonnes. In some cases the Sectional Running Times (SRTs) may be common to two or more timing load bands pending review of the data used to determine the timings.

The descriptions used reflect the limitation of 8 characters imposed by train planning systems. the following three formats are currently used for freight timing load descriptions;

1. Diesel hauled class 6, 7 and 8 trains (other than class 60 hauled - see below) without specifying a particular traction class. The maximum trailing weight on which the timing is based can be determined by reference to Timing Reference Matrix.

45		TR70
Max speed of the train	Indicates whether the timings incorporate RT3973 speed restrictions	Timing reference number
	B = Both (i.e. a Heavy Axle Weight Container train) C = Container H = Heavy Axle weight train - = Standard SRTs	

2. Used for Class 60 hauled services

60	H	60	S	12
Max speed of the train	Indicates whether the timings incorporate RT3973 speed restrictions	Loco class	Indicates whether the train is single or double headed	Trailing weight - upper limit of a two hundred tonne band (i.e. 12 indicates a weight between 1001 and 1200 tonnes)
	B = Both (i.e. a Heavy Axle Weight Container train) C = Container H = Heavy Axle weight train - = Standard SRTs	Loco class number	S = Single headed D = Double headed	Where appropriate a leading zero is used . (e.g. 08 represents 601-800 tonnes)

3. Used for other freight services (i.e. class 4 freight trains, electrically hauled freight and other specific load and traction combinations).

75	C	86	D	12
Max speed of the train	Indicates whether the timings incorporate RT3973 speed restrictions	Loco class	Indicates whether the train is single or double headed	Trailing weight in hundreds of tonnes with final two figures omitted. (i.e. 12 indicates a weight between 1200 and 1299)
	B = Both (i.e. a Heavy Axle Weight Container train) C = Container H = Heavy Axle weight train - = Standard SRTs	Loco class number	S = Single headed D = Double headed	For less than 1000 tonnes a leading zero is used i.e. 08 indicates 800 - 899 tonnes

Timing Reference Matrix

TIMING REF	Class 37	Class 47	Class 56	Class 58	Class 59
No	tonnes	tonnes	tonnes	tonnes	tonnes
TR40	305	535	715	650	700
TR55	430	740	975	895	955
TR70	560	940	1235	1135	1210
TR85	685	1145	1495	1375	1470
TR100	815	1350	1760	1620	1725
TR115	940	1550	2020	1860	1980
TR130	1065	1755	2280	2100	2240
TR145	1195	1960	2540	2345	2495
TR160	1320	2160	2800	2585	2750
TR175	1450	2365	3065	2825	3005
TR190	1575	2570	3325	3070	3265
TR200	1660	2705	3500	3230	3435

N.B. Pending a full evaluation of the characteristics of the class 66, the class 56 values shown above should be used, subject to any maximum load for a class 66 over the route(s) in question.

Timing Loads used for Container or Heavy Axle Weight Trains

~~A separate series of timing loads will be used for trains conveying Containers or Heavy Axle weight vehicles and therefore subject to specific restrictions.~~ SRTs for trains conveying vehicles with special characteristics (Containers or Heavy Axle Weight vehicles) are calculated as per the methodology described in section 1.4, taking into account any restrictions published in the relevant RT3973 form. Where restrictions relating to a specific characteristic are shown (ie. Not applying to all trains running with special characteristics) these should be shown as adjustment time in section 5.3 of the route TPR document. Within the timing loads, the following references apply:

H – Train is Heavy Axle Weight

C – Train is container traffic

B – Train is both Containers and Heavy Axle Weight

Other Timing Loads:

LD Light Diesel Locomotive
LE Light Electric Locomotive

Line Abbreviations

AL	Avoiding Line	DHL	Down Hendon Line
CL	Carriage Line	DPL	Down Platform Line
DR	Down Reception Line	DPV	Down Platform Loop
DRL	Down Relief Line	RVL	Reversible Line
DS	Down Sidings	TL	Through Line
GL	Goods Line	UML	Up Main Line
HLG	High Level Goods Line	UPL	Up Platform Line
ML	Main Line	UR	Up Reception Line
PL	Platform Line	US	Up Sidings
RL	Relief Line	UHL	Up Hendon Line
		UPV	Up Passenger Loop

Other Abbreviations

C.C.D.	Coal Concentration Depot	N.Y.	Network Yard
C.T.	Container Terminal	O.R.	Oil Refinery
D.C.S.	Down Carriage Sidings	P.A.D.	Pre-assembly Depot
F.D.	Freight Depot	Qry	Quarry
F.L.T.	Freightliner Terminal	Recp	Reception Sidings
F.P.	Fuelling Point	R.S.	Recessing Sidings
G.F.	Ground Frame	R.T.S.	Refuse Transfer Station
H.S.	Holding Sidings	Sdgs	Sidings
Jn	Junction	S.F.	Shunting Frame
L.C.	Level Crossing	Sig	Signal
L.I.P.	Locomotive Inspection Point	S.S.	Sorting Sidings
T.C.	Terminal Complex	T.& R.S.	Traction and Rolling
		M.D.	Stock Maintenance Depot
T.M.D.	Traction Maintenance Depot	Yd.	Yard

Activities

*	Stops to await passage of other trains	OR	Train locomotive on rear
AE	Stops to attach or detach assisting locomotive driver	RM	Stops for reversing movement or for to change ends.
BL staff.	Stops to attach or detach banking locomotive	t	Stops only for token, tablet or train
C	Stops to change train crew	PR	Propelling movement
D	Stops to detach	RR	Stops to run round
E	Stops for examination	S	Stops for staff other than train men
L	Stops to change locomotives	U	Stops to attach
OP	Stops for other operational reasons direction on	X	Stops for train passing in opposite single line

Operating Characteristics

B	Vacuum Braked	Y	Service has two or more paths which run to/from alternative origins/destinations or different routes.
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Network Rail
National

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G Train (Wo)man

Z May convey traffic to Channel
Tunnel Gauge. Not to be diverted
from booked route without authority.

Q Runs when required

| Light locomotive

3 Timetable Planning Process - Short Term Planning

3.1 Introduction

- 3.1.1 This section describes the process to be followed to enable agreement between Network Rail and Timetable Participants of short term amendments to the Permanent Timetable.
- 3.1.2 The timetable planning process for short term planning is governed by Part D of the Network Code (last amended in **18th January 2021**). In the event of a conflict, the Network Code takes precedence over Track Access Agreements with individual Timetable Participants and the Engineering Access Statement / Timetable Planning Rules.
- 3.1.3 Network Rail Timetable Variations are planned by Network Rail on a week by week basis. Each week of a Working Timetable is referred to as a “Timetable Week” (TW). Each Timetable Week commences at 00:01 on a Saturday and expires at 24:00 on the following Friday. The sequence of events by which variations are finalised is designated by a series of milestone dates and steps, all of which refer to a week in the period prior to the commencement of TW. So, for example, “TW minus 12” (or “TW-12”) refers to the 12th week prior to the start of a given TW. Where in this Part D any step or event is required or stated to occur by any week designated in this way, it must occur no later than 5pm on Friday of the preceding week. So, for example, a step which is required to occur no later than “TW-12” must occur no later than:
- (a) 5pm on Friday;
 - (b) in the week commencing on the Sunday which occurs 13 weeks prior to the commencement of week TW.
- 3.1.4 Not later than D-26, Network Rail shall provide to all Timetable Participants a calendar pertaining to each TW, showing the milestone dates which will apply (pursuant to this Condition D3) to the planning of all Timetable Variations in respect of that TW.

3.2 Weekly Train Plan – Network Rail Variations with at least 12 Weeks Notice

- 3.2.1 Network Rail is entitled to make a variation to the Working Timetable when the Network Rail Variation is for the purpose of taking Restrictions of Use which are consistent with the Rules, or as amended in accordance with the procedure shown in Condition D3.4.3
- 3.2.2 Network Rail must consult with all Timetable Participants likely to be affected by the amendment.
- 3.2.3 By TW-30 Network Rail will provide its proposals for Restrictions of Use in respect of the corresponding TW to Timetable Participants.
- 3.2.4 After TW-30 but by TW-26, Network Rail shall consult with each Timetable Participant affected by the Restrictions of Use proposed and shall seek to agree all Network Rail Variations to be made.
- 3.2.5 To facilitate the planning of any Network Rail Variation, Network Rail may require that any Timetable Participant shall submit a revised Access Proposal in respect of any Train Slot.
- 3.2.6 Where Network Rail requires a revised Access Proposal:
- (a) the requirement must be notified to the affected Timetable Participant no later than TW-22;
 - (b) Network Rail shall specify the aspects of the Access Proposal which need to be revised and its reasons for this;

(c) Network Rail shall specify a reasonable period in which the revised Access Proposal must be provided, and in any event the revised Access Proposal shall be submitted no later than TW-18.

- 3.2.7 Network Rail may modify, accept or reject a revised Access Proposal and where it modifies or rejects any revised Access Proposal, it must provide written reasons for its decision.
- 3.2.8 Where a revised Access Proposal has not been submitted by a Timetable Participant as required by Network Rail, Network Rail shall be entitled to make a Network Rail Variation of any Train Slot in respect of which the revised Access Proposal was required and no appeal may be made in respect of Network Rail's decision.
- 3.2.9 Not later than TW-14, Network Rail shall notify all Timetable Participants of its decision in respect of Network Rail Variations.
- 3.2.10 Not later than TW-13, any Timetable Participant affected by Network Rail's decision shall inform Network Rail whether it accepts or disputes that decision.
- 3.2.11 At TW-12, Network Rail shall record and provide to all Timetable Participants, the Network Rail Variations to be made.
- 3.2.12 Any Timetable Participant which is dissatisfied with any final decision of Network Rail in respect of a Network Rail Variation may appeal against it in accordance with Condition D5. Following resolution of appeals, Network Rail will advise all affected Timetable Participants of any further changes to the amended timetable as soon as practicable.
- 3.2.13 Accepted Train Slots will be loaded into TRUST by Network Rail. It is Network Rail's intention that TRUST for each TW should hold correct details for all advertised passenger services (apart from consequences of outstanding appeals) 12 weeks before the start of that Timetable Week.

3.3 Network Rail Variations with less than 12 Weeks Notice

- 3.3.1 It may be necessary for Restrictions of Use to be arranged by Network Rail with less than 12 weeks notice, Network Rail shall follow the procedures set out in section 2.2. Except that Network Rail is permitted to prescribe such time periods for each step that are reasonably practicable in the circumstances. Network Rail shall notify all affected Timetable Participants of its final decision in respect of any such change as soon as reasonably practicable.
- 3.3.2 Any Timetable Participant which is dissatisfied with any final decision of Network Rail in respect of a Network Rail Variation made pursuant to this section may appeal in accordance with Network Code Condition D5.
- 3.3.3 The amended timetable will be accompanied by a written commentary to assist Timetable Participants in identifying changes from the permanent timetable and any flexing or rejection of Revised Access Proposals.
- 3.3.4 Following resolution of appeals, Network Rail will advise all affected Timetable Participants of any further changes to the amended timetable as soon as practicable.
- 3.3.5 Accepted Train Slots will be loaded into TRUST by Network Rail. It is Network Rail's intention that TRUST for each Timetable Week should hold correct details for all advertised passenger services (apart from consequences of outstanding appeals) 12 weeks before the start of that TW.

3.4 Change Procedure

Procedure for Altering Engineering Access Statement or Timetable Planning Rules other than through the Twice-Yearly Process Having Effect from a Passenger Change Date

- 3.4.1 This Procedure has been devised in accordance with Network Code Condition D 3.4.3 to provide a means of altering Engineering Access Statement and/or Timetable Planning Rules other than through

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the twice-yearly process having effect from the Passenger Change Dates. It supersedes the interim arrangements included within certain Train Operators' Track Access Agreements and within certain Regional Engineering Access Statement and Timetable Planning Rules documents.

- 3.4.2 This procedure will be used by Network Rail to add, substitute or delete engineering access opportunities contained within the Engineering Access Statement. All possessions so agreed will be regarded as being within the Engineering Access Statement. Network Rail is committed to the achievement of the Informed Traveller deadlines resulting in details of amended train services being available 12 weeks before the date of operation. Consequently, wherever possible, Network Rail will consult with Timetable Participants regarding possessions and other capacity restrictions which are disruptive to agreed train slots in sufficient time to allow details of those disruptive possessions to be included in a Confirmed Period Possessions Plan which will be published 26 weeks prior to the start of each 4-week period.
- 3.4.3 Where a need arises to amend the Engineering Access Statement/Timetable Planning Rules to cater for urgent safety requirements or other emergency situations, all parties concerned will co-operate in accelerating the normal timescales in this Procedure commensurate with the urgency of the circumstances.
- 3.4.4 Changes Initiated by Timetable Participants**
- 3.4.4.1 A Timetable Participant may propose changes to any part of Engineering Access Statement/Timetable Planning Rules affecting or likely to affect that Timetable Participants.
- 3.4.4.2 The Timetable Participant shall submit a written statement of the proposed change and a concise explanation of the reasons for that change.
- 3.4.4.3 for Timetable Planning Rules, to its Network Rail Operational Planning Project Manager (LTP) who will acknowledge receipt.
- 3.4.4.4 For Engineering Access Statement, to the Engineering Access Planning Manager who will acknowledge receipt.
- 3.4.4.5 Within 10 working days of receipt of the proposed change, Network Rail shall notify all Timetable Participants affected with details of the proposed change and Network Rail's comments including concise reasons for the change and a statement as to whether Network Rail supports the proposal.
- 3.4.5 Changes Initiated by Network Rail**
- 3.4.5.1 Network Rail may propose changes to any part of the Engineering Access Statement/Timetable Planning Rules.
- 3.4.5.2 Network Rail shall notify to all Train Operators affected details of the proposed change including a concise explanation of its reasons. Proposed changes to Engineering Access Statement shall be notified by Network Rail individually by email.

3.4.6 Response by Train Operators

- 3.4.6.1 Each Timetable Participant receiving notification of a proposed change in accordance with paragraphs 3.3.2 above will consider that proposal and respond to Network Rail within 10 working days from receipt of the notification, indicating:
- 3.4.6.2 its agreement to the proposed change or;
- 3.4.6.3 details of a counter-proposal and an explanation of its reasons or;
- 3.4.6.4 in the case of Timetable Planning Rules items such as sectional running times, a request that a joint investigation is carried out.
- 3.4.6.5 Any Train Operator whose response is not received by Network Rail within 10 working days will be deemed to have agreed to the proposed change and will forfeit any right of Appeal.

3.5 Decision by Network Rail

- 3.5.1 Network Rail shall give due consideration to responses received from Timetable Participants in accordance with paragraphs 2.4.6 above and shall decide which changes, if any, should be made to the Engineering Access Statement/ Timetable Planning Rules.
- 3.5.2 In reaching its decision, Network Rail shall have due regard to the Decision Criteria in Network Code Condition D 4.6.
- 3.5.3 Network Rail will notify its decision to each affected Timetable Participant within 5 working days of the last date for receipt of responses under paragraph 2.4.6 above.
- 3.5.4 Any Timetable Participant, if it disputes Network Rail's decision, may Appeal to a Timetabling Panel and any such Appeal will be dealt with as though it had been made in accordance with Network Code Condition D2.2.8. Any Appeal must be referred to the Access Disputes Secretary in accordance with the timescales shown in Condition D5 (i.e. within 5 working days of notification by Network Rail of its decision).

4 Service Requirements for Network Services, Measurement and Railhead Treatment Trains

- 4.1 Capacity needs to be provided on the network to facilitate Network Rail's National Delivery Service operations for the distribution of materials for engineering work on the network, Network Measurement trains and the Seasonal / Railhead treatment trains. The Train Slots shown in the Appendix I tables reflect those requirements.
- 4.1.1 Network Services and Railhead Treatment Trains are required to run within the leaf fall season to mitigate the effects of fallen leaf litter ground into the surface of the rail head by the passage of trains. Over a period of time, this ground in leaf litter forms a Teflon-like material that can lead to two material safety impacts on the operational railway:
- 4.1.1.1 Trains slide on this slippery hardened material and can slide past a signal set at danger leading to a SPAD (Signal Past at Danger) that can lead to a collision with another train. Trains also slide past the stopping boards at stations. Where there is a level crossing at the end of a platform there is a risk of a train colliding with pedestrians and road traffic.
- 4.1.1.2 The material (contamination) can insulate the contact between the surface of the rail and the metal of the wheel, which can lead to Wrong Side Track Circuit Failures where a train is in section but not detected by the signalling system. An undetected train is not protected by signals and this can lead to it colliding with another train.
- 4.1.2 To mitigate the safety risk posed by contaminated rail heads Network Rail employ 18 x Multi-Purpose Vehicles (MPVs) that are self-propelled consists and 24 x Loco hauled Rail Head Treatment Trains (RHTT) that jet wash the rail head, keeping the rail head clean and optimal for the correct adhesion values.
- 4.1.3 Many treatment trains also deploy adhesion modifiers, a material which is a mixture of sand and adhesion gel providing benefit for trains trying to gain traction rather than braking. Heavy freight trains benefit from adhesion modifiers when negotiating inclines during autumnal conditions.
- 4.1.4 The same MPVs are utilised in winter to deploy anti ice products to the conductor rail to stop it from freezing. When the conductor rail freezes the electric multiple trains in the Southeast, Wessex and Merseyrail cannot draw the electric current required for traction. This can lead to trains being stranded between stations. Not only is this detrimental to train performance, it is also a safety risk as many of these trains need to be de-trained, with passengers having to be escorted down the track to an area of safety in often cold and slippery conditions.
- 4.1.5 Network Rail's Infrastructure Monitoring fleet collects a variety of asset data, which is listed in the table below:

Datastream	Purpose
Trackbed condition	Improved renewal decision making
Structure gauge	Maintain safe running of trains
Track interval	Maintain safe running of trains
Rail profile	Measures the rail profile, removing manual inspection and enables prioritisation of rail replacement.
Track geometry	Maintain safe running of trains
Rail flaw and rail depth	Maintain safe running of trains including prevention of rail breaks
Rail surface crack	Maintain safe running of trains including prevention of rail breaks and enables improved decision making
Track inspection (PLPR) and S&C Inspection	Work force safety, efficient delivery of inspection
Forward facing video (HD)	Enables remote worksite planning, walk outs
GSM-R and legacy radio survey	Maintains safe running of trains
OLE contact	Reliability of overhead line

Datastream	Purpose
OLE non-contact	Reliability of overhead line
Conductor rail	Reliability of conductor rail
OLE imagery	Reliability of overhead line
Imagery (Standard Def)	Enables remote worksite planning, walk outs

- 4.1.6 This asset information is used to satisfy the requirements of mandated engineering standards.
- 4.2 Train Slots to deliver the train service requirements included in these tables will be developed during the timetable drafting period and as such the trains shown should be considered the preliminary Train Slots.
- 4.2.1 Inclusion within these National Timetable Planning Rules will accord Network Service and Measurement trains equal priority to the Firm Rights of Timetable Participants in respect of conflict resolution decisions across all timetable periods.
- 4.2.2 Inclusion within these National Timetable Planning Rules will accord Railhead Treatment Trains equal priority to the Firm Rights of Timetable Participants in respect of conflict resolution decisions across the timetable period(s) identified in Section 2.18.
- 4.3 In accordance with Timetable Planning Rules Section 1, Train Operators may use the timetable process to seek dated train paths which may conflict with the Railhead Treatments Trains listed in Appendix 1 outside of the published “Leaf Fall” timetables (see Timetable Planning Rules Section 1.22 for applicable dates). Train Operators are encouraged to provide details of the “conflicting” RHTT schedule when submitting an access proposal.
- 4.4 Where necessary, Network Rail will endeavour to provide a decision which may result in two or more dated variants of the same train; with one outside of the published “Leaf Fall” timetable and a second train path within the published “Leaf Fall” timetable, but not conflicting with the Railhead Treatment Train.

(All services shown in the Appendix I tables are WTT compliant as of the May 2021 timetable)

- 4.5 The Maximum Variation in departure time, arrival time or of any intermediate point required for operational reasons (eg. Train crew) of any Network Service detailed in Appendix 1 shall be no more than 30 minutes from the corresponding time (at any location) for the corresponding Train Slot in the preceding Timetable Period
- 4.6 It is intended that all Network Services Infrastructure **Modelling Monitoring** Services shall appear in the WTT. However, those that run with a frequency of less than 1-in-13 weeks (eg. 1-in-16 weeks) are included with the caveat that should they conflict with another service suitable solutions will be worked through with the relevant Operators. These solutions will then be included in the relevant DPPP traffic remarks for amendments to be made via the STP process. This process allows known conflicts to exist in the WTT with IM services running at these low frequencies, as on the planned days that the IM service run suitable STP alterations will have been made in the timetable to resolve the conflicts.
- 4.7 Where Railhead Treatment Trains are required to run outside the dates shown in section 2.18, a TOVR should be submitted through the STP process for the desired train path.

5 International Train Slots

- 5.1.1 Capacity needs to be provided on the network to facilitate the operation of international passenger and freight trains. The planning of these Train Slots needs to be coordinated between Network Rail and other European Infrastructure Managers, and special provisions have been made in the Network Code Part D to recognise the added complication involved.

5.1 Passenger

- 5.1.2 The International Freight Capacity Notice details the Train Slots required and is formally notified at D-70 through email correspondence.

6 Procedure for Amending or Withdrawing a Possessions Strategy Notice

6.1 Introduction

- 6.1.1 This Procedure has been devised in accordance with Network Code Condition D 6.7.1 to provide a means of amending or withdrawing a Possessions Strategy Notice (PSN).
- 6.1.2 This procedure will be used by Network Rail to add, amend, substitute or delete items contained within a previously-issued PSN or to withdraw a PSN in its entirety.
- 6.1.3 Possessions and other Restrictions of Use agreed through the PSN process, including any changes agreed in accordance with this Procedure will be incorporated into the development process for the Engineering Access Statement for the relevant year and may be subject to further change, including addition of further details, as part of that process. Consequently no changes to any part of a PSN will be issued after the issue of the Engineering Access Statement Preliminary Proposal (Version 1) for the corresponding year.

6.2 Proposal of Changes

- 6.2.1 Network Rail may propose changes to any part of any PSN or may propose the withdrawal of a previously-issued PSN.
- 6.2.2 Network Rail shall notify to all Timetable Participants affected details of the proposed change including an explanation of its reasons. This notification will be issued by the Engineering Access Planning Manager.

6.3 Response by Timetable Participants

- 6.3.1 Each Timetable Participant receiving notification of a proposed change in accordance with paragraph 6.2.2 above will consider that proposal and respond to Network Rail within 20 Working Days from receipt of the notification, indicating:
 - (i) its agreement to the proposed change or
 - (ii) details of a counter-proposal and an explanation of its reasons or
 - (iii) a request that the response deadline should be extended and an explanation of its reasons.
- 6.3.2 Any Timetable Participant whose response is not received by Network Rail within 20 Working Days will be deemed to have agreed to the proposed change and will forfeit any right of Appeal.

6.4 Decision by Network Rail

- 6.4.1 Network Rail shall give due consideration to responses received from Timetable Participants and shall decide which changes, if any, should be made to the relevant PSN.
- 6.4.2 In reaching its decision, Network Rail shall have due regard to the Decision Criteria in Network Code Condition D4.6.
- 6.4.3 Network Rail will notify its decision to each affected Timetable Participant within 10 Working Days of the last date for receipt of responses.
- 6.4.4 If Network Rail decides to accept a request to extend the response deadline, it will notify that decision to each affected Timetable Participant in and will notify its decision on the substance of the change within 10 Working Days of the revised response date.

- 6.4.5 Any Timetable Participant, if it disputes Network Rail's decision, may Appeal to a Timetabling Disputes Panel in accordance with Network Code Condition D5.

Appendix H – List of Definitions

Term	Definition
Bplan	Electronic repository for train planning geography values. These values include: Tiplocs, Network links, SRTs/Timing links, valid platform numbers and codes.
Conditional Timing Point	Conditional timing points only need to be used when a particular activity takes place at those locations. Allowances (e.g. acceleration, deceleration and approach control) should be included in SRTs where this represents the fastest possible SRT for the Network Link.
Cumulative Rounding	<p>Throughout the course of a journey timings for SRTs and dwells will need rounding to ensure that the cumulative technical time for a section and the cumulative SRT + dwell time for a section are balanced and do not usually diverge by more than ± 15 seconds.</p> <p>(Specific to SRTs) Where a journey is formed of multiple SRTs, rounding is adjusted to ensure that the cumulative technical times of the SRT and the cumulative values of the rounded SRTs do not usually diverge by more than ± 15 seconds.</p>
Decision Criteria	<p>Where Network Rail is required to decide any matter in this Part D its objective shall be to share capacity on the Network for the safe carriage of passengers and goods in the most efficient and economical manner in the overall interest of current and prospective users and providers of railway services (“the Objective”).</p> <p>In achieving the Objective, Network Rail shall apply any or all of the considerations in paragraphs (a)-(k) below (“the Considerations”) in accordance with Condition D4.6.3 below:</p> <ul style="list-style-type: none"> (a) maintaining, developing and improving the capability of the Network; (b) that the spread of services reflects demand; (c) maintaining and improving train service performance; (d) that journey times are as short as reasonably possible; (e) maintaining and improving an integrated system of transport for passengers and goods; (f) the commercial interests of Network Rail (apart from the terms of any maintenance contract entered into or proposed by Network Rail) or any Timetable Participant of which Network Rail is aware; (g) seeking consistency with any relevant Route Utilisation Strategy; (h) that, as far as possible, International Paths included in the New Working Timetable at D-48 are not subsequently changed; (i) mitigating the effect on the environment; (j) enabling operators of trains to utilise their assets efficiently; and (k) avoiding changes, as far as possible, to a Strategic Train Slot other than changes which are consistent with the intended purpose of the Strategic Path to which the Strategic Train Slot relates; and (l) avoiding a change to any International Freight Train Slot included in part B of an International Freight Capacity Notice shall be changed
Engineering Recovery Allowance	Additional time included in train schedules to cover the impact of planned temporary speed restrictions associated with engineering works on the network.
Junction Margin	The minimum permissible time interval between two trains that are performing conflicting moves at a timing point. This is expressed in multiples of half minutes derived from the technical value expressed in seconds.

Mandatory Timing Point	Mandatory timing points are generally major junctions and stations, TRUST points, and locations where trains start and terminate. Other locations may be defined as mandatory to assist planning and train reporting, but care should be taken to avoid timing points that are close together as this will complicate the planning process. Where timing points are closely spaced, additional care is needed to ensure that allowances for acceleration, deceleration and pathing/engineering/performance are correct.
Network Link	These link timing points to form a planning geography network which allows various planning systems to function. Where multiple running lines exist, more than one network link may exist between two timing points. The line codes to be used are shown in TPR section 2.1 alongside planning locations, and the codes to be used should match the Sectional Appendix line names as closely as possible. Network Links are formed between two tiplocs, but should never extend past a mandatory timing point, with the exception of links created for planning rail replacement bus services.
Planning Headway	The minimum planned time interval between two successive train schedules at a specific timing point on the same line in the same direction, such that the second train can meet its SRT. This is expressed in multiples of half minutes and is derived from the technical headway rounded to at least the next half minute or above by agreement.
Platform Reoccupation	The time between first train departing and second train arriving at a specific platform in the same direction; this commonly defaults to, but should never exceed the applicable headway. This value need not be calculated on the least restrictive signal aspect, but the second train in the sequence must be able to meet its SRTs.
Run-round Time	The minimum time between arrival and departure at a timing point when a locomotive or locomotives are moved from one end of a train to the other, including detachment, movement, attachment and safety checks.
Sectional Running Time (SRT) / Timing Link	Time taken for various train types (Timing Loads) to traverse a Network Link, representing the fastest route of that Network Link.
Signalling Headway	The minimum time permissible between two successive trains at a specific signal on the same line in the same direction based on the best performing trains using the route.
Stanox	Tiplocs are linked to stanoxes for TOPS reporting purposes. These are numeric location codes of 5 digits. More than one tiploc may be linked to a stanox, but not the other way around. Each stanox is assigned to a TRA (TOPS reporting area) which is specific to a TOC, FOC or Network Rail. This means that for effective TOPS reporting, one location may have multiple stanoxes and tiplocs particular to each FOC.
Station Dwell Time	The minimum time shown in timetables for trains to be at a stand in a station, from when train wheels stop on arrival to when wheels start on departure.
Technical Headway	The minimum permissible time interval between two successive trains at a specific timing point on the same line in the same direction, such that the second train can meet its SRT. This is expressed in seconds.
Technical Value	Minimum time between two events on the network based on the physical capability of the infrastructure and rolling stock concerned. This will be expressed in seconds.

Terminal Time	In respect of a freight train, the minimum time required between arrival of one service and departure of the next service, allowing for loading or unloading and including remarshaling and train preparation. Terminal times are indicated in Schedule 5 of Track Access Agreements.
Timetable Impact Assessment	A study undertaken to understand the effect of a proposed TPR value change on the operation of the Timetable.
Timetable Participant	(a) an Access Beneficiary; or (b) a Potential Access Party
Timing Point	<p>Nominated points on the network at which trains are timed. A list of these locations is provided in Section 2.1 of the TPRs. Timing points have two categories; mandatory, where all trains are timed, and conditional, where certain trains are timed as detailed in Section 2.1. The timing point is normally the Sectional Appendix mileage. Where no mileage is shown in the Sectional Appendix, the signalling plans should be checked for further information. In the absence of any definitive location, a mileage should be agreed by affected parties, documented and recorded in Section 2.1 of TPR.</p> <ol style="list-style-type: none">1. Non-stopping trains – see above2. Terminal stations – see above3. Trains stopping at platforms – appropriate stop board for the length of train4. Trains stopping in loops – exit signal
TIPLOC	Timing points are shown in the form of tiplocs in planning systems to enable downstream systems to function. tiplocs are alpha-numeric and have a root of four characters to define a location and up to three additional characters to further define locations in that area. For example, Doncaster has root DONC (which also serves as tiploc for Doncaster station), and further tiplocs are available for other locations in that area such as DONC254 (Doncaster Sig. D254) and DONCUDY (Doncaster Up Decoy).
Turnround Time	The minimum time required for rolling stock to be prepared on completing one service before it forms the next service.

7 Access Impact Matrix

7.1 Introduction

- 7.1.1 This section describes the introduction of the Access Impact process to be followed to enable agreement between Network Rail and Timetable Participants for delivering Capacity Study requests relating to the Engineering Access Statement, **new or amended possessions requested by Draft Period Possession Plan (TW30) and new or amended possessions requested after publication of the Confirmed Period Possession Plan (TW26).**
- 7.1.2 The Access Impact Matrix was created by Network Rail and Crosscountry to jointly resolve Access dispute TTP773. The Access Impact Matrix grades Capacity Studies by severity. Operators will grade their Capacity Study requests from the Engineering Access Statement **or new/amended possessions by DPPP** on their Operator Response Sheet.
- 7.1.3 Network Rail can challenge the grading and a revised or the original grading should be agreed by all parties. Network Rail and the relevant Timetable Participants will jointly agree a delivery date for the requested Capacity Study. Extensions to the delivery date of the requested Capacity Study will need to be agreed by Network Rail and the relevant Timetable Participants.
- 7.1.4 **New or amended possessions requested by Network Rail postTW26 (late notice) where a Capacity Study is then requested by a Timetable Participant; Network Rail and Timetable Participants shall agree the following:-**
- Severity
 - Delivery Date
 - Priority paths, flows etc...
 - Agree an output ie. study, trains meeting, revision of an existing train plan etc
 - Where possible Timetable Participants to provide the following –
 - Estimated and evidenced passenger numbers
 - Estimated and evidenced commercial impact
- 7.1.5 **To support delivery of the agreed Capacity Study Timetable participants to provide the following:-**
- Priority paths, flows, services
 - Q paths that can be discounted
 - Timing Load
 - Ancillary moves
 - Whether a standard hour is required only
 - Details of a specific headcode that requires a train slot
 - Non-runners

7.2 Access Impact Matrix

	<u>Severity 1</u> Access that impacts on a single service group or single operator	<u>Severity 2</u> Access that effects multiple service groups or operators and / or where capacity is shared by operators
<u>Capacity Study</u> [EAP]	<ul style="list-style-type: none"> •Isolated one off pieces of access that require minor retiming of less than 10 minutes •Regular diversions for Section 5 possessions •Regular diversions for a single piece of access •TSRs that require additional [x] with minor impact on train service (journey time extension no greater than 10 minutes) •Services required to start / terminate short where the planning solution is known 	<ul style="list-style-type: none"> •2 track timetables outside of normal Section 4 times •High Output possessions with TSRs and line blockages (pattern of services required to confirm line blockage times) •TSRs that require additional [x] for more than one operator •Diversionary routes where capacity will be shared (an understanding of hourly patterns or ability to fit the WTT quantum of trains etc) •Regular diversionary routes for multiple operators (e.g. via Northampton / Hertford Loop etc) where capacity is understood •Services required to start / terminate short where the method of working is not known
Output requirements	<ul style="list-style-type: none"> •Understanding of the impact on train service group and required capacity •Understanding the impact on standard possession opportunities •Detailed Traffic Remarks by CPPP stage. If post CPPP, included as part of proposal 	<ul style="list-style-type: none"> •Detailed structure for the amended train plan stating additional time, diversionary routes, capacity restrictions by operator and allocated capacity •Understanding the impact on standard possession opportunities •Detailed Traffic Remarks by CPPP stage. If post CPPP, included as part of proposal

	Severity 3 Access that effects one or more operators and that requires significant diversion or retiming (of greater than 15 minutes)	Severity 4 Double or Triple disruption to one or more operators Disruption that effects one or more operators on more than one route Severe disruption on a primary route of one or more operators
<u>Timetable Study</u> [EAP & Train planning]	<ul style="list-style-type: none"> •Standard hourly pattern either undeliverable or requires significant amendment (>15 mins) •Where an understanding of the impact on service patterns and connections is required (services back to booked / missing key stations etc) •Potential impact on train crew and unit resources for one or more operators (turnarounds at key stations potentially impacted etc) •Restrictive capacity and / or where booked connections are impacted at key stations (i.e. Birmingham New Street / Leeds / London Terminals etc) •Access that requires the thinning of services to provide capacity for diverted services or degraded working •Access that requires multiple operators to start / terminate at a station that has a complex method of working for turn back moves •Severe impact on ability to move Empty Coaching Stock (possessions effecting depot access or requiring significant retiming [greater than 15 minutes] or diversion) 	<ul style="list-style-type: none"> •Abnormal diversionary routes where capacity and / or the impact on train paths and connections is not easily or fully understood •SLW plans outside of Section 4 where capacity is constrained with significant journey time detriment (of greater than 15 minutes) •Where one or more operators are impacted by more than one piece of access on one or more routes •Where capacity via a diversionary route is severely restricted (single line / absolute block / congested routes / stations etc) •Where an understanding of the impact on service patterns and connections is required (services back to booked / missing key stations etc) •SX blockade of one or more operators' primary routes (WCML / ECML all line block e.g. Wigan / Watford)
Output requirements	<ul style="list-style-type: none"> •Standard hourly pattern established through detailed timings (as opposed to production of a full timetable for the specific period) •Platforming exercise to understand capacity around any restriction at multi operator stations •Single train timing exercise to understand impact on journey time detriment and / or impact of crew and resources •Train by train timing to demonstrate impact on ECS moves to ensure deliverability of train service •Detailed structure for the amended train plan stating additional time, diversionary routes, capacity restrictions by operator and allocated capacity from output of Timetable Study •Detailed Traffic Remarks for access proposed in V1 / V3 by V2 / V4. For access requested post V2 / V4 included by CPPP. If post CPPP, included as part of proposal 	<ul style="list-style-type: none"> •Full timetable study for every operator effected for the duration of the disruption (with the exception of ECS moves where not applicable) or •Standard hourly pattern to understand capacity through detailed timings (as opposed to production of a full timetable for the specific period) •End to end journeys to be assessed where applicable (e.g. services that cannot return to a booked path) with no piece of access to be treated in isolation •Decision Criteria grid populated to support capacity allocation •Detailed structure for the amended train plan stating additional time, diversionary routes, capacity restrictions by operator drawn from output of Timetable Study •Detailed Traffic Remarks for access proposed in V1 / V3 by V2 / V4. For access requested post V2 / V4 included by CPPP. If post CPPP, included as part of proposal

Appendix I – Network Services Trains

Days	TID	Departure Time	Origin	Arrival Time	Destination	Y Path	Operator
SO	6C02FV	04:22	Crewe Basford Hall SSN	07:52	Carlisle N.Y.	Y	DRS
MSX	6C02FV	04:19	Crewe Basford Hall SSN	07:58	Carlisle N.Y.	Y	DRS
MO	6C18FA	02:52	Crewe Basford Hall SSM	07:40	Carlisle N.Y.		DB Cargo
MSX	6C18FV	03:00	Crewe Basford Hall SSM	06:51	Carlisle N.Y.		DB Cargo
SX	6C72DV	08:30	Fairwater Yard	09:43	Westbury Down T.C.		FLHH
SX	6C73DV	12:17	Westbury Down T.C.	13:29	Fairwater Yard		FLHH
SX	6D06GY	12:52	York Engineers Yard	14:42	Doncaster Up Decoy	Y	DB
SX	6D44EA	11:10	Bescot Up Engineers Sidings	13:42	Toton North Yard	Y	GBRf
SX	6D46EA	07:15	Cliffe Hill Stud Farm GBRF	10:15	Stapleford & Sandiacre SCCE Sidings	Y	GBRf
SX	6D46RB	07:35	Cliffe Hill Stud Farm GBRF	10:15	Stapleford & Sandiacre SCCE Sidings	Y	GBRf
SX	6D51EB	19:55	Crewe Basford Hall SSM	22:13	Toton North Yard	Y	FLHH
SX	6D51GD	19:58	Crewe Basford Hall SSM	22:10	Toton North Yard	Y	GBRf
SX	6D67DG	19:14	Tyne S.S	22:43	Doncaster Up Decoy	Y	DB Cargo
SX	6D74GV	06:53	Doncaster Up Decoy	07:42	Scunthorpe Trent T.C.		GBRf
SX	6D75GV	08:43	Scunthorpe Trent T.C.	09:35	Doncaster Up Decoy	Y	GBRf
SX	6D95FA	14:41	Bescot Up Engineers Sidings	16:54	Toton North Yard	Y	DRS
MX	6E04GV	02:13	Whitemoor Yard L.D.C. GBRF	05:24	Doncaster Up Decoy	Y	GBRf
FSX	6E15GA	21:17	Eastleigh East Yard	03:52	Scunthorpe Trent T.C.	Y	GBRf
FO	6E15GA	21:17	Eastleigh East Yard	03:30	Scunthorpe Trent T.C.	Y	GBRf
SX	6E16GV	03:08	Toton North Yard	05:16	Doncaster Up Decoy	Y	FLHH
SX	6E22GV	21:57	Mountsorrell GBRF	01:43	Doncaster Up Decoy	Y	GBRf
SX	6E30GC	11:34	Whitemoor Yard L.D.C. GBRF	14:37	Doncaster Up Decoy	Y	GBRf
SX	6E36SD	22:15	Millerhill S.S	03:49	Doncaster Up Decoy	Y	Colas
SX	6E42GD	07:15	Cliffe Hill Stud Farm GBRF	12:38	Doncaster Up Decoy	Y	GBRf
SX	6E42RB	07:35	Cliffe Hill Stud Farm GBRF	12:38	Doncaster Up Decoy	Y	GBRf

SX	6E50GA	14:00	Carlisle N.Y	15:49	Tyne S.S	Y	DB Cargo
SX	6E88GA	09:37	Mountsorrell Sidings	15:06	Tyne S.S	Y	FLHH
SX	6F16EW	04:58	Bescot Up Engineers Sidings	07:53	Cliffe Hill Stud Farm GBRF	Y	GBRf
FO	6F16FC	04:07	Liverpool Euro Metal (MDHC)	06:49	Crewe P.A.D		FLHH
MO	6F46EA	01:54	Stapleford & Sandiacre CCE Sidings	03:53	Cliffe Hill Stud Farm GBRF	Y	GBRf
MSX	6F46EA	01:54	Stapleford & Sandiacre CCE Sidings	04:17	Cliffe Hill Stud Farm GBRF	Y	GBRf
ThO	6F69FA	01:01	Crewe Basford Hall SSM	02:59	Liverpool Euro Metal (MDHC)		FLHH
SX	6G06EB	19:39	Crewe Basford Hall SSM	21:06	Bescot Up Engineers Sidings	Y	DRS
SX	6G16EA	11:23	Cliffe Hill Stud Farm GBRF	14:01	Bescot Up Engineers Sidings		GBRf
SX	6G45EV	16:49	Toton North Yard	19:34	Bescot Up Engineers Sidings	Y	GBRf
SX	6G94FA	12:22	Crewe Basford Hall SSM	13:34	Bescot Up Engineers Sidings		DRS
SX	6H33HA	20:14	Parkeston SS GBRF	22:59	Whitemoor Yard L.D.C. GBRF		GBRf
MSX	6K02FA	02:08	Bescot Up Engineers Sidings	03:21	Crewe Basford Hall SSM		DRS
SO	6K02FA	01:29	Bescot Up Engineers Sidings	02:38	Crewe Basford Hall SSM		DRS
SX	6K05FA	12:46	Carlisle N.Y.	17:52	Crewe Basford Hall SSM	Y	DRS
SX	6K27FH	14:43	Carlisle N.Y	20:45	Crewe Basford Hall SSM		DB Cargo
SX	6K50FV	15:13	Toton North Yard	17:42	Crewe Basford Hall SSN	Y	FLHH
SU	6K88FA	20:30	Carlisle N.Y.	23:31	Crewe Basford Hall S.S.M.	Y	Colas
SU	6K88PD	20:30	Carlisle N.Y.	23:31	Crewe Basford Hall S.S.M.	Y	Colas
SX	6K97FA	19:23	Toton North Yard	22:53	Crewe Basford Hall SSM	Y	DRS
SX	6L15HA	18:04	Toton North Yard	20:21	Whitemoor Yard L.D.C. GBRF	Y	GBRf
FO	6L16HB	12:14	Beeston Sims McIntyre LTD	14:30	Whitemoor Yard L.D.C. GBRF		FLHH
SX	6L27HJ	17:14	Mountsorrell GBRF	20:53	Whitemoor Yard L.D.C. GBRF		GBRf
SX	6L32HB	06:58	Doncaster Up Decoy	09:53	Whitemoor Yard L.D.C. GBRF	Y	GBRf
SX	6L34HD	19:54	Hoo Junction Up Yard	00:14	Whitemoor Yard L.D.C. GBRF		GBRf
SX	6L37HA	09:54	Hoo Junction Up Yard	15:12	Whitemoor Yard L.D.C. GBRF		GBRf
SX	6L84HA	21:43	Doncaster Up Decoy	23:54	Whitemoor Yard L.D.C. GBRF	Y	GBRf
FSX	6M00EC	22:59	Tyne S.S	07:13	Mountsorrell Sidings		FLHH
Su	6M00EC	22:40	Tyne S.S	05:31	Mountsorrell Sidings		FLHH
SX	6M02FA	19:30	Tyne S.S	21:44	Carlisle N.Y	Y	DBS
THO	6M13ED	08:11	Whitemoor Yard L.D.C GBRF	12:09	Beeston Sims McIntyre LTD	Y	FLHH
SX	6M15EY	21:34	Whitemoor Yard L.D.C. GBRF	00:56	Toton North Yard	Y	GBRf
SX	6M23EV	13:07	Doncaster Up Decoy	17:02	Mountsorrell GBRF	Y	GBRf
SX	6M26EA	08:50	Eastleigh East Yard	14:35	Cliffe Hill Stud Farm GBRF	Y	GBRf

Network Rail
NationalTimetable Planning Rules
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SX	6M26EP	08:50	Eastleigh East Yard	17:02	Mountsorrell GBRf	Y	GBRf
MO	6M28PD	17:54	Hinksey Sidings	21:53	Bescot Up Engineers Sidings	Y	Colas
MSX	6M28PD	17:54	Hinksey Sidings	22:00	Bescot Up Engineers Sidings	Y	Colas
MSX	6M36EA	00:44	Carlisle N.Y.	07:12	Mountsorrel SDGS	Y	Colas
MO	6M36AK	03:08	Crewe Basford Hall S.S.M.	06:22	Mountsorrel SDGS		Colas
SX	6M40EV	11:42	Westbury Down TC	19:45	Cliffe Hill Stud Farm GBRF	Y	Colas
Su	6M42ED	23:00	Doncaster Up Decoy	03:53	Cliffe Hill Stud Farm GBRF	Y	GBRf
FSX	6M42EF	23:03	Doncaster Up Decoy	04:17	Cliffe Hill Stud Farm GBRF	Y	GBRf
FSX	6M50FA	07:59	Westbury Down T.C.	16:04	Bescot Up Engineers Sidings	Y	Colas
SX	6M51FA	06:25	Millerhill S.S	10:46	Carlisle N.Y	Y	DB Cargo
SX	6M60EJ	11:07	Whitemoor Yard L.D.C GBRF	14:05	Mountsorrell GBRF		GBRf
SX	6M73EV	10:50	Doncaster Up Decoy	13:10	Toton North Yard	Y	FLHH
SX	6N06GV	09:55	Doncaster Up Decoy	11:35	York Engineers Yard		DB
MSX	6O26CV	10:48	Hinksey Sidings	12:38	Eastleigh East Yard	Y	Colas
SO	6O26CV	10:50	Hinksey Sidings	12:56	Eastleigh East Yard	Y	Colas
SX	6O27CA	19:06	Cliffe Hill Stud Farm GBRF	02:19	Eastleigh East Yard	Y	GBRf
SX	6O27CC	20:39	Mountsorrel GBRF	02:19	Eastleigh East Yard	Y	GBRF
SX	6O31CA	17:30	Westbury Down T.C	19:06	Eastleigh East Yard	Y	GBRf
MSX	6O35BA	01:38	Whitemoor Yard L.D.C. GBRF	07:08	Hoo Junction Up Yard	Y	GBRf
SO	6O35BA	01:38	Whitemoor Yard L.D.C. GBRF	06:30	Hoo Junction Up Yard		GBRf
SX	6O36BA	22:02	Whitemoor Yard L.D.C. GBRF	02:18	Hoo Junction Up Yard	Y	GBRf
SX	6O36PD	21:02	Whitemoor Yard L.D.C. GBRF	01:32	Hoo Junction Up Yard	Y	GBRf
SX	6O41CA	10:14	Westbury Down T.C.	11:57	Eastleigh East Yard	Y	GBRf
SX	6S31	13:25	Doncaster	20:12	Millerhill		DRS
SX	6S49LA	10:11	Tyne S.S	15:52	Millerhill S.S	Y	GBRf
SX	6S50LA	12:16	Carlisle N.Y	16:18	Millerhill S.S	Y	DB Cargo
SX	6T93BA	09:26	Hoo Junction Up Yard	09:46	Cliffe Brett Marine		GBRf
SX	6T96BA	15:43	Cliffe Brett Marine	16:05	Hoo Junction Up Yard		GBRf
SX	6U76BA	08:59	Crewe Basford Hall SSM	11:05	Mountsorrel Sidings		DRS
SX	6U77BA	13:18	Mountsorrel Sidings	16:12	Crewe Basford Hall SSM SSN	Y	DRS
SX	6U78BA	08:57	Hoo Junction Up Yard	09:40	Grain Foster Yeoman GBRF		GBRf
FSX	6V14DV	22:33	Cliffe Hill Stud Farm GBRF	04:24	Westbury Up T.C	Y	Colas
FO	6V14DV	22:33	Cliffe Hill Stud Farm GBRF	04:12	Westbury Up T.C	Y	Colas
MSX	6V25DA	04:45	Bescot Up Engineers Sidings	07:17	Hinksey Sidings	Y	Colas

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SO	6V25DA	04:27	Bescot Up Engineers Sidings	06:53	Hinksey Sidings		Colas
SX	6V27DP	13:27	Eastleigh East Yard	15:33	Hinksey Sidings	Y	Colas
SX	6V31DP	20:13	Eastleigh East Yard	21:51	Westbury Down T.C	Y	Colas
SX	6V31DY	20:13	Eastleigh East Yard	21:51	Westbury Down T.C	Y	GBRf
SX	6V41DC	15:54	Eastleigh East Yard	17:44	Westbury Down T.C		GBRf
FSX	6V46DA	18:59	Bescot Up Engineers Sidings	02:40	Hinskey Sidings	Y	Colas
TTho	6C46DT	18:59	Bescot Up Engineers Sidings	02:46	Hinskey Sidings		Colas
SX	6X01CA	10:18	Scunthorpe Trent T.C.	19:31	Eastleigh East Yard		GBRf
MFO	6X49EA	05:43	Toton North Yard	06:24	Beeston Sidings		GBRf
TWTHO	6X49EA	06:13	Toton North Yard	06:47	Beeston Sidings		GBRf
FSX	6X50EA	07:59	Westbury Down T.C	16:04	Bescot Up Engineers Sidings	Y	Colas
MFO	6X55EA	13:49	Beeston Sidings	14:25	Toton North Yard		GBRf
TWTHO	6X55EB	14:49	Beeston Sidings	15:52	Toton North Yard		GBRf
SX	6Y36BA	11:21	Grain Foster Yeoman GBRF	14:45	Sevington Sidings	Y	GBRf
SX	6Y37BA	18:05	Sevington Sidings	21:15	Hoo Junction Up Yard		GBRf
SX	6Y42CV	14:14	Hoo Junction Up Yard	17:52	Eastleigh East Yard	Y	GBRf
SX	6Y48BV	08:59	Eastleigh East Yard	12:40	Hoo Junction Up Yard	Y	GBRf
SO	7D99EA	08:09	Bescot Up Engineers Sidings	11:12	Toton North Yard	Y	GBRf
ThSX	7E20GA	13:02	Toton North Yard	15:55	Doncaster Up Decoy		GBRf
Tho	7E20GA	13:02	Toton North Yard	15:55	Doncaster Up Decoy		GBRf
SO	7K98FV	07:44	Bescot Up Engineers SDGS	09:06	Crewe Basford Hall S.S.M.	Y	GBRf
SX	7T83BA	15:53	Grain Foster Yeoman GBRF	17:02	Hoo Junction Up Yard	Y	GBRf
MO	7Y27BA	18:41	Hoo Junction Up Yard	19:41	Hither Green P.A.D		DB Cargo
THO	7Y27BA	18:41	Hoo Junction Up Yard	19:41	Hither Green P.A.D		DB Cargo
MO	7Y29BA	20:17	Hither Green P.A.D	22:21	Hoo Junction Up Yard		DB Cargo
THO	7Y29BA	20:17	Hither Green P.A.D	22:21	Hoo Junction Up Yard		DB Cargo
SX	7Y44CV	04:21	Hoo Junction Up Yard	07:47	Eastleigh Easy Yard	Y	GBRf
SO	7G98EV	13:52	Crewe Basford Hall SSM	15:14	Bescot Up Engineers Sidings	Y	GBRf
SO	7G99ET	14:12	Toton North Yard	16:30	Bescot Up Engineers Sidings	Y	GBRf
SO	7K98FV	07:44	Bescot Up Engineers Sidings	09:06	Crewe Basford Hall SSM	Y	GBRf
SX	7M18EV	07:21	Doncaster Up Decoy	11:10	Toton North Yard	Y	GBRf
SX	7V41DC	14:48	Eastleigh East Yard	16:44	Westbury Down T.C.	Y	GBRf
SX	7X18GA	07:21	Doncaster Up Decoy	11:10	Toton North Yard	Y	GBRf
SX	7X41CA	14:48	Eastleigh East Yard	16:43	Westbury Down T.C.	Y	GBRf

Network Rail
National

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SX	7X43CB	19:56	Eastleigh East Yard	23:35	Hoo Junction Up Yard	Y	GBRf
SX	7X44BA	04:21	Hoo Junction Up Yard	07:47	Eastleigh East Yard	Y	GBRf
SO	7X96FA	07:44	Bescot Up Engineers Sidings	09:05	Crewe Basford Hall SSM	Y	GBRf
SO	7X97EA	13:52	Crewe Basford Hall SSM	15:14	Bescot Up Engineers Sidings	Y	GBRf
SO	7X99EA	08:09	Bescot Up Engineers Sidings	11:10	Toton North Yard	Y	GBRf
SX	7Y43BV	19:56	Eastleigh East Yard	23:35	Hoo Junction Up Yard	Y	GBRf
SX	7Y44CV	04:21	Hoo Junction Up Yard	07:47	Eastleigh East Yard	Y	GBRf

Network Seasonal and Railhead Treatment Services

Type	Days	TID	Start Time	Origin	Destination
Anglia					
RHTT	SX	3S01	09:22	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	SX	3S10	19:39	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	Su	3S10	20:35	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	SX	3S11	19:39	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	SX	3S20	20:48	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	Su	3S20	20:04	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	FSX	3S30	21:52	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	FO	3S30	21:52	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	Su	3S30	21:52	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	FO	3S40	19:26	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	FSX	3S40	19:26	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	Su	3S40	19:16	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	SX	3S50	19:45	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	Su	3S50	19:25	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	SX	3S60	09:00	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	SO	3S60	08:37	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	SX	3S65	23:59	Stowmarket D.G.L.	Stowmarket D.G.L.
RHTT	SX	3S70	08:31	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	SO	3S70	08:20	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	SO	3S81	07:25	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	MThFO	3S81	07:40	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
RHTT	TWO	3S81	07:40	Broxbourne Tamp Sdg	Broxbourne Tamp Sdg
LNE					
RHTT	MWO	3J11	16:21	Carlisle Kingmoor TMD (DRS)	Carlisle Kingmoor SDG (DRS)
RHTT	FO	3J11	16:21	Carlisle Kingmoor TMD (DRS)	Carlisle Kingmoor SDG (DRS)
RHTT	SU	3J11	16:21	Carlisle Kingmoor TMD (DRS)	Carlisle Kingmoor TMD (DRS)
RHTT	TThO	3J11	16:21	Carlisle Kingmoor TMD (DRS)	Carlisle Kingmoor SDG (DRS)
RHTT	SX	3J31	01:06	Peterborough L.I.P.	Foxton
RHTT	SO	3J31	01:35	Peterborough L.I.P.	Foxton
RHTT	SU	3J31	10:48	Peterborough LIP	Peterborough LIP
RHTT	SX	3J32	04:09	Foxton	Royston (Herts)Loop
RHTT	SO	3J32	04:42	Foxton	Royston (Herts)Loop
RHTT	SX	3J33	07:42	Royston (Herts)Loop	Royston (Herts)Loop
RHTT	SO	3J33	09:04	Royston (Herts)Loop	Royston (Herts)Loop
RHTT	SX	3J34	11:02	Royston (Herts)Loop	Royston
RHTT	SO	3J34	12:31	Royston (Herts)Loop	Royston (Herts)Loop
RHTT	SX	3J35	16:42	Royston	Peterborough L.I.P.

Type	Days	TID	Start Time	Origin	Destination
RHTT	SO	3J35	18:32	Royston (Herts)Loop	Peterborough L.I.P.
RHTT	SO	3J41	08:08	Peterborough L.I.P.	Doncaster Up Decoy
RHTT	TThO	3J41	08:03	Peterborough L.I.P.	Barnetby
RHTT	MWFO	3J41	06:10	Peterborough L.I.P.	Doncaster Up Decoy
RHTT	SU	3J41	13:58	Peterborough L.I.P.	Peterborough L.I.P.
RHTT	MWFO	3J42	09:54	Doncaster Up Decoy	Peterborough Peterborough L.I.P.
RHTT	SO	3J42	11:40	Doncaster Up Decoy	
RHTT	TThO	3J42	10:46	Barnetby	Peterborough L.I.P.
RHTT	SU	3J42	17:57	Peterborough L.I.P.	Peterborough L.I.P.
RHTT	MWFO	3J43	16:04	Peterborough	Peterborough L.I.P.
RHTT	TThO	3J43	16:00	Peterborough L.I.P.	Peterborough L.I.P.
RHTT	SX	3J44	19:06	Peterborough L.I.P.	Peterborough L.I.P.
RHTT	SO	3J77	04:10	Carlisle Kingmoor SDG (DRS)	Nunthorpe
RHTT	WFO	3J77	02:46	Carlisle Kingmoor SDG (DRS)	Nunthorpe
RHTT	TThO	3J77	02:46	Carlisle Kingmoor SDG (DRS)	Nunthorpe
RHTT	SU	3J77	10:18	Carlisle Kingmoor SDG (DRS)	Carlisle Kingmoor SDG (DRS)
RHTT	MO	3J77	05:02	Carlisle Kingmoor SDG (DRS)	Nunthorpe
RHTT	TThO	3J78	08:35	Nunthorpe	Carlisle Kingmoor SDG (DRS)
RHTT	MO	3J78	11:34	Nunthorpe	Carlisle Kingmoor SDG (DRS)
RHTT	WFO	3J78	08:35	Nunthorpe	Carlisle Kingmoor SDG (DRS)
RHTT	SO	3J78	08:36	Nunthorpe	Carlisle Kingmoor SDG (DRS)
RHTT	SU	3S10	23:52	Doncaster West Yard	York Thrall Europa
RHTT	TThO	3S11	04:07	York Thrall Europa	Sheffield
RHTT	MWFO	3S11	03:30	York Thrall Europa	Sheffield
RHTT	SO	3S11	04:03	York Thrall Europa	Sheffield
RHTT	MWFO	3S12	07:27	Sheffield	Wrenthorpe Recp.
RHTT	TThO	3S12	06:48	Sheffield	Sheffield
RHTT	SO	3S12	06:47	Sheffield	Sheffield
RHTT	MWFO	3S13	08:52	Wrenthorpe Recp	Grimsby Town
RHTT	SO	3S13	09:08	Sheffield	Sheffield
RHTT	TThO	3S13	09:24	Sheffield	Woodburn Jn
RHTT	TThO	3S14	11:33	Woodburn Jn	Hull

Type	Days	TID	Start Time	Origin	Destination
RHTT	MWFO	3S14	11:16	Grimsby Town	Bridlington
RHTT	MWFO	3S14	11:16	Grimsby Town	Hull
RHTT	SO	3S14	11:48	Sheffield	Hull
RHTT	MWFO	3S15	20:13	Bridlington	York Thrall Europa
RHTT	SO	3S15	14:34	Hull	York Thrall Europa
RHTT	TThO	3S15	15:19	Hull	York Thrall Europa
RHTT	MWFO	3S15	18:35	Hull	York Thrall Europa
RHTT	SO	3S16	19:41	York Thrall Europa	Doncaster West Yard
RHTT	SU	3S21	17:19	York Thrall Europa	Selby
RHTT	SX	3S21	16:46	York Thrall Europa	Selby
RHTT	SX	3S22	20:15	Selby	Hall Royd Jct
RHTT	SU	3S22	20:14	Selby	Hall Royd Jct
RHTT	SX	3S23	21:57	Hall Royd Jct	Leeds
RHTT	Su	3S23	22:02	Hall Royd Jct	Leeds
RHTT	SO	3S24	01:59	Leeds	Leeds
RHTT	SX	3S24	01:59	Leeds	Leeds
RHTT	SX	3S25	04:44	Leeds	Leeds
RHTT	SO	3S25	04:44	Leeds	Leeds
RHTT	SX	3S26	06:28	Leeds	York Thrall Europa
RHTT	SO	3S26	06:22	Leeds	York Thrall Europa
RHTT	SO	3S26	06:22	Leeds	York Thrall Europa
RHTT	SX	3S26	06:28	Leeds	York Thrall Europa
East Midlands					
RHTT	MO	3J87	02:45	Toton TMD	Toton TMD
RHTT	SX	3J88	23:07	Toton TMD	Stapleford & Sandiacre
RHTT	SX	3J88	21:25	Toton TMD	Stapleford & Sandiacre
RHTT	TThO	3J89	05:00	Stapleford & Sandiacre	Toton TMD
RHTT	SO	3J89	05:00	Stapleford & Sandiacre	Toton TMD
RHTT	WFO	3J89	05:00	Stapleford & Sandiacre	Toton TMD
RHTT	FSX	3J92	23:42	Toton TMD	West Hampstead North JN
RHTT	FO	3J92	23:17	Toton TMD	West Hampstead Thameslink
RHTT	Su	3J92	23:32	Toton TMD	West Hampstead North JN
RHTT	FSX	3J92	23:42	TOTON T.M.D.	West Hampstead North Jn
RHTT	SO	3J93	12:01	West Hampstead Thameslink	Toton TM
RHTT	SX	3J93	12:01	West Hampstead Thameslink	Toton TMD
North West & Central					
RHTT	SX	2S01	22:52	London Euston	London Euston
RHTT	MO	2S01	00:01	London Euston	London Euston
RHTT	SU	3J01	12:35	Bescot T.M.D	London Euston
RHTT	SO	3J01	10:50	Bescot T.M.D	Bescot T.M.D
RHTT	SX	3J01	10:50	Bescot T.M.D	London Euston
RHTT	MWO	3J01	10:50	Bescot T.M.D	London Euston
RHTT	FO	3J01	10:50	Bescot T.M.D	London Euston
RHTT	SO	3J01	11:00	Kings Norton Signal	Kings Norton Plant Dept

Type	Days	TID	Start Time	Origin	Destination
				SY522	
RHTT	TThO	3J02	01:09	London Euston	Bescot T.M.D
RHTT	MWFO	3J02	01:09	London Euston	Bescot T.M.D
RHTT	SO	3J02	00:59	London Euston	Bescot T.M.D
RHTT	SO	3J04	01:55	Reservoir Sidings	Amersham
RHTT	Su	3J04	20:07	Reservoir Sidings	Aylesbury (SDGS 1-7)
RHTT	FSX	3J04	20:12	Reservoir Sidings	Aylesbury (SDGS 1-7)
RHTT	Su	3J04	08:15	Reservoir Sidings	Reservoir Sidings
RHTT	SO	3J04	09:50	London Marylebone	Reservoir Sidings
RHTT	SO	3J04	09:32	London Marylebone	Aylesbury (SDGS 1-7)
RHTT	SX	3J04	09:47	Aylesbury (SDGS 1-7)	Reservoir Sidings
RHTT	SO	3J04	11:42	Aylesbury (SDGS 1-7)	Reservoir Sidings
RHTT	SO	3J05	04:10	Amersham	London Marylebone
RHTT	SO	3S02	09:10	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SU	3S02	09:40	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SX	3S02	08:49	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SX	3S03	04:19	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SO	3S03	04:25	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SX	3S06	04:20	Wigan L.I.P	Wigan L.I.P
RHTT	SO	3S06	04:20	Wigan L.I.P	Wigan L.I.P
RHTT	Su	3S06	09:10	Wigan L.I.P	Wigan L.I.P
RHTT	Su	3S06	09:10	Wigan L.I.P	Chester
RHTT	SX	3S07	03:25	Wigan L.I.P	Wigan L.I.P
RHTT	SO	3S07	02:39	Wigan L.I.P	Wigan L.I.P
RHTT	SU	3S07	10:35	Wigan L.I.P	Wigan L.I.P
RHTT	SU	3S07	20:05	Southport	Wigan L.I.P
RHTT	SU	3S07	10:35	Wigan L.I.P	Southport
RHTT	FO	3S08	23:25	Wigan L.I.P	Wigan L.I.P
RHTT	FSX	3S08	21:09	Wigan L.I.P	Wigan L.I.P
RHTT	SX	3S08	04:33	Wigan L.I.P	Wigan L.I.P
RHTT	SU	3S08	11:12	Wigan L.I.P	Wigan L.I.P
RHTT	SO	3S09	05:01	Edge Hill Gullet SDGS	Chester
RHTT	MSX	3S09	05:01	Edge Hill Down Wapping	Chester
RHTT	MSX	3S09	10:43	Chester	Wigan L.I.P
RHTT	SO	3S09	10:43	Chester	Wigan L.I.P
RHTT	FO	3S09	17:29	Wigan L.I.P	Edge Hill Gullet Sdgs
RHTT	TThO	3S09	17:29	Wigan L.I.P	Edge Hill Gullet Sdgs
RHTT	MWO	3S09	17:29	Wigan L.I.P	Edge Hill Gullet Sdgs
RHTT	SU	3S09	13:27	Wigan L.I.P	Wigan L.I.P
RHTT	SO	3S20	08:30	Wigan L.I.P	Crewe C.S. (L&NWR SITE)
RHTT	SO	3S21	10:30	Wigan L.I.P	Crewe C.S. (L&NWR SITE)
RHTT	SO SU	3S22	12:40	Crewe C.S. (L&NWR SITE)	Wigan L.I.P

Type	Days	TID	Start Time	Origin	Destination
RHTT	SU	3S50	16:36	Wigan L.I.P	Crewe
RHTT	FSX	3S50	16:40	Wigan L.I.P	Crewe
RHTT	TThO	3S50	04:50	Crewe	Wigan L.I.P
RHTT	MWFO	3S50	04:50	Crewe	Wigan L.I.P
RHTT	SO	3S50	04:59	Crewe	Wigan L.I.P
RHTT	FO	3S50	16:40	Wigan L.I.P	Crewe
RHTT	SX	3S52	15:01	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SU	3S52	21:10	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SX	3S53	18:47	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SU	3S53	20:29	Kings Norton OT Plant Dept	Kings Norton OT Plant Dept
RHTT	SX	3S56	16:56	Wigan L.I.P	Wigan L.I.P
RHTT	SU	3S56	18:18	Chester	Wigan L.I.P
RHTT	SO	3S56	15:12	Wigan L.I.P	Wigan L.I.P
RHTT	SO	3S57	14:51	Wigan L.I.P	Wigan L.I.P
RHTT	SX	3S57	15:13	Wigan L.I.P	Wigan L.I.P
De-Icer	SO	3S90	11:12	Wigan L.I.P	Southport
De-Icer	SX	3S90	15:13	Wigan L.I.P	Wigan L.I.P
De-Icer	SO	3S90	14:51	Wigan L.I.P	Wigan L.I.P
De-Icer	SU	3S90	14:28	Wigan L.I.P	Wigan L.I.P
De-Icer	SO	3S91	06:37	Ormskirk	New Brighton
De-Icer	SX	3S91	06:37	Ormskirk	New Brighton
De-Icer	SU	3S91	09:30	Wigan L.I.P	West Kirby
De-Icer	SU	3S91	13:04	Wigan L.I.P	New Brighton
De-Icer	SX	3S91	14:05	Southport	New Brighton
De-Icer	SO	3S91	14:05	Southport	New Brighton
De-Icer	SU	3S92	13:08	West Kirby	Southport
De-Icer	SX	3S92	10:30	New Brighton	Chester
De-Icer	SO	3S92	10:30	New Brighton	Chester
De-Icer	SU	3S92	17:33	New Brighton	Kirkby
De-Icer	SX	3S92	18:02	New Brighton	Kirkby
De-Icer	SO	3S92	18:02	New Brighton	Kirkby
De-Icer	SX	3S93	15:22	Chester	Wigan L.I.P
De-Icer	SU	3S93	16:33	Southport	James Street
De-Icer	SO	3S93	15:22	Chester	Wigan L.I.P
De-Icer	SO	3S93	21:23	Kirkby	Wigan L.I.P
De-Icer	SX	3S93	21:23	Kirkby	Wigan L.I.P
De-Icer	SU	3S93	21:23	Kirkby	Wigan L.I.P
De-Icer	SU	3S94	18:27	James Street	Wigan L.I.P
Scotland					
RHTT	MO	3S90	02:07	Mossend Down Yard	Girvan
RHTT	MSX	3S90	02:07	Mossend Down Yard	Girvan
RHTT	SO	3S90	02:07	Mossend Down Yard	Girvan
RHTT	SX	3S90	11:09	Girvan	Mossend Down Yard
RHTT	SO	3S90	10:16	Girvan	Mossend Down Yard
RHTT	SU	3S90	07:00	Mossend Down Yard	Gourock

Type	Days	TID	Start Time	Origin	Destination
RHTT	SU	3S90	15:31	Gourock	Mossend Down Yard
RHTT	SX	3S91	02:17	Mossend Down Yard	Westerton
RHTT	SO	3S91	01:33	Mossend Down Yard	Westerton
RHTT	SO	3S91	03:33	Westerton	Springburn
RHTT	SX	3S91	04:32	Westerton	Springburn
RHTT	SU	3S91	04:59	Mossend Down Yard	Neilston
RHTT	SX	3S91	11:32	Springburn	Mossend Down Yard
RHTT	SO	3S91	20:28	Springburn	Mossend Down Yard
RHTT	SU	3S91	12:26	Neilston	Mossend Down Yard
RHTT	FO	3S93	22:03	Slateford Depot	Stirling
RHTT	MWThO	3S93	22:03	Slateford Depot	Stirling
RHTT	SU	3S93	18:35	Slateford Depot	Stirling
RHTT	SU	3S94	19:50	Slateford Depot	Slateford Depot
RHTT	FO	3S94	19:50	Slateford Depot	Slateford Depot
RHTT	FSX	3S94	19:50	Slateford Depot	Slateford Depot
RHTT	MFO	3S94	19:31	Carlisle Kingmoor SDG(DRS)	Carlisle Kingmoor SDG(DRS)
RHTT	WO	3S95	18:56	Inverness T.C	Inverness T.C
RHTT	ThO	3S95	18:56	Inverness T.C	Inverness T.C
RHTT	SU	3S95	19:06	Inverness T.C	Inverness T.C
RHTT	FO	3S95	18:56	Inverness T.C	Inverness T.C
RHTT	MTO	3S95	18:56	Inverness T.C	Inverness T.C
RHTT	MTThO	3S96	10:06	Mossend Down Yard	Mossend Down Yard
South East (Kent)					
RHTT	SX	3S71	20:50	Tonbridge Engineers Sidings	Tonbridge Tonbridge Engineers Sidings
RHTT	SO	3S71	20:32	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SU	3S71	20:16	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SX	3S72	20:31	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SO	3S72	19:33	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SU	3S72	20:22	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SX	3S73	21:13	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SO	3S73	21:09	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SU	3S73	19:39	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SX	3S75	19:33	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SO	3S75	20:21	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SU	3S75	20:08	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SX	3S76	09:10	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SO	3S76	09:25	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SU	3S76	07:12	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings

Type	Days	TID	Start Time	Origin	Destination
RHTT	SX	3S78	08:29	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SO	3S78	08:32	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SU	3S78	08:42	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
RHTT	SX	3W74	05:36	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SO	3W74	06:05	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SU	3W74	06:11	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SX	3W75	15:08	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SO	3W75	15:22	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SU	3W75	14:45	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SX	3W90	02:58	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SO	3W90	04:25	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
RHTT	SU	3W90	07:13	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
De-Icer	SX	3Y74	09:40	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
De-Icer	SO	3Y74	09:37	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
De-Icer	SU	3Y74	09:12	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
De-Icer	SX	3Y75	22:32	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
De-Icer	SO	3Y75	23:32	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
De-Icer	SU	3Y75	23:26	Tonbridge West Yard GBRF	Tonbridge West Yard GBRF
De-Icer	SX	3Y90	11:59	Tonbridge West Yard GBRF	Purley Down Siding
De-Icer	SU	3Y90	16:07	Tonbridge West Yard GBRF	London Bridge
De-Icer	FO	3Y90	22:19	Purley Down Siding	Tonbridge West Yard GBRF
De-Icer	FSX	3Y90	22:19	Purley Down Siding	Tonbridge West Yard GBRF
De-Icer	SO	3Y90	14:35	Tonbridge West Yard GBRF	Purley Down Siding
De-Icer	SU	3Y90	23:13	London Bridge	Tonbridge West Yard GBRF
De-Icer	SO	3Y90	20:35	Purley Down Siding	Tonbridge West Yard GBRF
De-Icer	SX	8Y71	20:50	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SO	8Y71	20:20	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SU	8Y71	19:57	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SX	8Y72	20:20	Tonbridge Engineers	Tonbridge Engineers

Type	Days	TID	Start Time	Origin	Destination
				Sidings	Sidings
De-Icer	SO	8Y72	22:13	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SU	8Y72	20:22	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SX	8Y73	10:20	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SO	8Y73	05:40	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SU	8Y73	08:10	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SX	8Y74	10:10	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SO	8Y74	09:32	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SU	8Y74	09:10	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SX	8Y75	22:35	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SO	8Y75	23:22	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SU	8Y75	23:22	Tonbridge Engineers Sidings	Tonbridge Engineers Sidings
De-Icer	SU	8Y90	23:21	London Bridge	Horsham Up T.C.
South East (Sussex)					
RHTT	SX	3S90	16:59	Horsham Up T.C.	Horsham Up T.C.
RHTT	SO	3S90	17:55	Horsham Up T.C.	Horsham Up T.C.
RHTT	SU	3S90	18:15	Horsham Up T.C.	Horsham Up T.C.
RHTT	SX	3S91	05:26	Horsham Up T.C.	Horsham Up T.C.
RHTT	SO	3S91	05:00	Horsham Up T.C.	Horsham Up T.C.
RHTT	SU	3S91	05:25	Horsham Up T.C.	Horsham Up T.C.
RHTT	SO	3S91	17:32	Horsham Up T.C.	Horsham Up T.C.
RHTT	SU	3S91	18:54	Horsham Up T.C.	Horsham Up T.C.
RHTT	SX	3S91	17:51	Horsham Up T.C.	Horsham Up T.C.
RHTT	SX	3S92	06:51	Horsham Up T.C.	Horsham Up T.C.
RHTT	SU	3S92	07:25	Horsham Up T.C.	Horsham Up T.C.
RHTT	SX	3S92	16:48	Horsham Up T.C.	Horsham Up T.C.
RHTT	SO	3S92	17:24	Horsham Up T.C.	Horsham Up T.C.
RHTT	SU	3S92	18:06	Horsham Up T.C.	Horsham Up T.C.
RHTT	SO	3S92	06:52	Horsham Up T.C.	Horsham Up T.C.
RHTT	SX	3S93	05:53	Horsham Up T.C.	Horsham Up T.C.
RHTT	SO	3S93	05:45	Horsham Up T.C.	Horsham Up T.C.
RHTT	SU	3S93	06:20	Horsham Up T.C.	Horsham Up T.C.
RHTT	SX	3S93	16:33	Horsham Up T.C.	Horsham Up T.C.
RHTT	SO	3S93	16:07	Horsham Up T.C.	Horsham Up T.C.
RHTT	SU	3S93	18:30	Horsham Up T.C.	Horsham Up T.C.
De-Icer	SX	8Y90	15:49	Horsham Up T.C.	Purley Down Sdgs
De-Icer	SU	8Y90	17:09	Horsham Up T.C.	London Bridge
De-Icer	SX	8Y90	22:48	Purley Down Sdgs	Horsham Up T.C.
De-Icer	SO	8Y90	15:48	Horsham Up T.C.	Purley Down Sdgs
De-Icer	SU	8Y90	23:21	London Bridge	Horsham T.C.
De-Icer	SX	8Y90	05:20	Horsham Up T.C.	Horsham Up T.C.
De-Icer	SO	8Y90	05:06	Horsham Up T.C.	Horsham Up T.C.

Type	Days	TID	Start Time	Origin	Destination
De-Icer	SU	8Y90	06:35	Horsham Up T.C.	Horsham Up T.C.
De-Icer	SO	8Y90	20:35	Purley Down Sdgs	Horsham Up T.C.
De-Icer	SX	8Y91	17:00	Horsham Up T.C.	Horsham Up T.C.
De-Icer	SO	8Y91	17:06	Horsham Up T.C.	Horsham Up T.C.
De-Icer	SU	8Y91	16:10	Horsham Up T.C.	Horsham Up T.C.
De-Icer	SX	8Y92	18:47	Horsham Up T.C.	Streatham
De-Icer	SU	8Y92	16:40	Horsham Up T.C.	Streatham
De-Icer	MSX	8Y92	02:03	Streatham	Horsham Up T.C.
De-Icer	SO	8Y92	17:48	Horsham Up T.C.	Streatham
De-Icer	MO	8Y92	00:09	Streatham	Horsham Up T.C.
De-Icer	SU	8Y92	01:25	Streatham	Horsham Up T.C.
De-Icer	SX	8Y93	19:00	Horsham Up T.C.	Preston Park
De-Icer	SO	8Y93	13:58	Horsham Up T.C.	Horsham Up T.C.
De-Icer	SU	8Y93	13:45	Horsham Up T.C.	Brighton
De-Icer	MX	8Y93	00:19	Preston Park	Horsham Up T.C.
De-Icer	SU	8Y93	19:03	Brighton	Horsham Up T.C.
De-Icer	SX	3Y09	05:48	Horsham UP T.C.	Wimbledon E.M.U.D.
Wessex					
RHTT	SU	3S80	16:22	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SO	3S80	06:17	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S80	06:16	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S80	15:15	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SU	3S81	16:24	Totton Yard	Totton Yard
RHTT	SO	3S81	05:58	Totton Yard	Totton Yard
RHTT	SX	3S81	05:53	Totton Yard	Totton Yard
RHTT	SX	3S81	16:13	Totton Yard	Totton Yard
RHTT	SU	3S82	14:25	Totton Yard	Totton Yard
RHTT	SO	3S82	07:34	Totton Yard	Totton Yard
RHTT	SX	3S82	06:11	Totton Yard	Totton Yard
RHTT	SX	3S82	19:37	Totton Yard	Totton Yard
RHTT	SU	3S83	15:51	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SO	3S83	03:59	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S83	03:47	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S83	16:17	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SU	3S84	07:40	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SO	3S84	15:29	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S84	05:15	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S84	16:29	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SU	3S85	17:03	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SO	3S85	05:32	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S85	05:22	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S85	16:58	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S86	05:22	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S86	16:29	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SX	3S88	04:50	Effingham Jn C.H.S.	Effingham Jn C.H.S.
RHTT	SU	3W81	16:24	Totton Yard	Totton Yard
RHTT	SO	3W81	05:58	Totton Yard	Totton Yard
RHTT	SX	3W81	05:53	Totton Yard	Totton Yard
RHTT	SX	3W81	16:10	Totton Yard	Totton Yard
RHTT	SU	3W82	14:25	Totton Yard	Totton Yard

Type	Days	TID	Start Time	Origin	Destination
RHTT	SO	3W82	07:34	Totton Yard	Totton Yard
RHTT	SX	3W82	16:11	Totton Yard	Totton Yard
RHTT	SX	3W82	19:37	Totton Yard	Totton Yard
RHTT	SX	3Y11	06:37	Effingham Junction Neck	Wimbledon E.M.U.D.
De-Icer	SX	8Y82	21:27	Effingham Jn C.H.S	Effingham Jn C.H.S
De-Icer	SU	8Y82	20:24	Effingham Jn C.H.S	Effingham Jn C.H.S
De-Icer	SO	8Y82	21:27	Effingham Jn C.H.S	Effingham Jn C.H.S
De-Icer	SU	8Y83	20:08	Effingham Jn C.H.S	Effingham Jn C.H.S
De-Icer	SO	8Y83	19:33	Effingham Jn C.H.S	Effingham Jn C.H.S
De-Icer	SX	8Y83	18:25	Effingham Jn C.H.S	Effingham Jn C.H.S
De-Icer	SX	8Y84	19:38	Totton Yard	Totton Yard
De-Icer	SO	8Y84	20:16	Totton Yard	Totton Yard
De-Icer	SU	8Y84	20:27	Totton Yard	Totton Yard
De-Icer	SX	8Y85	21:05	Totton Yard	Totton Yard
De-Icer	SO	8Y85	20:11	Totton Yard	Totton Yard
De-Icer	SU	8Y85	20:18	Totton Yard	Totton Yard
Western & Wales					
RHTT	SX	3J11	20:32	St Blazey LIP	Par
RHTT	Su	3J11	21:40	St Blazey LIP	Par
RHTT	TO	3J12	01:21	Par	Westbury
RHTT	TSX	3J12	01:21	Par	Westbury
RHTT	SO	3J12	01:21	Par	Westbury
RHTT	MSX	3J13	08:50	Westbury	St Blazey LIP
RHTT	MO	3J13	08:50	Westbury	St Blazey LIP
RHTT	SO	3J13	09:09	Westbury	St Blazey LIP
RHTT	Su	3J14	08:32	St Blazey LIP	Par
RHTT	Su	3J15	13:24	Par	St Blazey LIP
RHTT	SX	3J41	14:53	Didcot Fuelling Point	Didcot Fuelling Point
RHTT	SU	3J41	18:30	Didcot Fuelling Point	Didcot Fuelling Point
RHTT	SX	3J42	22:30	Didcot Fuelling Point	Didcot Fuelling Point
RHTT	SU	3J42	22:58	Didcot Fuelling Point	Didcot Fuelling Point
RHTT	MO	3J43	02:53	Didcot Fuelling Point	Didcot Fuelling Point
RHTT	SO	3J43	03:58	Didcot Fuelling Point	Didcot Parkway
RHTT	MSX	3J43	03:11	Didcot Fuelling Point	Didcot Parkway
RHTT	MSX	3J44	05:25	Didcot Parkway	Didcot Fuelling Point
RHTT	SO	3J44	05:28	Didcot Parkway	Didcot Fuelling Point
RHTT	SX	3S31	18:15	Gloucester Horton Rd	Gloucester Horton Rd
RHTT	SU	3S31	13:11	Gloucester Horton Rd	Worcester Shrub Hill
RHTT	FO	3S32	22:37	Gloucester Horton Rd	Cheltenham Lansdown Loop
RHTT	FSX	3S32	22:37	Gloucester Horton Rd	Cheltenham Lansdown Loop
RHTT	MO	3S32	00:31	Worcester Shrub Hill	Didcot Parkway
RHTT	SO	3S33	10:49	Cheltenham Lansdown Loop	Gloucester Horton Rd
RHTT	MSX	3S33	11:08	Cheltenham Lansdown Loop	Gloucester Horton Rd
RHTT	MO	3S33	05:23	Didcot Parkway	Gloucester Horton Rd
RHTT	FO	3S59	19:42	Bristol Kingsland Road	Bristol Kingsland Road
RHTT	MWTho	3S59	19:42	Bristol Kingsland Road	Bristol Kingsland Road

Type	Days	TID	Start Time	Origin	Destination
RHTT	SU	3S59	14:41	Bristol Kingsland Road	Bristol Kingsland Road
RHTT	TO	3S59	19:42	Bristol Kingsland Road	Bristol Kingsland Road
RHTT	TO	3S61	18:54	Margam T.C.	Margam T.C.
RHTT	FO	3S61	18:54	Margam T.C.	Margam T.C.
RHTT	MWO	3S61	18:54	Margam T.C.	Margam T.C.
RHTT	ThO	3S61	18:54	Margam T.C.	Margam T.C.
RHTT	SU	3S61	16:50	Margam T.C.	Margam T.C.
RHTT	SO	3S62	01:43	Margam T.C.	Margam T.C.
RHTT	WO	3S62	01:43	Margam T.C.	Margam T.C.
RHTT	TThO	3S62	01:43	Margam T.C.	Margam T.C.
RHTT	FO	3S62	01:43	Margam T.C.	Margam T.C.
RHTT	FO	3S71	21:20	Shrewsbury Coleman SS	Shrewsbury Coleman SS
RHTT	MO	3S71	21:20	Shrewsbury Coleman SS	Shrewsbury Coleman SS
RHTT	TWThO	3S71	21:20	Shrewsbury Coleman SS	Shrewsbury Coleman SS
RHTT	SU	3S71	19:43	Shrewsbury Coleman SS	Shrewsbury Coleman SS

Infrastructure Measurement services running at a frequency of more than 1 in 13 weeks.

Name	Frequency	Start Date	Route	TID	Day	Dep.	From	To	Arr.	Model Train	TOC
Any Train Running Enquiries please E-MAIL DCS, Stating the TIMETABLE or STP Week / Full 6 figure Headcode /Departure TIME / Origin /Destination in the subject heading. Email address: DCSIMPlanningTeam@networkrail.co.uk											
PLP143A	8 - weekly	24/01/2022	Heaton - Newcastle - Babworth - Kings Cross - Cambridge	1Q06GB	MO	08:39	HEATON T&R.S.M.D.	CAMBRIDGE SIDINGS NORTH	16:56	HSMT	RG
PLP183A	8 - weekly	03/01/2022	Heaton Depot - Newcastle - Claypole - Connington - Kings Cross - Cambridge	1Q07GB	MO	08:39	HEATON T&R.S.M.D.	CAMBRIDGE SIDINGS NORTH	16:56	HSMT	RG
PLP143B	4 - weekly	03/01/2022	Cambridge - Kings Cross - Doncaster - Leeds – Derby – Derby RTC	1Q08GA	MO	21:31	CAMBRIDGE SIDINGS NORTH	LEEDS SIG L190	02:04	HSMT	RG
	4 - weekly	04/01/2022		1Q09GA	TO	02:29	LEEDS SIG L190	DERBY R.T.C.(NETWORK RAIL)	04:12	HSMT	RG
PLP133	4 - weekly	20/12/2021	Heaton - Newcastle - Carlisle - S&C – Leeds – Derby RTC	1Q13GB	MO	11:14	HEATON T&R.S.M.D.	YORK	17:33	HST7-125	RG
	4 - weekly	20/12/2021		1Q14GB	MO	19:29	YORK	MANCHESTER PICCADILLY	21:18	HST7-125	RG
	4 - weekly	20/12/2021		1Q15GB	MO	21:27	MANCHESTER PICCADILLY	DERBY R.T.C.(NETWORK RAIL)	01:23	HST7-125	RG
PLP134	4 - weekly	21/12/2021	Derby - Hereford & Swansea	1Q15DD	TO	06:48	DERBY R.T.C.(NETWORK RAIL)	SWANSEA	19:58	HSMT	RG
PLP135	4 - weekly	22/12/2021	Swansea - West Wales & Derby RTC	1Q16EA	WO	03:33	SWANSEA	DERBY R.T.C.(NETWORK RAIL)	20:24	HST8-125	RG
PLP125	4 - weekly	15/12/2021	Derby RTC - Bord - Banbury - Chilterns - Paddington - Banbury - Oxford - Paddington - Reading Triangle	1Q16FA	WO	19:10	DERBY R.T.C.(NETWORK RAIL)	LONDON MARYLEBONE	23:14	HSMT	RG
		16/12/2021		1Q16GA	ThO	00:23	LONDON MARYLEBONE	BANBURY	02:45	HSMT	RG

Name	Frequency	Start Date	Route	TID	Day	Dep.	From	To	Arr.	Model Train	TOC
Any Train Running Enquiries please E-MAIL DCS, Stating the TIMETABLE or STP Week / Full 6 figure Headcode /Departure TIME / Origin /Destination in the subject heading. Email address: DCSIMPlanningTeam@networkrail.co.uk											
		16/12/2021		1Q16WW	ThO	02:55	BANBURY	READING	05:27	HSMT	RG
PLP141	4 - weekly	26/12/2021	Derby RTC - Leeds - S&C - Carlisle - Newcastle - Heaton	1Q17GB	Sun	10:30	DERBY R.T.C.(NETWORK RAIL)	HEATON T&R.S.M.D.	16:09	HST7-125	RG
PLP127	4 - weekly	17/12/2021	Reading Triangle - Penzance, Paignton , Bristol & Bordesley - Derby	1Q18DA	FO	06:11	READING TRIANGLE SIDINGS	PAIGNTON	15:29	HSMT	RG
		17/12/2021		1Z18DA	FO	15:39	PAIGNTON	TAUNTON	18:35	HSMT	RG
		17/12/2021		1Q19DA	FO	18:57	TAUNTON	LONDON PADDINGTON	21:35	HSMT	RG
		17/12/2021		1Q21DB	FO	22:05	LONDON PADDINGTON	DERBY R.T.C.(NETWORK RAIL)	01:57	HSMT	RG
PLP123	4 - weekly	13/12/2021	Heaton - Tees - Donc - KX Slows and Loops - Derby RTC	1Q19GZ	MO	08:39	HEATON T&R.S.M.D.	DERBY R.T.C.(NETWORK RAIL)	02:10	HSMT	RG
PLP147	4 - weekly	07/01/2022	Crewe LNWR - Newport - Crewe - Derby RTC	1Q20DB	FO	07:50	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	17:15	HSMT	RG
PLP126	4 - weekly	16/12/2021	Reading T - Exeter - Southampton - Westbury - Reading T	1Q23DB	ThO	05:56	READING	SALISBURY	15:12	HSMT	RG
		16/12/2021		1X23DD	ThO	15:13	SALISBURY	SALISBURY	16:50	HSMT	RG
		16/12/2021		1Q23DD	ThO	17:04	SALISBURY	READING TRIANGLE SIDINGS	18:22	HSMT	RG
PLP153A	8 - weekly	31/01/2022	Heaton - Edinburgh - Gartshore DPL - Glasgow Queens Street - Polmont UPL - Edinburgh - Newcastle	1Q23GB	MO	10:33	HEATON T&R.S.M.D.	NEWCASTLE	16:49	HST7-125	RG

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PLP116A	8 - weekly	06/01/2022	Derby - Colw - Cheadle - Birm - Rugby - Dn Cov - TV Jn - Stoke - Colw - Derby	1Q24EE	ThO	06:44	DERBY R.T.C.(NETWORK RAIL)	DERBY	17:24	HST7-125	RG
PLP113A	8 - weekly	29/12/2021	Heaton Depot - Manors - Edinburgh - Glasgow QS - Edinburgh - Newcastle	1Q24GB	MO	10:33	HEATON T&R.S.M.D.	NEWCASTLE	16:49	HST7-125	RG
PLP156A	8 - weekly	03/02/2022	Derby RTC - Colw - Cheadle - Birm - Rugby - DF - TV Jn - Stoke - Colw - Derby	1Q25EE	ThO	06:44	DERBY R.T.C.(NETWORK RAIL)	DERBY	17:24	HST7-125	RG
PLP155A	8 - weekly	02/02/2022	Slatford Depot - Haymarket - Carstairs South Jn - Crewe LNWR	1Q26IK	WO	07:56	SLATFORD DEPOT	CREWE C.S. (L&NWR SITE)	12:02	HST7-125	RG
PLP115A	8 - weekly	31/12/2021	Slatford Depot - Craiglockhart Jn - Slatford Jn - Carstairs - Crewe	1Q26LS	WO	06:35	SLATFORD DEPOT	CREWE C.S. (L&NWR SITE)	12:02	HST7-125	RG
PLP114	8 - weekly	30/12/2021	Derby RTC - Colwich - WCML - Glasgow - Edinburgh - Aberdeen - Slatford Depot	1Q26RR	TO	06:13	DERBY R.T.C.(NETWORK RAIL)	EDINBURGH	13:17	HST7-125	RG
PLP154	8 - weekly	01/02/2022	Derby RTC - Colwich - WCML - Glasgow - Edinburgh - Aberdeen - Slatford Depot	1Q26RT	TO	06:13	DERBY R.T.C.(NETWORK RAIL)	EDINBURGH	13:17	HST7-125	RG
PLP114 & PLP154	4 - weekly	30/12/2021	Derby RTC - Colwich - WCML - Glasgow - Edinburgh - Aberdeen - Slatford Depot	1Q26RS	TO	13:45	EDINBURGH	SLATFORD DEPOT	23:44	HST7-125	RG
PLP155B	8 - weekly	02/02/2022	Crewe LNWR - Euston A and X - Rugby - Crewe - Derby RTC	1Q27GB	WO	12:29	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	19:23	HSMT	RG
PLP144	4 - weekly	04/01/2022	Derby RTC - Lich - Euston - Crewe - Lich -	1Q28EA	TO	14:28	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK	23:46	HSMT	RG

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			Derby RTC					RAIL)			
PLP121	4 - weekly	08/01/2022	Derby RTC - Sheet Stores - S and K - York - Sunderland - Newcastle - Heaton Depot	1Q28GA	Sun	10:22	DERBY R.T.C.(NETWORK RAIL)	HEATON T&R.S.M.D.	14:34	HSMT	RG
PLP115B	8 - weekly	31/12/2021	Crewe - MK - Euston D and E - MK - Crewe - Derby RTC	1Q29GB	WO	12:29	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	19:23	HSMT	RG
PLP146	4 - weekly	06/01/2022	Derby RTC - Crewe - Holyhead - Crewe LNWR	1Q30FA	ThO	10:55	DERBY R.T.C.(NETWORK RAIL)	CREWE C.S. (L&NWR SITE)	23:56	HSMT	RG
PLP131	4 - weekly	19/12/2021	Derby RTC - Saltburn - Heaton	1Q31GB	Sun	10:09	DERBY R.T.C.(NETWORK RAIL)	HEATON T&R.S.M.D.	16:23	HST7-125	RG
PLP111	4 - weekly	09/01/2022	Derby RTC - Derby - Doncaster - Hull - Newcastle - Heaton Depot	1Q34GB	Sun	10:22	DERBY R.T.C.(NETWORK RAIL)	HULL	12:01	HST7-125	RG
		09/01/2022		1Q35GC	Sun	12:25	HULL	HEATON T&R.S.M.D.	15:09	HST7-125	RG
PLP113B	4 - weekly	29/12/2021	Newcastle - Sunderland - York - S and K - Sheet Stores - Derby RTC	1Q37GB	MO	17:56	NEWCASTLE	DERBY R.T.C.(NETWORK RAIL)	22:27	HST7-125	RG
PLP223	4 - weekly	20/12/2021	Derby RTC - Peak Forest - Wrexham and Wirral Lines - Crewe LNWR	1Q41FA	MO	13:11	DERBY R.T.C.(NETWORK RAIL)	CREWE C.S. (L&NWR SITE)	04:33	LD75	RG
PLP224	4 - weekly	21/12/2021	Crewe LNWR - Warrington and Mersey North Electrics - Crewe LNWR	1Q42FA	TO	18:45	CREWE C.S. (L&NWR SITE)	CREWE C.S. (L&NWR SITE)	07:31	LD75	RG
PLP225	4 - weekly	22/12/2021	Crewe LNWR - Manchester Eastern Suburbans - Crewe LNWR	1Q43FA	WO	18:45	CREWE C.S. (L&NWR SITE)	CREWE C.S. (L&NWR SITE)	07:33	LD75	RG

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PLP226	4 - weekly	23/12/2021	Crewe LNWR - Manchester Liverpool Lines - Crewe LNWR	1Q44FA	ThO	18:45	CREWE C.S. (L&NWR SITE)	CREWE C.S. (L&NWR SITE)	07:35	LD75	RG
PLP227	4 - weekly	21/01/2022	Crewe LNWR - Manchester - Buxton - Sheffield - Derby RTC	1Q45FA	FO	21:00	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	06:42	LD75	RG
PLP233	4 - weekly	20/12/2021	Derby RTC - KSL - Toton - Tyseley LMD	1Q46EA	MO	08:52	DERBY R.T.C.(NETWORK RAIL)	TYSELEY L.M.D.	17:13	LD75	RG
PLP434	4 - weekly	20/12/2021	Derby RTC - Cumbrian Coast - Carlisle	1Q47FA	TO	10:55	DERBY R.T.C.(NETWORK RAIL)	CARLISLE HIGH WAPPING SDGS	19:32	LD75	RG
PLP234	4 - weekly	21/12/2021	Tyseley LMD - Stratford - Nuneaton - Kenilworth - Tyseley LMD	1Q48FA	TO	19:33	TYSELEY L.M.D.	TYSELEY L.M.D.	03:39	LD75	RG
PLP137	4 - weekly	23/12/2021	Derby RTC - Grantham - Skegness - Derby RTC	1Q49EE	ThO	09:37	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	16:54	HSMT	RG
PLP246	4 - weekly	16/12/2021	Derby RTC - Cleethorpes - Sheffield - Doncaster West Yard	1Q50GC	ThO	13:40	DERBY R.T.C.(NETWORK RAIL)	DONCASTER WEST YARD	03:16	HSMT	RG
PLP333	4 - weekly	20/12/2021	Derby RTC - Corby - Weymouth - Eastleigh	1Q51CA	MO	11:15	DERBY R.T.C.(NETWORK RAIL)	EASTLEIGH ARLINGTON (ZG)	00:01	LD75	RG
PLP334	4 - weekly	18/01/2022	Eastleigh - Littlehampton - Lymington Pier - Eastleigh	1Q52CA	TO	10:37	EASTLEIGH ARLINGTON (ZG)	EASTLEIGH ARLINGTON (ZG)	00:01	LD75	RG
PLP136	4 - weekly	21/01/2022	Derby RTC - Loughborough - Nottingham - St Pancras - Radlett - St Pancras - Derby - Derby RTC	1Q52ES	FO	22:30	DERBY R.T.C.(NETWORK RAIL)	ST PANCRAS INTERNATIONAL	01:37	HSMT	RG
		22/01/2022		1Q53ES	SO	02:20	ST PANCRAS INTERNATIONAL	ST PANCRAS INTERNATIONAL	03:35	HSMT	RG
		22/01/2022		1Q54ES	SO	03:45	ST PANCRAS INTERNATIONAL	DERBY R.T.C.(NETWORK RAIL)	05:45	HSMT	RG
PLP335	4 - weekly	22/12/2021	Eastleigh - Wimbledon - Eastleigh	1Q53CA	WO	11:48	EASTLEIGH ARLINGTON (ZG)	SOUTHAMPTON UP YARD	17:26	LD75	RG

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	4 - weekly	22/12/2021		1Q53CB	WO	18:04	SOUTHAMPTON UP YARD	EASTLEIGH ARLINGTON (ZG)	00:51	LD75	RG
PLP247	4 - weekly	17/12/2021	Doncaster West Yard - Sheffield - Immingham - Derby RTC	1Q53GC	FO	20:46	DONCASTER WEST YARD	DERBY R.T.C.(NETWORK RAIL)	06:20	HSMT	RG
PLP336	4 - weekly	23/12/2021	Eastleigh - Aldershot - Reading - Guildford - Alton - Tonbridge West Yard	1Q54CA	ThO	12:46	EASTLEIGH ARLINGTON (ZG)	TONBRIDGE WEST YARD	02:30	LD75	RG
PLP237	4 - weekly	28/01/2022	Tyseley LMD - Wrexham - Snow Hill - Derby RTC	1Q55EA	FO	14:56	TYSELEY L.M.D.	DERBY R.T.C.(NETWORK RAIL)	03:25	LD75	RG
PLP341A	4 - weekly	22/01/2022	Tonbridge West Yard - Hastings - Eastbourne - Aldershot - Woking	1Q56BA	SO	10:30	HITHER GREEN P.A.D.	WOKING UP C.H.S.	23:48	LD75	PE
PLP243	4 - weekly	13/21/2021	Derby RTC - West Midlands - Derby RTC	1Q56EA	MO	20:34	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	06:06	LD75	RG
PLP601	13 - weekly	11/01/2022	Cardiff - ADJ - Cardiff Valleys - ADJ - Cardiff	1Q58DA	TO	21:45	CARDIFF CANTON SIDINGS	CARDIFF CANTON SIDINGS	06:09	LD75	RG
PLP602	13 - weekly	12/01/2022	Cardiff - ADJ - VOG - Cardiff Valleys - ADJ - Cardiff	1Q59DA	WO	21:09	CARDIFF CANTON SIDINGS	CARDIFF CANTON SIDINGS	06:49	LD75	RG
PLP413	4 - weekly	13/12/2021	Derby RTC - Maltby - Scarborough - Neville Hill	1Q60RS	MO	08:52	DERBY R.T.C.(NETWORK RAIL)	BARLBY LOOPS	15:06	LD75	RG
		13/12/2021		1Q61RS	MO	15:36	BARLBY LOOPS	GASCOIGNE WOOD DOWN LOOP	17:31½	LD75	RG
		13/12/2021		1Q62RS	MO	19:07	GASCOIGNE WOOD DOWN LOOP	SCARBOROUGH	20:33	LD75	RG
		13/12/2021		1Q63RS	MO	20:45	SCARBOROUGH	MILFORD LOOP	21:57½	LD75	RG
		13/12/2021		1Q64RS	MO	22:15	MILFORD LOOP	NEVILLE HILL T&R.S.M.D	00:55	LD75	RG

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PLP343	4 - weekly	24/01/2022	Woking - Windsor - Waterloo - Strawberry Hill - Woking	1Q64CA	MO	20:45	WOKING UP C.H.S.	WOKING UP C.H.S.	05:17	LD75	PE
PLP344	4 - weekly	25/01/2022	Woking - Horsham - Chessington - Hampton Court - Woking	1Q65CA	TO	20:42	WOKING UP YARD RECP.	WOKING UP C.H.S.	05:39	LD75	PE
PLP414	4 - weekly	14/12/2021	Neville H - Selby - Skipton and Brad - Neville H	1Q65GA	TO	21:37	NEVILLE HILL T&R.S.M.D	SELBY	22:36	LD75	RG
		14/12/2021		1Q75GA	TO	22:45	SELBY	ILKLEY	00:25	LD75	RG
		15/12/2021		1Q76GA	WO	00:35	ILKLEY	LEEDS	01:08	LD75	RG
		15/12/2021		1Q85GA	WO	01:25	LEEDS	SKIPTON DOWN SHIPLEY SLOW	03:27	LD75	RG
		15/12/2021		1Q86GA	WO	03:37	SKIPTON DOWN SHIPLEY SLOW	NEVILLE HILL T&R.S.M.D	05:56	LD75	RG
PLP415	4 - weekly	15/12/2021	Neville Hill - Goole - Barnsley and Bradford - Neville Hill	1Q66GA	WO	21:32	NEVILLE HILL T&R.S.M.D	GOOLE UP GOODS LOOP	23:25	LD75	RG
		15/12/2021		1Q67GA	WO	23:49	GOOLE UP GOODS LOOP	NEVILLE HILL T&R.S.M.D	07:32	LD75	RG
PLP346A	4 - weekly	03/01/2022	Woking - London - Orpington - Guildford - Tonbridge West Yard	1Q67BA	ThO	17:44	WOKING UP YARD RECP.	LONDON CANNON STREET	05:04	LD75	PE
		04/01/2022		1Q67BB	FO	05:16	LONDON CANNON STREET	TONBRIDGE WEST YARD	06:24	LD75	PE
PLP416	4 - weekly	16/12/2021	Neville H - Leeds - Man Vic - Blackburn and Bradford - Neville H	1Q67FA	ThO	17:32	NEVILLE HILL T&R.S.M.D	WIGAN NORTH WESTERN	23:17	LD75	RG
		16/12/2021		1Q68GA	ThO	23:22	WIGAN NORTH WESTERN	NEVILLE HILL T&R.S.M.D	01:42	LD75	RG
PLP417	4 - weekly	18/12/2021	Neville Hill - Doncaster - Maltby - Derby RTC	1Q68RD	SO	02:19	NEVILLE HILL T&R.S.M.D	DERBY R.T.C.(NETWORK RAIL)	15:16	LD75	RG

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PLP311A	4 - weekly	04/01/2022	Tonbridge West Yard - Ashford - Guildford - Leicester - Derby RTC	1Q69BA	SO	08:35	TONBRIDGE WEST YARD	SOUTH CROYDON	12:06	LD75	PE
		04/01/2022		1Q69BB	SO	12:22	SOUTH CROYDON	DERBY R.T.C.(NETWORK RAIL)	22:01	LD75	PE
PLP311B	12 - weekly	26/03/2022	Dollands Moor - Guildford - Leicester - Derby RTC please note 1Q69BB to be used from South Croydon to Derby RTC	1Q70BA	SO	10:06	DOLLANDS MOOR SDGS	SOUTH CROYDON	12:04	LD75	PE
PLP313	4 - weekly	03/01/2022	Derby RTC - Leicester - Victoria - East Croydon - Tonbridge West Yard	1Q71BA	MO	19:40	DERBY R.T.C.(NETWORK RAIL)	TONBRIDGE WEST YARD	06:46	LD75	RG
PLP314	4 - weekly	04/01/2022	Tonbridge West Yard - Victoria - East Croydon - London Bridge - Tonbridge West Yard	1Q72BA	TO	18:13	TONBRIDGE WEST YARD	LONDON BRIDGE	01:20	LD75	RG
		05/01/2022		1Q72BB	WO	01:30	LONDON BRIDGE	TONBRIDGE WEST YARD	06:13	LD75	RG
PLP316A	4 - weekly	06/01/2022	Tonbridge - South London - Maidstone West - Tonbridge	1Q73BA	ThO	18:12	TONBRIDGE WEST YARD	LONDON CHARING CROSS	02:48	LD75	RG
		07/01/2022		1Q73BB	FO	02:59	LONDON CHARING CROSS	SEVENOAKS	09:09	LD75	RG
		07/01/2022		1Q73BC	FO	09:25	SEVENOAKS	TONBRIDGE WEST YARD	09:55	LD75	RG
PLP316B	8 - weekly	06/01/2022	Tonbridge - South London - Maidstone West - Dollands Moor runs as an alternative to 1Q73BC when required	1Q88BB	FO	09:25	SEVENOAKS	DOLLANDS MOOR SDGS	13:44	LD75	RG
PLP315	4 - weekly	05/01/2022	Tonbridge West Yard - North Kent - Dover - Tonbridge West Yard	1Q74BA	WO	22:00	TONBRIDGE WEST YARD	NEW CROSS	03:59	LD75	RG
		06/01/2022		1Q74BB	ThO	04:09	NEW CROSS	HITHER GREEN P.A.D.	12:07	LD75	RG

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PLP435	4 - weekly	21/12/2021	Carlisle - GSW - Mossend	1Q74RD	WO	06:10	CARLISLE HIGH WAPPING SDGS	MOSSEND DOWN YARD	19:27	LD75	RG
PLP323	4 - weekly	13/12/2021	Tonbridge West Yard - Littlehampton - Brighton - Wimbledon - Tonbridge West Yard	1Q75BA	MO	12:31	TONBRIDGE WEST YARD	BRIGHTON	17:58	LD75	RG
		13/12/2021		1Q75BB	MO	18:08	BRIGHTON	TONBRIDGE WEST YARD	04:05	LD75	RG
PLP436	4 - weekly	20/01/2022	Mossend - Lanark - N Berwick - Bathgate - Ed Subs - Milngavie - Mossend	1Q75LA	ThO	15:00	MOSSEND DOWN YARD	MOSSEND DOWN YARD	05:52	LD75	RG
PLP326A	4 - weekly	16/12/2021	Tonbridge West Yard - Bognor Regis - Eastbourne - Brighton - Tonbridge West Yard	1Q76BA	ThO	11:31	TONBRIDGE WEST YARD	SEAFORD	00:44	LD75	RG
		17/12/2021		1Q76BB	FO	00:54	SEAFORD	TONBRIDGE WEST YARD	03:25	LD75	RG
PLP326B	8 - weekly	10/02/2022	Tonbridge West Yard - Bognor Regis - Eastbourne - Brighton - Dollands Moor, runs as an Altrantive to 1Q76BB when required	1Q87BB	FO	00:54	SEAFORD	DOLLANDS MOOR SDGS	04:02	LD75	RG
PLP437	4 - weekly	22/01/2022	Mossend - Ayrshire - WCML Electrics - Mossend	1Q76RL	FO	17:47	MOSSEND DOWN GOODS LOOP	MOSSEND DOWN YARD	06:45	LD75	RG
PLP325	4 - weekly	15/12/2021	Tonbridge West Yard - Margate - Maidstone - Canterbury - Tonbridge West Yard	1Q77BA	WO	11:09	TONBRIDGE WEST YARD	TONBRIDGE WEST YARD	02:12	LD75	RG
PLP441	4 - weekly	22/01/2022	Mossend - Inverness - Aberdeen - Inverness	1Q77LA	SO	13:36	MOSSEND DOWN YARD	INVERNESS MILLBURN C.RAIL	02:05	LD75	RG
PLP324	4 - weekly	14/12/2021	Tonbridge - Sheerness - Uckfield - Caterham - Tonbridge	1Q78BA	TO	13:12	TONBRIDGE WEST YARD	TONBRIDGE WEST YARD	03:42	LD75	RG

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PLP442B	8 - weekly	20/03/2022	Inverness - Kyle of Lochalsh - Inverness	1Q78RA	SUN	13:12	INVERNESS MILLBURN C.RAIL	INVERNESS MILLBURN C.RAIL	22:54	LD75	RG
PLP442A			Inverness - Thurso - Wick - Inverness	1Q78RB	SUN	08:46	INVERNESS MILLBURN C.RAIL	INVERNESS MILLBURN C.RAIL	20:47	LD75	RG
PLP331A	4 - weekly	18/12/2021	Tonbridge West Yard - Catford - Corby - Derby RTC	1Q79BA	SO	09:09	TONBRIDGE WEST YARD	DERBY R.T.C.(NETWORK RAIL)	21:33	LD75	RG
PLP443	4 - weekly	24/01/2022	Inverness - Fife - Mossend	1Q79RA	MO	14:52	INVERNESS MILLBURN C.RAIL	MOSSEND DOWN YARD	03:54	LD75	RG
PLP331B	4 - weekly	12/02/2022	Dollands Moor - Catford - Corby - Derby RTC	1Q80BA	SO	13:41	DOLLANDS MOOR SDGS	DERBY R.T.C.(NETWORK RAIL)	21:33	LD75	RG
PLP444	4 - weekly	25/01/2022	Mossend - Helensburgh - Balloch - Anniesland - Mossend	1Q80RT	TO	15:56	MOSSEND DOWN YARD	MOSSEND DOWN YARD	05:26	LD75	RG
PLP445	4 - weekly	26/01/2022	Mossend - Grangemouth - Kilmarnock - Carlisle	1Q81RA	WO	18:56	MOSSEND DOWN YARD	CARLISLE HIGH WAPPING SDGS	04:55	LD75	RG
PLP446	4 - weekly	22/12/2021	Carlisle - Barrow - Blackpool	1Q82RA	ThO	16:35	CARLISLE HIGH WAPPING SDGS	BLACKPOOL NORTH	05:48	LD75	RG
PLP447	4 - weekly	23/12/2021	Blackpool - Preston - Settle - Bolton - Crewe - Derby RTC	1Q83RJ	FO	14:15	BLACKPOOL NORTH	DERBY R.T.C.(NETWORK RAIL)	04:14	LD75	RG
PLP431	4 - weekly	08/01/2022	March - Peterborough - Doncaster - Derby	1Q86RF	SO	10:29	PETERBORO' CRESCENT SHOPS	DERBY R.T.C.(NETWORK RAIL)	21:19	LD75	RG
PLP423	4 - weekly	03/01/2022	Derby RTC - Cambridge - Liverpool Street - Ferme Park	1Q90RA	MO	15:15	DERBY R.T.C.(NETWORK RAIL)	FERME PARK RECP.	04:59	LD75	RG
PLP424	4 - weekly	04/01/2022	Ferme Park - LTS - NLL - WLL - T and H - Ferme Park	1Q95RW	TO	15:03	FERME PARK RECP.	RIPPLE LANE WEST S.S.	18:27	LD75	RG
		04/01/2022		1Q96RW	TO	19:56	RIPPLE LANE WEST S.S.	FERME PARK RECP.	06:28	LD75	RG

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PLP425	4 - weekly	05/01/2022	Ferme Park - London - Colchester - Cambridge	1Q97RF	WO	10:50	FERME PARK RECP.	CAMBRIDGE T.&R.S.M.D.	03:19	LD75	RG
PLP426	4 - weekly	06/01/2022	Cambridge - Yarmouth and Lowestoft - Cambridge	1Q98BE	ThO	14:04	CAMBRIDGE T.&R.S.M.D.	CAMBRIDGE T.&R.S.M.D.	04:04	LD75	RG
PLP427	4 - weekly	07/01/2022	Cambridge - Felixstowe - Peterborough - March	1Q99ZP	FO	16:27	CAMBRIDGE T.&R.S.M.D	PETERBORO' CRESCENT SHOPS	03:53	LD75	RG
PLP116B	4 - weekly	06/01/2022	Derby - Bristol Temple Meads - Swindon - Bristol Temple Meads - Severn Beach - Reading - London Paddington	1Z17DA	ThO	17:33	DERBY	LONDON PADDINGTON	04:23	HSMT	RG
PLP117	4 - weekly	07/01/2022	London Paddington - Swansea - Bristol Parkway - Derby RTC	1Z20DA	FO	05:07	LONDON PADDINGTON	DERBY R.T.C.(NETWORK RAIL)	14:46	HSMT	RG
PLP235	4 - weekly	22/12/2021	Tyseley LMD - Didcot - Weymouth - Bristol TM	1Z22JY	WO	08:20	TYSELEY L.M.D.	BRISTOL HIGH LEVEL SIDING	22:31	HSMT	RG
PLP236	4 - weekly	23/12/2021	Bristol TM - Didcot - Wigston - Tyseley LMD	1Z23DA	ThO	06:11	BRISTOL HIGH LEVEL SIDING	TYSELEY L.M.D.	19:13	HSMT	RG
UTU051	8 - weekly	21/12/2021	Woking - Wimbledon - Basingstoke - Reading - Basingstoke - Woking - Eastleigh	3Q01CA	TO	23:38	WOKING UP YARD RECP.	EASTLEIGH ARLINGTON (ZG)	06:44	UTU-T	RG
UTU007	8 - weekly	27/01/2022	Tyseley - Bordesley - Banbury - Leamington Spa - Coventry - Leamington Spa - Bordesley - Derby	3Q02SB	ThO	23:42	TYSELEY L.M.D.	DERBY R.T.C.(NETWORK RAIL)	08:19	UTU-R	RG
UTU053	8 - weekly	28/12/2021	Eastleigh - Southampton - Basingstoke - Reading - Didcot - Reading	3Q04CB	ThO	21:21	EASTLEIGH ARLINGTON (ZG)	READING TRIANGLE SIDINGS	05:32	UTU-T	RG

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UTU031A & UTU031B	8 - weekly	25/01/2022	Reading - Guildford - Woking - Portsmouth - Guildford - Reading different recording sections	3Q05DA	TO	23:17	READING TRIANGLE SIDINGS	READING TRIANGLE SIDINGS	06:12	UTU-T	RG
UTU058	8 - weekly	17/01/2022	Derby - Reading - Cogload - Exeter	3Q06DD	MO	14:28	DERBY R.T.C.(NETWORK RAIL)	EXETER RIVERSIDE N.Y.	02:45	UTU-T	RG
UTU147A & UTU147B	8 - weekly	20/01/2022	Exeter - Salisbury - Exeter different recording sections	3Q07DA	ThO	20:53	EXETER RIVERSIDE N.Y.	EXETER RIVERSIDE N.Y.	04:58	UTU-T	RG
UTU041	8 - weekly	24/01/2022	Reading - Cricklewood - Leicester - Derby	3Q07SG	MO	21:26	READING TRIANGLE SIDINGS	DERBY R.T.C.(NETWORK RAIL)	04:58	UTU-T	RG
UTU017	8 - weekly	16/12/2021	Heaton - Newcastle - Doncaster - Barrow Hill - Derby	3Q08GN	FO	22:55	HEATON T&R.S.M.D.	DERBY R.T.C.(NETWORK RAIL)	06:24	UTU-T	RG
UTU046	8 - weekly	03/01/2022	Woking - Waterloo - Epsom - Wimbledon - Woking - Waterloo - Hither Green	3Q09CB	MO	22:04	WOKING UP YARD RECP.	HITHER GREEN P.A.D.	06:45	UTU-R	RG
UTU034S	8 - weekly	03/01/2022	Derby - Grantham - FL - Kings Cross - Hither Green	3Q10BA	MO	21:12	DERBY R.T.C.(NETWORK RAIL)	HITHER GREEN P.A.D.	06:41	UTU-T	RG
UTU016S	8 - weekly	20/12/2021	Derby - Kettering - St Panc - Mill Hill Bway - Acton W - Weyb - Byfleet - Woking	3Q10EL	MO	20:48	DERBY R.T.C.(NETWORK RAIL)	WOKING UP YARD RECP.	05:39	UTU-T	RG
UTU034N	8 - weekly	16/12/2021	Hither Green - Kings Cross - FL - Grantham - Derby RTC	3Q11EA	FO	23:06	HITHER GREEN P.A.D.	DERBY R.T.C.(NETWORK RAIL)	07:54	UTU-T	RG
UTU072	8 - weekly	31/01/2022	Derby - Weaver Jn - Carlisle - High Wapping	3Q12FC	MO	22:34	DERBY R.T.C.(NETWORK RAIL)	CARLISLE HIGH WAPPING SDGS	06:09	UTU-T	RG
UTU110A	8 - weekly	16/02/2022	Neville Hill - Doncaster - Brocklesby - Doncaster -	3Q12SC	WO	21:01	NEVILLE HILL T&R.S.M.D	DONCASTER	21:58	UTU-T	RG

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		16/02/2022	Skellow - Carcroft - Neville Hill	3Q13SC	WO	22:21	DONCASTER	NEVILLE HILL T&R.S.M.D	05:38	UTU-R	RG
UTU110B	8 - weekly	13/04/2022	Neville Hill - Doncaster - Brocklesby - Doncaster - Hexthorp Jn - Thrybergh Jn - Neville Hill	3Q12SD	WO	21:07	NEVILLE HILL T&R.S.M.D	DONCASTER	21:58	UTU-T	RG
		13/04/2022		3Q13SD	WO	22:21	DONCASTER	NEVILLE HILL T&R.S.M.D	06:23	UTU-R	RG
UTU110C	8 - weekly	22/12/2021	Neville Hill - Doncaster - Brocklesby - Doncaster - Goole - Neville Hill	3Q12SE	WO	21:07	NEVILLE HILL T&R.S.M.D	DONCASTER	21:54	UTU-T	RG
		22/12/2021		3Q13SE	WO	22:21	DONCASTER	NEVILLE HILL T&R.S.M.D	05:38	UTU-R	RG
UTU059A	8 - weekly	21/01/2022	Exeter - Cogload - Reading - Frimley - Reading	3Q13DA	FO	20:28	EXETER RIVERSIDE N.Y.	READING TRIANGLE SIDINGS	05:18	UTU-T	RG
UTU059B	8 - weekly	18/03/2022	Exeter - Cogload - Reading - Windsor Eton Riverside - Reading	3Q13DB	FO	20:28	EXETER RIVERSIDE N.Y.	READING TRIANGLE SIDINGS	05:23	UTU-T	RG
UTU059C	8 - weekly	15/05/2022	Exeter - Cogload - Reading - Wokingham - Guildford - Reading	3Q13DC	FO	20:28	EXETER RIVERSIDE N.Y.	READING TRIANGLE SIDINGS	04:55	UTU-T	RG
UTU090	8 - weekly	15/12/2021	Slateford - Edinburgh - Newcastle - Heaton	3Q14GS	ThO	21:03	SLATEFORD DEPOT	HEATON T&R.S.M.D.	04:16	UTU-T	RG
UTU086	8 - weekly	03/01/2022	Derby - Barrow Hill - Doncaster - Newcastle - Heaton	3Q15GN	MO	20:31	DERBY R.T.C.(NETWORK RAIL)	HEATON T&R.S.M.D.	05:34	UTU-T	RG
UTU045	8 - weekly	31/01/2022	Derby - Colwich - Cheadle - Crewe	3Q16FA	MO	20:46	DERBY R.T.C.(NETWORK RAIL)	CREWE C.S. (L&NWR SITE)	06:29	UTU-T	RG
UTU008	8 - weekly	02/02/2022	Carlisle - Glasgow - Paisley - Mossend	3Q16LM	WO	00:03	CARLISLE HIGH WAPPING SDGS	MOSSSEND DOWN YARD	06:17	UTU-R	RG
UTU015A	8 - weekly	04/02/2022	Crewe - Stafford - Rugby via Birmingham New Street - Derby RTC	3Q17EB	FO	23:21	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	08:31	UTU-T	RG

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UTU015B	8 - weekly	01/04/2022	Crewe - Stafford - Rugby via Birm and Sutton Park - Derby RTC	3Q17EB	FO	23:21	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	08:31	UTU-T	RG
UTU043	8 - weekly	10/01/2022	Derby - York - Moorthorpe - Leeds - Neville Hill	3Q19SB	MO	23:06	DERBY R.T.C.(NETWORK RAIL)	NEVILLE HILL T&R.S.M.D	05:38	UTU-T	RG
UTU062	8 - weekly	05/01/2022	Hither Green - Victoria - Brighton Fasts - Hither Green	3Q20BC	WO	21:59	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	05:56	UTU-T	RG
UTU040	8 - weekly	17/02/2022	Derby - MML - St Pancs - Liverpool St - Stansted - Cambridge	3Q20SB	MO	21:22	DERBY R.T.C.(NETWORK RAIL)	CAMBRIDGE T.&R.S.M.D.	05:46	UTU-T	RG
UTU032A	8 - weekly	06/02/2022	Hither Green - London Bridge - Caterham - East Grinstead - Atlantics - Woking	3Q21BC	ThO	20:40	HITHER GREEN P.A.D.	WOKING UP YARD RECP.	05:50	UTU-T	RG
UTU032B	8 - weekly	24/02/2022	Hither Green - London Bridge - Tattenham Corner - East Grinstead - Atlantics - Woking	3Q21BT	ThO	20:40	HITHER GREEN P.A.D.	WOKING UP YARD RECP.	05:50	UTU-T	RG
UTU003A	8 - weekly	21/02/2022	Derby - Trent - Nottingham - Stenson - Erewash - Derby	3Q21EA	MO	23:02	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	04:54	UTU-T	RG
UTU003B	8 - weekly	18/04/2022	Derby - Trent - Nottingham - Erewash - Derby	3Q21EB	MO	23:02	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	04:53	UTU-T	RG
UTU022A & UTU022B	8 - weekly	28/01/2022	Bristol High Level - Swindon - Didcot - Banbury - Derby RTC	3Q21SB	FO	22:49	BRISTOL HIGH LEVEL SIDING	DERBY R.T.C.(NETWORK RAIL)	09:18	UTU-T	RG
UTU037	8 - weekly	05/01/2022	Hither Green - Victoria - Balcombe - Horsham Slows - Hither Green	3Q22BC	WO	20:30	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	04:50	UTU-T	RG
UTU016N	8 - weekly	08/01/2022	Woking - Basingstoke - Woking and MML Slow North - Derby	3Q26EM	SO	00:21	WOKING UP YARD RECP.	DERBY R.T.C.(NETWORK RAIL)	09:30	UTU-T	RG

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UTU102A	8 - weekly	25/03/2022	Derby - Birmingham New St - Lichfield TV - Derby	3Q27EA	FO	22:55	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	07:01	UTU- T	RG
UTU102B	8 - weekly	28/01/2022	Derby - Birmingham New St - Rugeley TV - Derby	3Q27EB	FO	22:55	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	07:01	UTU- T	RG
UTU042	8 - weekly	11/01/2022	Neville Hill - South Kirby - Sheffield - Derby - Leicester - Derby	3Q28SB	FO	22:02	NEVILLE HILL T&R.S.M.D	DERBY R.T.C.(NETWORK RAIL)	03:56	UTU- T	RG
UTU006	8 - weekly	26/01/2022	Derby - Crewe - Liverpool - Crewe - Tyseley	3Q30SB	WO	22:44	DERBY R.T.C.(NETWORK RAIL)	TYSELEY L.M.D.	07:05	UTU- T	RG
UTU057A	8 - weekly	29/12/2021	Reading - Paddington Reliefs - Basingstoke - Eastleigh - Woking	3Q40DC	FO	23:53	READING TRIANGLE SIDINGS	WOKING UP YARD RECP.	06:48	UTU- T	RG
UTU039	8 - weekly	24/01/2022	Derby - Banbury - Didcot - Paddington - Reading	3Q40SC	MO	21:49	DERBY R.T.C.(NETWORK RAIL)	READING TRIANGLE SIDINGS	05:40	UTU- T	RG
UTU065A	8 - weekly	13/01/2022	Hither Green - Rochester - Charing X - Orpington Fasts - Hither Green	3Q41BB	ThO	19:57	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	05:20	UTU- T	RG
UTU048	8 - weekly	12/01/2022	Hither Green - Swanley - Ashford - Ramsgate - Swanley - Hither Green	3Q43BA	WO	22:02	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	05:47	UTU- T	RG
UTU065B & UTU065C	8 - weekly	01/01/2022	Hither Green - Lewisham - Dartford - Cannon Street - Hither Green	3Q44BB	FO	21:28	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	07:06	UTU- T	RG
UTU064	8 - weekly	06/01/2022	Hither Green - Swanley - Ramsgate - Ashford - Swanley - Hither Green	3Q45BA	ThO	23:16	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	05:31	UTU- T	RG
UTU049	8 - weekly	04/01/2022	Hither Green - Victoria - Swanley - London Bridge - Hither Green	3Q46BA	TO	22:12	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	05:23	UTU- T	RG
UTU143A	8 - weekly	19/12/2021	Derby - Aynho - Marylebone - Oxford - Reading	3Q46EA	MO	23:20	DERBY R.T.C.(NETWORK RAIL)	FERME PARK RECP.	06:46	UTU- T	PE

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UTU143B	8 - weekly	14/02/2022	Derby - Aynho - Marylebone - Oxford - Reading	3Q46DR	MO	22:15	DERBY R.T.C.(NETWORK RAIL)	READING TRIANGLE SIDINGS	04:36	UTU-T	RG
UTU144B	8 - weekly	15/02/2022	Reading - Oxford - Bicester - Aynho Jn - Derby	3Q47RD	TO	22:49	READING TRIANGLE SIDINGS	DERBY R.T.C.(NETWORK RAIL)	06:58	UTU-T	RG
UTU047	8 - weekly	04/01/2022	Hither Green - Orpington - Dover - Hither Green	3Q48BA	TO	23:59	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	06:33	UTU-T	RG
UTU144A	8 - weekly	23/12/2021	Reading - Oxford - Bicester - Aynho Jn - Derby	3Q50EA	FO	23:42	FERME PARK RECP.	DERBY R.T.C.(NETWORK RAIL)	09:30	UTU-T	PE
UTU210A	8 - weekly	18/01/2022	Exeter - Gunnislake - St Ives - Penzance	3Q52DA	TO	22:34	EXETER RIVERSIDE N.Y.	PENZANCE	07:08	UTU-T	RG
UTU210B			Exeter - Loo - Newquay - Penzance	3Q52DB	TO	20:52	EXETER RIVERSIDE N.Y.	PENZANCE	05:14	UTU-T	RG
UTU210C			Exeter - Fowey - Parkandillack - Falmouth - Penzance	3Q52DC	TO	20:52	EXETER RIVERSIDE N.Y.	PENZANCE	06:19	UTU-T	RG
UTU011	8 - weekly	17/12/2021	High Wapping - Carlisle - Weaver Jn - Derby RTC	3Q54FC	FO	22:03	CARLISLE HIGH WAPPING SDGS	DERBY R.T.C.(NETWORK RAIL)	08:31	UTU-T	RG
UTU100	8 - weekly	20/12/2021	Derby - Grantham - Doncaster - Leeds - York - Neville Hill	3Q56SB	MO	21:08	DERBY R.T.C.(NETWORK RAIL)	YORK	03:15	UTU-T	RG
		21/12/2021		3Q57SB	TO	03:25	YORK	NEVILLE HILL T&R.S.M.D	04:34	UTU-R	RG
UTU101B	8 - weekly	15/04/2022	Neville Hill - Leeds - Doncaster - Swinton - Goole - Gilberdyke - Grantham - Derby	3Q57SC	FO	23:32	NEVILLE HILL T&R.S.M.D	DERBY R.T.C.(NETWORK RAIL)	07:54	UTU-T	RG
UTU101C	8 - weekly	23/12/2021	Neville Hill - Leeds - Swinton - Rawcliffe - Grantham - Derby	3Q57SD	FO	23:32	NEVILLE HILL T&R.S.M.D	DERBY R.T.C.(NETWORK RAIL)	07:54	UTU-T	RG
UTU101A	8 - weekly	18/02/2022	Neville Hill - Leeds - Doncaster - Swinton -	3Q57SE	FO	23:32	NEVILLE HILL T&R.S.M.D	DERBY R.T.C.(NETWORK	07:54	UTU-T	RG

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			Grantham - Derby					RAIL)			
UTU092A	8 - weekly	21/03/2022	Derby - Grantham - Doncaster - York - Longlands - Hartlepool - Heaton	3Q58SB	MO	21:08	DERBY R.T.C.(NETWORK RAIL)	HEATON T&R.S.M.D.	05:58	UTU- T	RG
UTU092B	8 - weekly	24/01/2022	Derby - Grantham - Doncaster - York - Longlands - Hartlepool - Newcastle - Heaton	3Q58SC	MO	21:08	DERBY R.T.C.(NETWORK RAIL)	HEATON T&R.S.M.D.	05:58	UTU- T	RG
UTU093A	8 - weekly	22/03/2022	Heaton - Newcastle - Longlands - York - Doncaster - Grantham - Derby	3Q59SB	TO	23:40	HEATON T&R.S.M.D.	DERBY R.T.C.(NETWORK RAIL)	08:00	UTU- T	RG
UTU093B	8 - weekly	25/01/2022	Heaton - Newcastle - Longlands - York - Doncaster - Grantham - Derby	3Q59SC	TO	23:40	HEATON T&R.S.M.D.	DERBY R.T.C.(NETWORK RAIL)	07:56	UTU- T	RG
UTU060A & UTU060B	8 - weekly	26/01/2022	Reading - Badminton - Cardiff - Bathampton - Westbury	3Q60SB	WO	22:42	READING TRIANGLE SIDINGS	WESTBURY UP T.C.	07:25	UTU- T	RG
UTU103	8 - weekly	18/01/2022	Cambridge - Liverpool St - Southend Victoria - Ferne Park	3Q61SB	TO	22:23	CAMBRIDGE T.&R.S.M.D.	FERME PARK RECP.	05:32	UTU- T	RG
UTU107	8 - weekly	21/01/2022	Colchester - Ipswich - Felixstowe - Liverpool Street - Derby	3Q66SB	FO	22:53	COLCHESTER RECEPTION LINE	DERBY R.T.C.(NETWORK RAIL)	08:16	UTU- T	RG
UTU067	8 - weekly	03/01/2022	Derby - WCML Rugby - Milton Keynes - Rugby	3Q68SB	MO	21:22	DERBY R.T.C.(NETWORK RAIL)	RUGBY DEPOT ACCESS LINE	05:52	UTU- T	RG
UTU106A	8 - weekly	20/01/2022	Colchester - Ipswich - Norwich - Harwich - Ipswich - Colchester	3Q69HC	ThO	22:28	COLCHESTER RECEPTION LINE	COLCHESTER RECEPTION LINE	05:20	UTU- T	RG
UTU106B	8 - weekly	12/05/2022	Colchester - Ipswich - Norwich - Ipswich - GE Loops - Colchester	3Q69HD	ThO	22:28	COLCHESTER RECEPTION LINE	COLCHESTER RECEPTION LINE	05:39	UTU- T	RG

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UTU068	8 - weekly	04/01/2022	Rugby - WCML Milton Keynes - Euston - Rugby	3Q69SB	TO	21:24	RUGBY DEPOT ACCESS LINE	RUGBY DEPOT ACCESS LINE	07:55	UTU-T	RG
UTU069	8 - weekly	05/01/2022	Rugby - WCML South Rugby - Lichfield - Derby	3Q70SD	WO	22:41	RUGBY DEPOT ACCESS LINE	DERBY R.T.C.(NETWORK RAIL)	07:30	UTU-T	RG
UTU105A	8 - weekly	16/03/2022	Ferme Park - Liverpool St - Cheshunt - Braintree - Clacton - Colchester	3Q70SE	WO	21:59	FERME PARK RECP.	COLCHESTER RECEPTION LINE	07:01	UTU-T	RG
UTU105B	8 - weekly	11/05/2022	Ferme Park - Liverpool St - Cheshunt - Sudbury - Colchester	3Q70SF	WO	21:59	FERME PARK RECP.	COLCHESTER RECEPTION LINE	06:00	UTU-T	RG
UTU105C	8 - weekly	19/01/2022	Ferme Park - Liverpool St - Cheshunt - Colchester Tn - Walton OTN - Colchester	3Q70SG	WO	21:59	FERME PARK RECP.	COLCHESTER RECEPTION LINE	06:13	UTU-T	RG
UTU070	8 - weekly	06/01/2022	Derby - WCML South - Lichfield - Crewe	3Q71SB	ThO	22:37	DERBY R.T.C.(NETWORK RAIL)	CREWE C.S. (L&NWR SITE)	06:37	UTU-T	RG
UTU010A	8 - weekly	16/12/2021	Mossend - Glasgow - Carlisle HW WCML Up Fast - Carlisle - High Wapping	3Q76LC	ThO	22:58	MOSSEND DOWN YARD	CARLISLE HIGH WAPPING SDGS	05:35	UTU-T	RG
UTU010B	8 - weekly	10/02/2022	Mossend - Arkleston - Gower St - Glasgow - Carlisle WCML UF - Carlisle - High Wapping	3Q76LD	ThO	22:30	MOSSEND DOWN YARD	CARLISLE HIGH WAPPING SDGS	05:35	UTU-T	RG
UTU010C	8 - weekly	07/04/2022	Mossend - Motherwell - Newton - Glasgow - Carlisle WCML UF - Carlisle - High Wapping	3Q76LS	ThO	22:30	MOSSEND DOWN YARD	CARLISLE HIGH WAPPING SDGS	05:36	UTU-T	RG
UTU087	8 - weekly	04/01/2022	Heaton - Newcastle - Edinburgh - Slateford	3Q81GS	TO	23:05	HEATON T&R.S.M.D.	SLATEFORD DEPOT	05:49	UTU-T	RG
UTU071	8 - weekly	07/01/2022	Crewe - Manchester Piccadilly - Crewe - Derby	3Q81SB	FO	23:48	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	06:16	UTU-T	RG

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UTU012A & UTU012B	8 - weekly	31/01/2022	Derby RTC - Leics - Castle Bromwich - Birmingham - Bristol High Level Shift operates in conjunction with UTU012B	3Z20DB	MO	21:22	DERBY R.T.C.(NETWORK RAIL)	BRISTOL HIGH LEVEL SIDING	05:13	UTU-T	RG
UTU013A	8 - weekly	01/04/2022	Bristol High Level - Birmingham - Castle Bromwich - Wigston - Derby RTC	3Z21DB	FO	22:09	BRISTOL HIGH LEVEL SIDING	DERBY R.T.C.(NETWORK RAIL)	05:45	UTU-T	PE
UTU013B	8 - weekly	04/02/2022	Bristol High Level - Birmingham - Wigston - Derby RTC	3Z21DC	FO	22:09	BRISTOL HIGH LEVEL SIDING	DERBY R.T.C.(NETWORK RAIL)	05:45	UTU-T	PE
UTU115	8 - weekly	01/02/2022	Bristol High Level - Exeter - Bristol - Cardiff Canton	3Z22DA	TO	23:37	BRISTOL HIGH LEVEL SIDING	CANTON PULLMANS	07:48	UTU-T	RG
UTU118	8 - weekly	03/02/2022	Cardiff Canton - Swansea - Bristol High Level	3Z33DA	ThO	23:59	CANTON PULLMANS	BRISTOL HIGH LEVEL SIDING	06:40	UTU-R	RG

Infrastructure Measurement services running at a frequency of less than 1 in 13 weeks.

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PLP337	as required	17/12/2021	Hither Green - Dollands Moor	1Q55CA	FO	11:09	HITHER GREEN P.A.D.	DOLLANDS MOOR SDGS	12:22	LD75	RG
PLP341B	as required	18/12/2021	Dollands Moor - Hastings - Eastbourne - Aldershot - Woking	1Q57BA	SO	11:18	DOLLANDS MOOR SDGS	WOKING UP C.H.S.	23:48	LD75	PE
TRV450	as required	17/12/2021	East London Line	1Q66BA	FO	22:48	TONBRIDGE WEST YARD	TONBRIDGE WEST YARD	06:39	LD75	RG
PLP346B	as required	16/12/2021	Woking - London - Orpington - Guildford - Dollands Moor	1Q68BA	ThO	17:44	WOKING UP YARD RECP.	LONDON CANNON STREET	05:04	LD75	PE
		17/12/2021		1Q68BB	FO	05:16	LONDON CANNON STREET	DOLLANDS MOOR SDGS	06:46	LD75	PE
PLP321B	as required	18/12/2021	Dollands Moor - Tonbridge West Yard	1Q89BA	SO	12:34	DOLLANDS MOOR SDGS	TONBRIDGE WEST YARD	13:25	LD75	RG
UTU/PLP Transit Path	as required	18/12/2021	Dollands Moor Sdgs – Derby RTC (via Barnes & MML) Transit	3M05BB	SO	10:52	DOLLANDS MOOR SDGS	DERBY R.T.C.(NETWORK RAIL)	17:57	UTU-T	RG
UTU/PLP Transit Path	as required	18/12/2021	Hither Green P.A.D - Derby RTC (via Barnes & MML) Transit	3M06BB	SO	12:08	HITHER GREEN P.A.D.	DERBY R.T.C.(NETWORK RAIL)	17:57	UTU-T	RG
UTU052	16 - weekly	22/12/2021	Eastleigh - Southampton - Weymouth - Southampton - Eastleigh	3Q02CB	WO	21:34	EASTLEIGH ARLINGTON (ZG)	EASTLEIGH ARLINGTON (ZG)	05:54	UTU-T	RG
UTU120	16 - weekly	17/01/2022	Derby - Stratford - Smethwick and Norton - Stone - Crewe	3Q02FA	MO	21:49	DERBY R.T.C.(NETWORK RAIL)	CREWE C.S. (L&NWR SITE)	06:28	UTU-T	RG
UTU054	16 - weekly	16/02/2022	Eastleigh - Brighton - Sussex Coast - Eastleigh	3Q03CB	WO	23:42	EASTLEIGH ARLINGTON (ZG)	EASTLEIGH ARLINGTON (ZG)	05:23	UTU-T	RG
UTU038	16 - weekly	15/12/2021	Hither Green - Hastings - Eastbourne - Brighton - Seaford - Newhaven - Keymer - Hither Green	3Q08BA	WO	21:26	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	06:18	UTU-T	PE
UTU140	16 - weekly	22/02/2022	Derby - Peterborough - Lincoln - Doncaster - Neville Hill	3Q10SB	TO	21:49	DERBY R.T.C.(NETWORK RAIL)	NEVILLE HILL T&R.S.M.D	04:57	UTU-T	RG

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UTU001S	16 - weekly	13/12/2021	Derby - Grantham Slows - Peterborough - Kings Cross - Hither Green	3Q11BA	MO	21:08	DERBY R.T.C.(NETWORK RAIL)	HITHER GREEN P.A.D.	07:44	UTU-T	PE
UTU141	16 - weekly	23/02/2022	Neville Hill - Doncaster - Lincoln - Peterborough - Derby	3Q11SB	WO	21:07	NEVILLE HILL T&R.S.M.D	DERBY R.T.C.(NETWORK RAIL)	05:08	UTU-T	RG
UTU001N	16 - weekly	18/12/2021	Hither Green - Copenhagen Jn - Peterborough - Grantham Slows - Derby	3Q12EA	SO	00:08	HITHER GREEN P.A.D.	DERBY R.T.C.(NETWORK RAIL)	07:54	UTU-T	PE
UTU155	24 - weekly	19/05/2022	Westbury - Frome - Dorchester - Frome - Thingley Jn - Westbury	3Q14SB	ThO	10:37	WESTBURY UP T.C.	WESTBURY UP T.C.	18:39	UTU-T	RG
UTU073	16 - weekly	15/12/2021	Carlisle HW - Gretna Jn - Kilmarnock - Mossend	3Q15LD	WO	01:56	CARLISLE HIGH WAPPING SDGS	MOSSEND DOWN YARD	09:18	UTU-T	RG
UTU005	16 - weekly	16/12/2021	Mossend - Clydesdale - Kilmarnock - Gretna Jn - High Wapping	3Q15LE	ThO	00:56	MOSSEND DOWN YARD	CARLISLE HIGH WAPPING SDGS	07:42	UTU-T	RG
UTU021	16 - weekly	07/02/2022	Derby - Dore - Manchester Airport - Leeds - Neville Hill	3Q18GA	MO	20:58	DERBY R.T.C.(NETWORK RAIL)	NEVILLE HILL T&R.S.M.D	05:50	UTU-T	RG
UTU119	24 - weekly	23/12/2021	Landore - Swansea - Central Wales - Derby	3Q19EA	FO	22:32	LANDORE T.M.D.	DERBY R.T.C.(NETWORK RAIL)	08:31	UTU-T	WA
UTU018	16 - weekly	13/12/2021	Derby - Leeds - Carlisle - High Wapping	3Q22FA	MO	22:15	DERBY R.T.C.(NETWORK RAIL)	CARLISLE HIGH WAPPING SDGS	06:23	UTU-T	RG
UTU173	16 - weekly	16/12/2021	Hither Green - Sutton - Littlehampton - Bognor - Barnham - Hither Green	3Q23BA	ThO	21:31	HITHER GREEN P.A.D.	HITHER GREEN P.A.D.	07:25	UTU-T	PE
UTU169	24 - weekly	30/03/2022	Cardiff - Ebbw Vale - Cardiff	3Q23DA	WO	21:36	CANTON PULLMANS	CANTON PULLMANS	06:48	UTU-T	RG

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UTU166	24 - weekly	02/02/2022	Cardiff - VOG - Tondy - Swansea - Cardiff	3Q23DB	WO	21:45	CANTON PULLMANS	CANTON PULLMANS	06:50	UTU-T	RG
UTU170	24 - weekly	25/05/2022	Cardiff - Radyr - Merthyr - Barry - Cardiff	3Q23DC	WO	21:45	CANTON PULLMANS	CANTON PULLMANS	06:47	UTU-T	RG
UTU014	16 - weekly	11/02/2022	Crewe - Blackpool - Manchester - Dore - Derby	3Q23EA	FO	21:56	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	06:30	UTU-T	RG
UTU096	16 - weekly	08/02/2022	Woking - Shepperton - Wimbledon Loop - London Bridge - Beckenham Jn - Hither Green	3Q24CA	TO	22:15	WOKING UP YARD RECP.	HITHER GREEN P.A.D.	06:05	UTU-T	PE
UTU066	16 - weekly	09/02/2022	Hither Green - Beckenham - Latchmere - Norwood - Epsom - Wimbledon - Alton - Woking	3Q25CA	WO	22:55	HITHER GREEN P.A.D.	WOKING UP YARD RECP.	06:04	UTU-T	RG
UTU126	16 - weekly	17/12/2021	Crewe - Liverpool - Manchester - Liverpool - Crewe	3Q26FA	ThO	20:24	CREWE C.S. (L&NWR SITE)	CREWE C.S. (L&NWR SITE)	06:12	UTU-T	RG
UTU128	16 - weekly	09/02/2022	Neville Hill - Leeds - Selby - Manchester - Preston - Crewe	3Q27FA	WO	23:02	NEVILLE HILL T&R.S.M.D	CREWE C.S. (L&NWR SITE)	05:26	UTU-T	RG
UTU063A	16 - weekly	10/02/2022	Woking - Willesden - Twickenham Loops - Reading	3Q28CA	ThO	22:13	WOKING UP YARD RECP.	READING TRIANGLE SIDINGS	04:52	UTU-T	RG
UTU091S	16 - weekly	07/02/2022	Derby - Birmingham - Worcester - Wolvercote - Reading - Virginia W - Woking	3Q29DA	MO	18:48	DERBY R.T.C.(NETWORK RAIL)	WOKING UP YARD RECP.	03:29	UTU-T	RG
UTU091N	16 - weekly	11/02/2022	Reading - Wolvercote - Worcester - Birmingham - Derby	3Q31GA	FO	20:15	READING TRIANGLE SIDINGS	DERBY R.T.C.(NETWORK RAIL)	03:48	UTU-T	PE

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UTU180	24 - weekly	30/03/2022	Mossend - Dumbarton - Craigendoran Jn - Oban	3Q31LA	WO	23:04	MOSSEND DOWN YARD	OBAN	04:59	UTU-T	RG
UTU019	24 - weekly	16/12/2021	High Wapping - Carlisle - Leeds - Drax - Derby RTC	3Q32GB	ThO	22:25	CARLISLE HIGH WAPPING SDGS	DERBY R.T.C.(NETWORK RAIL)	09:04	UTU-T	RG
UTU181	24 - weekly	31/03/2022	Oban - Crianlarich - Fort William	3Q32LA	ThO	21:28	OBAN	FORT WILLIAM J.YD TC	02:20	UTU-T	RG
UTU182	24 - weekly	01/04/2022	Fort William - Mallaig - Fort William	3Q33LA	FO	17:57	FORT WILLIAM J.YD TC	FORT WILLIAM J.YD TC	23:40	UTU-R	RG
UTU033	24 - weekly	24/02/2022	Derby - Ratcliffe - Corby - Leicester - Matlock - Derby	3Q33SB	ThO	20:53	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	05:11	UTU-T	RG
UTU195	24 - weekly	21/12/2022	Swansea - Milford Haven - Swansea	3Q34DA	WO	21:52	LANDORE T.M.D.	LANDORE T.M.D.	05:23	UTU-T	WA
UTU183	24 - weekly	05/04/2022	Fort William - Westerton - Shields - Mossend	3Q34LA	TO	20:43	FORT WILLIAM J.YD TC	MOSSEND DOWN YARD	04:55	UTU-T	RG
UTU172	24 - weekly	22/12/2021	Swansea - Pembroke - Fishguard - Camarthen - Cardiff - Swansea	3Q35DA	ThO	21:52	LANDORE T.M.D.	LANDORE T.M.D.	06:10	UTU-T	WA
UTU193	24 - weekly	19/04/2022	Derby - Coalville and North Staffs - Crewe	3Q36EB	TO	06:45	DERBY R.T.C.(NETWORK RAIL)	CREWE C.S. (L&NWR SITE)	16:17	UTU-T	RG
UTU201	24 - weekly	03/02/2022	Inverness - Kyle of Lochalsh - Inverness	3Q36SG	ThO	21:27	INVERNESS T.M.D.	INVERNESS T.M.D.	06:48	UTU-T	RG
UTU036	24 - weekly	13/01/2022	Machynlleth - Pwllheli - Shrewsbury	3Q37DA	FO	01:00	MACHYNLLETH CARR. SDGS	DERBY R.T.C.(NETWORK RAIL)	09:38	UTU-T	RG
UTU202	24 - weekly	26/05/2022	Inverness - Wick	3Q41LA	ThO	21:27	INVERNESS MILLBURN C.RAIL	WICK	05:00	UTU-T	RG

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UTU127	16 - weekly	08/02/2022	Neville Hill - Leeds - Carnforth - Leeds - Neville Hill	3Q42GB	TO	21:14	NEVILLE HILL T&R.S.M.D	CARNFORTH D&U.G.L.	00:23	UTU-T	RG
		09/02/2022		3Q43GB	WO	01:42	CARNFORTH D&U.G.L.	SELBY	05:13	UTU-R	RG
		09/02/2022		3Q44GB	WO	04:46	SELBY	NEVILLE HILL T&R.S.M.D	05:43	UTU-R	RG
UTU204	24 - weekly	27/05/2022	Wick - Thurso - Inverness	3Q42LA	FO	20:00	WICK	GEORGEMAS JN	21:30	UTU-R	RG
		27/05/2022		3Q43LA	FO	22:12	GEORGEMAS JN	INVERNESS MILLBURN C.RAIL	07:08	UTU-R	RG
UTU132	16 - weekly	02/03/2022	Slateford - Edinburgh - Aberdeen Clayhills	3Q45LB	WO	22:37	SLATEFORD DEPOT	ABERDEEN CLAYHILLS CAR.M.D	07:07	UTU-T	RG
UTU133	16 - weekly	03/03/2022	Aberdeen Clayhills - Edinburgh - Slateford	3Q46LB	ThO	22:40	ABERDEEN CLAYHILLS CAR.M.D	SLATEFORD DEPOT	05:30	UTU-T	RG
UTU130	16 - weekly	20/12/2021	Ferme Park - Hertford Loop - Shepreth Branch - Camden - Acton South - Ferme Park	3Q47HA	WO	00:17	FERME PARK RECP.	FERME PARK RECP.	07:22	UTU-T	PE
UTU158	16 - weekly	05/01/2022	Slateford - Edinburgh - Carstairs - Uddingston - Midcalder - Edinburgh - Slateford	3Q47LB	WO	21:37	SLATEFORD DEPOT	SLATEFORD DEPOT	05:56	UTU-T	RG
UTU129	16 - weekly	21/12/2021	Ferme Park - T and H Lines - Fenchurch St - Pitsea - Shoeburyness - Ferme Park	3Q48HA	WO	22:37	FERME PARK RECP.	FERME PARK RECP.	07:29	UTU-T	PE

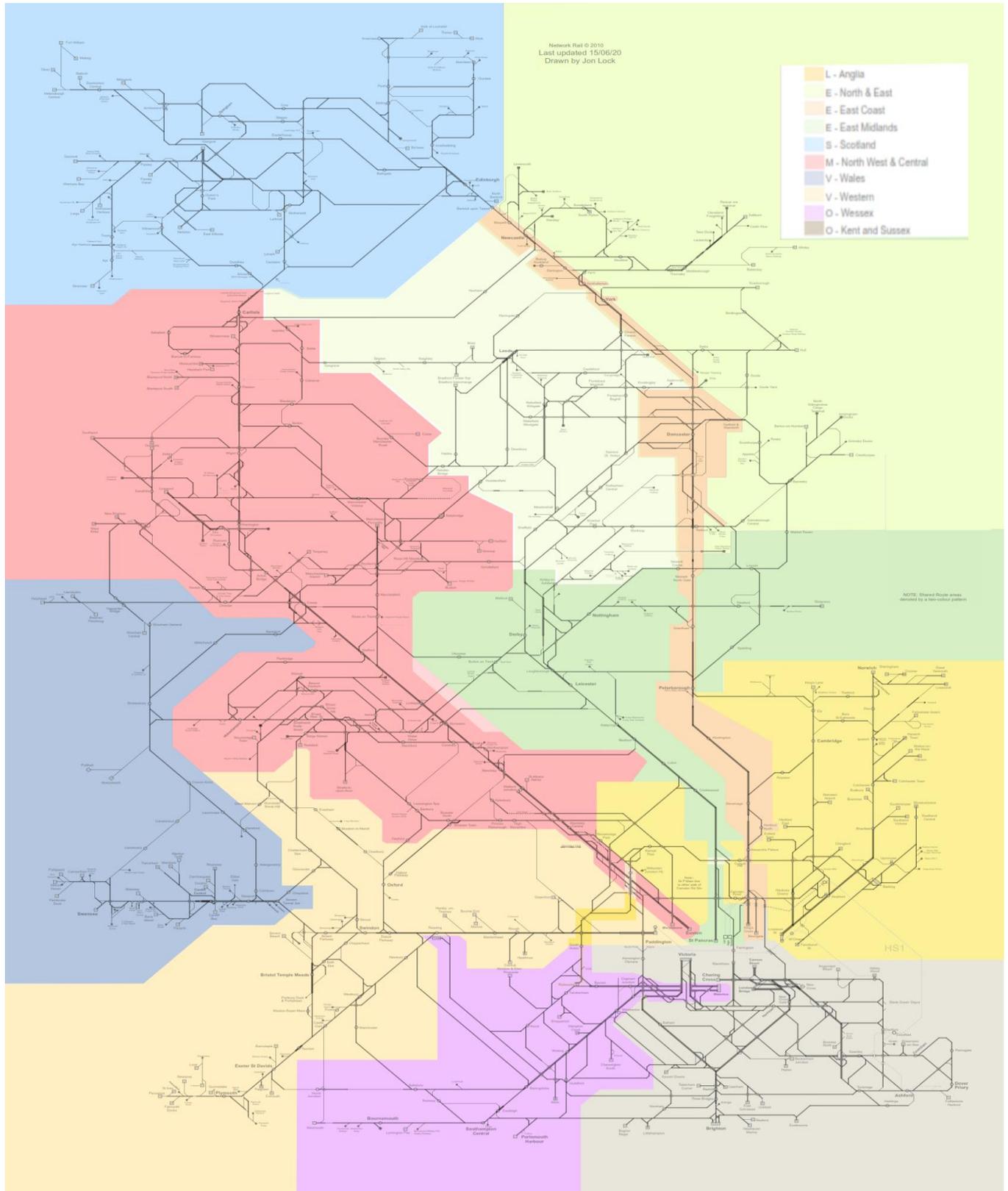
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UTU026	16 - weekly	22/12/2021	Ferme Park - Ockendon - North London Lines - Watford DCs - Ferme Park	3Q49HA	ThO	23:30	FERME PARK RECP.	FERME PARK RECP.	06:54	UTU-T	PE
UTU212A	24 - weekly	25/10/2022	Exeter - Penzance	3Q50DC	TO	23:02	EXETER RIVERSIDE N.Y.	PENZANCE	04:10	UTU-T	RG
UTU212B			Exeter - Penzance - St Ives - Penzance	3Q50DD	TO	23:02	EXETER RIVERSIDE N.Y.	PENZANCE	07:08	UTU-T	RG
UTU212C			Exeter - Falmouth - Penzance	3Q50DE	TO	23:02	EXETER RIVERSIDE N.Y.	PENZANCE	05:51	UTU-T	RG
UTU009	16 - weekly	07/01/2022	Slateford - Edinburgh - Glasgow - Edinburgh - Slateford	3Q50LB	FO	22:37	SLATEFORD DEPOT	SLATEFORD DEPOT	05:57	UTU-T	RG
UTU213	16 - weekly	19/01/2022	Penzance - Exeter	3Q51DC	WO	22:43	PENZANCE	EXETER RIVERSIDE N.Y.	03:55	UTU-R	RG
UTU134	16 - weekly	04/03/2022	Slateford - Edinburgh - Mossend - Edinburgh - Slateford	3Q51LA	FO	22:42	SLATEFORD DEPOT	SLATEFORD DEPOT	06:48	UTU-T	RG
UTU211A	24 - weekly	06/07/2022	Penzance - Gunnislake - Exeter	3Q53DA	WO	22:43	PENZANCE	EXETER RIVERSIDE N.Y.	05:10	UTU-T	RG
UTU211B			Penzance - Newquay - Loo - Exeter	3Q53DB	WO	20:48	PENZANCE	EXETER RIVERSIDE N.Y.	04:52	UTU-T	RG
UTU211C			Penzance - Parkandillack - Fowey - Exeter	3Q53DC	WO	22:43	PENZANCE	EXETER RIVERSIDE N.Y.	05:35	UTU-T	RG
UTU076	24 - weekly	07/02/2021	Inverness - Dundee - Mossend	3Q56LA	TO	00:44	INVERNESS T.M.D.	MOSSEND DOWN YARD	05:52	UTU-R	RG

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UTU089	24 - weekly	03/05/2022	Slateford - Ayr - Stranraer - Falkland	3Q62LA	SUN	11:10	SLATEFORD DEPOT	FALKLAND S.S.	20:10	UTU-T	RG
UTU145	16 - weekly	20/01/2022	Canton - Cardiff - Swindon - Gloucester - Severn Tunnel Jn - Cardiff	3Q64SB	ThO	10:20	CANTON PULLMANS	CANTON PULLMANS	18:34	UTU-T	RG
UTU175	16 - weekly	13/12/2021	Derby - Manton - Peterborough - Kings Lynn - Cambridge	3Q65HA	MO	19:25	DERBY R.T.C.(NETWORK RAIL)	CAMBRIDGE T.&R.S.M.D.	04:25	UTU-T	RG
UTU028	16 - weekly	14/12/2021	Cambridge - Norwich - Sheringham - Norwich	3Q67HA	TO	21:27	CAMBRIDGE T.&R.S.M.D.	NORWICH T.C.	04:57	UTU-T	RG
UTU131	16 - weekly	16/12/2021	Colchester - Ipswich - Cambridge - East Suffolk Line - Norwich - Thorpe Yard	3Q71HA	ThO	21:10	COLCHESTER RECEPTION LINE	NORWICH T.C.	06:09	UTU-T	RG
UTU231	16 - weekly	15/12/2021	Norwich - Yarmouth - Lowestoft - Colchester	3Q72HA	WO	20:55	NORWICH T.C.	COLCHESTER RECEPTION LINE	04:41	UTU-T	RG
UTU088	16 - weekly	15/12/2021	Mossend - Ayr Lines and Kilwinning - Largs - Mossend	3Q74LR	WO	21:52	MOSSEND DOWN YARD	MOSSEND DOWN YARD	06:46	UTU-T	RG
UTU027	16 - weekly	17/12/2021	Norwich - Chippenham Jn - Peterborough - Derby	3Q76HA	FO	21:22	NORWICH T.C.	DERBY R.T.C.(NETWORK RAIL)	06:16	UTU-T	RG
UTU171	24 - weekly	20/12/2021	Swansea - Margam - Tondur - Swansea Burrows - Cwmgrach - Onllwyn - Swansea	3Q78DA	TO	23:15	LANDORE T.M.D.	LANDORE T.M.D.	04:11	UTU-T	WA
UTU029	16 - weekly	18/01/2022	Crewe - Bangor	3Q82FA	TO	21:50	CREWE C.S. (L&NWR SITE)	BANGOR C.S.	04:51	UTU-T	RG

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UTU030	16 - weekly	19/01/2022	Bangor - Crewe - Newport - Cardiff Canton	3Q83FB	WO	21:29	BANGOR C.S.	CANTON PULLMANS	07:07	UTU-T	RG
UTU112	16 - weekly	20/01/2022	Canton - Cardiff - Newport - Crewe	3Q84FA	ThO	23:32	CANTON PULLMANS	CREWE C.S. (L&NWR SITE)	06:12	UTU-T	RG
UTU160	24 - weekly	02/02/2022	Crewe - Mersey Rail North - Crewe	3Q85EA	FO	23:02	CREWE C.S. (L&NWR SITE)	DERBY R.T.C.(NETWORK RAIL)	10:01	UTU-T	PE
UTU138	24 - weekly	24/01/2022	Derby - Skegness - Derby	3Q86EA	MO	07:43	DERBY R.T.C.(NETWORK RAIL)	DERBY R.T.C.(NETWORK RAIL)	15:55	UTU-T	RG
UTU162	24 - weekly	17/02/2022	Neville Hill - Leeds - Harrogate - Ilkley - Leeds - Neville Hill	3Q92SB	ThO	20:24	NEVILLE HILL T&R.S.M.D	KNARESBOROUGH	21:44	UTU-T	RG
		17/02/2022		3Q93SB	ThO	21:54	KNARESBOROUGH	BRADFORD FORSTER SQUARE	01:12	UTU-T	RG
		18/02/2022		3Q94SB	FO	01:22	BRADFORD FORSTER SQUARE	NEVILLE HILL T&R.S.M.D	02:32	UTU-R	RG
UTU177	24 - weekly	10/03/2022	Thrall Europa - Middlesbrough - Whitby - Neville Hill	3Q97SB	ThO	21:41	YORK THRALL EUROPA	NEVILLE HILL T&R.S.M.D	05:38	UTU-T	RG
PLP/UTU Fuel Run	as required	13/12/2021	Hither Green P.A.D – Hoo Junction UP Yard Fuel	3Y00BA	SX	08:57	HITHER GREEN P.A.D.	HOO JUNCTION UP YARD	10:16	UTU-T	RG
PLP/UTU Fuel Run	as required	13/12/2021	Hoo Junction UP Yard – Hither Green P.A.D	3Y01BA	SX	11:54	HOO JUNCTION UP YARD	HITHER GREEN P.A.D.	13:04	UTU-T	RG
UTU/PLP Transit Path	as required	13/12/2021	Derby RTC – Midland Main Line - West London Line - Hither Green P.A.D	3Z03BA	SX	10:14	DERBY R.T.C.(NETWORK RAIL)	HITHER GREEN P.A.D.	16:39	UTU-T	RG
UTU Fuel/Water Run	as required	14/12/2021	Exeter Refuelling Shift	3Z03DC	TWO	10:15	EXETER RIVERSIDE N.Y.	EXETER RIVERSIDE N.Y.	12:39	UTU-T	RG

Name	Frequency	Start Date	Route	TID	Day	Dep.	From	To	Arr.	Model Train	TOC
<p>Any Train Running Enquiries please E-MAIL DCS, Stating the TIMETABLE or STP Week / Full 6 figure Headcode /Departure TIME / Origin /Destination in the subject heading. Email address: DCSIMPlanningTeam@networkrail.co.uk</p>											
<p><i>The following paths may appear in the WTT, however where they clash with a FOC/TOC service, solutions will be identified to resolve the conflict. These solutions will then appear as traffic remarks in the DPPP for the relevant days that the Infrastructure Measurement train is planned to run (other amended plan changes permitting).</i></p>											
UTU Calibration Runs	as required	13/12/2021	Cals High Marnham	3Z10ED	SX	05:32	DERBY R.T.C.(NETWORK RAIL)	HIGH MARNHAM POWERGEN	07:41	UTU-T	RG
UTU Calibration Runs	as required	13/12/2021	Cals High Marnham	3Z11ED	SX	15:00	HIGH MARNHAM POWERGEN	DERBY R.T.C.(NETWORK RAIL)	17:17	UTU-T	RG

Appendix J - Freight Headcode Designations



Appendix H – Dwell Time Methodology Guide

Introduction

- This guide has been designed to accompany the rounding methodology for Station Dwells contained in Section 1.3 of the National Timetable Planning Rules
- The guide has been split into two key topics:
 - Data
 - Consultation

This guide provides advice on how to use data and best practice for consultation when carrying out a station dwell review

- Normally, the starting point for a station dwell investigation will be performance data that suggests that a dwell is currently not being met. This data should prompt further investigation to understand why this result is being shown.
- As expertise for the various solutions sit in multiple areas; a three-pronged approach should be taken for the review involving; NR Capacity Planning, the Operator and NR Route Performance.
- Working together will also ensure that the reviews are more effective and shared objectives are agreed upfront. More details on collaboration are provided in the consultation section of this guide.
- Only when it is known **why** a data source is returning the result, can the best solution be reached to increase dwell adherence, or the performance data can be knowledgably discounted.
- If new or, alternative rolling stock is introduced to a Line of Route then the standard values should be reviewed, and any new values required should be published in the relevant route Timetable Planning Rules.
- There are many solutions to improving dwell adherence such as, but not exclusive to:
 - Operational changes – including the dispatch process
 - Changing the berth offsets¹
 - Amending other TPR values, such as SRTs
 - Re-balancing dwells across a line of route
 - Increasing the planned dwell

Data

- Gathering information from differing data sources will start to build a picture of what is happening during a station dwell. Each data source will need to be assessed for its suitability for providing valid information to a station dwell review.

¹ Berth offset values adjust time at signal to time at TIPLOC and are used in SMART, ODA, and Quartz data. Each station will have two offsets – a **departure** offset which is a number of seconds taken for a train to reach the signal beyond a location, and an **arrival** offset which is a number of seconds taken for a train to arrive at a location after passing the signal before the location.

The value is calculated as an average of all services passing that point during the period of observations. As the value is an average, there are a number of variables that can affect the figure, most of which apply to the different mix of traffic using a location:

- Different traction types – different traction types have different maximum speeds, rates of braking and acceleration.
- Mix of stopping and passing services.
- Mix of passenger and freight services.
- Variations in driver behaviour.
- Different lengths of trains.

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- The most common sources of data used in a station dwell review are listed in the table below, with pros and cons. GPS/OTMR data provides the most reliable wheels stop to wheels start time for large sample sizes, but other data sources also have pros that should be considered when completing a review of dwell performance.

Data Source	Who owns the data?	Where is the feed from?	Pros	Cons
SMART and ODA data	NR Capacity Planning	Signal berths	<ul style="list-style-type: none"> High sample sizes Covers a wide geographical area Analysis can be filtered to a very granular level Early arrivals can be removed or default to planned WTT arrival time 90% of locations are covered by signal berth data 	<ul style="list-style-type: none"> Reliant on the use of berth offsets Train length sometimes not known Characteristics on the day not recorded External factors such as engineering blocks need cross-referencing For ODA data there is a lag of 6-12 weeks before data is uploaded into the tool
QUARTZ data	Amey Consulting own the programme. NR supply the timing data and NR/Operator station staff can make interventions	Signal berths	<ul style="list-style-type: none"> Station staff can comment on individual times. Provides insight into an overall journey – can demonstrate a ripple effect Shows perceived trends – worst performing trains, worst performing hours, worst delay by day, etc . . . 	<ul style="list-style-type: none"> Uses berth offsets to provide a dwell value Classes dwell adherence as within 20-seconds Data gets archived after a set period
GPS & OTMR data	Operators	GPS on train	<ul style="list-style-type: none"> High sample sizes Does not rely on berth offset averages Analysis can be filtered to a very granular level Early arrivals can be removed 	<ul style="list-style-type: none"> Relies on GPS accuracy Accessibility – can require download from individual units
Live observations	N/A	Station	<ul style="list-style-type: none"> Provides a rounded view of the dispatch process Provides insight into why a data source is returning a particular result Can check accuracy of berth offsets 	<ul style="list-style-type: none"> Low sample sizes Manual process introduces variance

- Data from any source should be cleansed to make sure it only includes data relevant to passenger train timings, including the relevant timing loads and stopping patterns.
- If a data source uses berth offsets, then the berth offset should be validated for accuracy before any other changes to the station dwell are proposed.
- Data may need to be narrowed down to build a fuller picture of where the source issue is with dwell adherence. Dwell time variances can exist for certain types of day, direction of travel, or day of the week. Details of the main variances are included in 1.1.3 of the associated rounding methodology.

- Equally, to find the root cause of a poor performing station dwell it may be necessary to broaden the data analysis. A poor performing dwell could be linked to incorrect SRTs on a line of route, or, over-dwelling due to waiting for a path at a proceeding junction. This, together with the cumulative rounding stipulated in the rounding methodology supports a holistic review of TPR values and performance information, rather than looking at single dwells in isolation.

Consultation

Consulting means relevant persons are kept informed on plans and progress. To effectively consult a station dwell review, the following activities should be completed:

- The data that is used to prompt the review should be shared with all impacted parties.
- Any supporting or contradicting data that is held by the affected parties should be shared to provide comparison. The data sources that are used for the review are agreed.
- A project plan with dates for reviewing and making decisions should be agreed.
- Progress is reported against the plan as an agenda item at relevant route TPR forums.
- Any decision that is made should be issued accompanied with supporting data and reasoning.
- Any decisions that are made should be cognisant of how the change will be implemented, and an implementation plan will be made with affected Operators (this could include phased implementation).

The process flow chart on the next page provides a high-level summary of the activities that should take place during a station dwell review

