

Examples of consequential and radiating delays

On Day 13 of the inquiry Mr Kenning was asked whether he had any specific examples of where a level crossing contained within the order have given rise to delays in the train service, and if there had been any ripple effect on the wider network. The question was asked, specifically, in the context of E38 Battlesbridge.

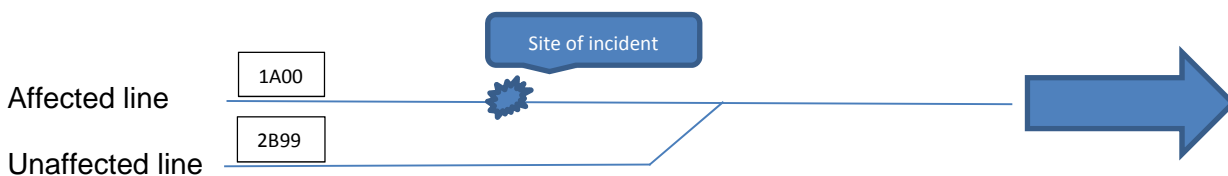
On investigating this Mr Kenning turned up an incident that occurred at E15 Margaretting level crossing on the 10th October 2018, which he explained at inquiry on Day 32 when that crossing was being considered. He was able to explain the ripple effect resulting from a fault attributed to equipment associated with the MSL at E15 Margaretting by reference to TRUST¹ Train Delay sheets relating to that incident. It was suggested that it would be helpful if he could provide a covering note to be read alongside that document, for the benefit of parties or members of the public who had not been at the inquiry when it was explained, and that explanation is set out in this Note.

Before looking at the detail, it would be best to first explain how trains are identified on the rail network.

Each train that runs on the rail network is identified by an alpha numeric code made up of four digits, the first being number, then letter, then sequential number (eg. 01, 02). An example being 4L91.

Whilst some trains will be delayed by the direct effect on an incident / failure, other trains are delayed by effect of the delayed trains. In this instance, the delay could be loss of then trains normal path (code YB) and there would be a responsible train for this delay (as it had taken the normal path).

Considering a simple situation;



An example of this would be train 1A00 is delayed at a level crossing, and then continuing its journey it runs late through a junction (where two lines join). As train 1A00 is running late it takes the allocated train path of train 2B99 (which was running on a line not affected), and therefore train 2B99 is delayed because of 1A00 (and not directly as a result of the original delay at the level crossing).

Mr Kenning's explanation is set out below;

Explanation of the marking up of the following sheets;

I have followed two train that were delayed by the failure attributed to the MSL failure at E15 and the onward delays caused by those trains. In demonstrating the effect of each delay, I have identified the last train affected by the train which was delayed at the level crossing (the outside of the ripple) – marked by the number '1' below - and worked backwards towards the cause of the original delay – marked by the number '6' below.

The first train I have marked is 4L91 (page 3). Although this train started from Trafford Park freightliner depot Manchester at 02:10 it was delayed (3 minutes) by loss of path (code YB) by train 1P14,

¹ TRUST – Train Running System. A computer system that monitors the running of all trains on the network and is used for (amongst other things) tracking train delays.

between Stratford and Forest Gate junction. I have added a red 1 in the righthand margin to aid following the ripples. Turning to the next train in that series - red 2 in the right margin (on page 6) - this train 1P14 was delayed 44 minutes at Liverpool Street station due to late arrival of inward stock (code YI) by the late arrival of 1P11. Turning to the next train in that series – marked by the red 3 on page 4 in the right margin – this train, 1P11, was delayed 24 minutes by 1Y09 due to loss of path (code YD). Turning to the next train in this series – marked by the red 4 in the margin on page 4– this train, 1Y09, was delayed 6 minutes by 1P07 (code YD). Turning to the next train in this series – marked by the red 5 in the margin on page 4 – this train, 1P07, was delayed 35 minutes with no responsible train (i.e. it was as a direct effect of the incident (signalling equipment failure associated with Margareting level crossing)).

I have also identified a second series of delays resulting from the failure at E15. This series is marked by green numbering. This series (which is in the same order as the red series I have described above) 'starts' with train 4L41 (highlighted with purple and marked '1' in green on page 3) and works back to train 1P15 (highlighted purple and marked '6' in green on page 4).

The original failure happened at approximately 06:00 in the morning and, as can be seen on page 10, delays were still occurring at almost 16:00 in the afternoon. It can also be seen from the TRUST Train Delay that the delays extended beyond Anglia Route and were affecting services on the West Coast mainline (page 9 (2T26 (10 lines up from the bottom), and trains at Clapham.

Margaretting FPWM crossing, 10.10.2018, level crossing equipment failure affecting signalling of trains

Trains directly delayed (9 part cancellations, 53 delayed total 795mins) show nothing in "Resp Train" column in delay summary below.

Trains delayed in reaction (103 trains delay total 1010mins) are noted below with codes under "Resp train" including

- 'YB' for lost path regulated for another later train
- 'YD' for lost path following another later train
- 'YE' waiting to/from single line
- 'YI' late arrival of booked inward stock.

The area and range of services affected is extensive, passenger and freight trains.

Incident : 427360 CHM-INT L730 SIG FLR Created on: 10/10/18

| Train | Oper | Section affected | Delay | Status | Resp Train | |
|-----------------|--------------|---------------------|-------|--------|---|---|
| 10/10 4L91 0210 | TRAFFPFLT DB | STRATFORD-FORESTGTJ | 003 | *** | YB 521P14ME10 | 1 |
| | | | | | <ul style="list-style-type: none"> • Class 4 75mph train, containers to Anglia 'L', in this case destination Felixstowe | |
| 10/10 1P01 0455 | NORWICH EB | CHELMSFRD-SHENFIELD | 005 | *** | | |
| | | | | | <ul style="list-style-type: none"> • Passenger train, London to/from and within Norwich area | |
| 10/10 1Y01 0512 | IPSWICH EB | CHELMSFRD-SHENFIELD | 007 | *** | | |
| | | | | | <ul style="list-style-type: none"> • Passenger train, London to/from Ipswich area | |
| 10/10 1F01 0512 | COLCHESTR EB | CHELMSFRD-SHENFIELD | 005 | *** | | |
| | | BOW JUNCT-BETHNALGN | 003 | *** | YC 523F63M610 | |
| | | | | | <ul style="list-style-type: none"> • Passenger train, London to/from and within Colchester area incl Braintree, Colchester | |
| 10/10 1N01 0520 | CLACTONOS EB | CHELMSFRD-SHENFIELD | 005 | *** | | |
| | | | | | <ul style="list-style-type: none"> • Passenger train, to/from and within Clacton/Walton area | |
| 10/10 1P03 0525 | NORWICH EB | CHELMSFRD-SHENFIELD | 008 | *** | | |
| 10/10 1N03 0540 | CLACTONOS EB | CHELMSFRD-SHENFIELD | 004 | *** | | |
| 10/10 1Y99 0600 | IPSWICH EB | CHELMSFRD-SHENFIELD | 006 | *** | | |
| 10/10 4L41 0604 | BASFDHALL DB | CAMDEN RD | 003 | *** | YB 522Y44MH10 | 1 |
| 10/10 1N07 0610 | CLACTONOS EB | CHELMSFRD-SHENFIELD | 011 | *** | | |
| 10/10 1F05 0618 | WITHAM EB | CHELMSFRD-SHENFIELD | 004 | *** | | |
| 10/10 1F07 0619 | COLCHTOWN EB | CHELMSFRD-SHENFIELD | 007 | *** | | |

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|-------|------|------|-----------|----|---------------------|-----|------|-----|------------|--|---|
| 10/10 | 1P07 | 0622 | NORWICH | EB | CHELMSFRD-SHENFIELD | 035 | *** | | | | 5 |
| 10/10 | 1P04 | 0625 | LIVERPLST | EB | BOW JUNCT-STRATFORD | 005 | *** | YO | 491Y01M510 | | |
| 10/10 | 1Y03 | 0629 | IPSWICH | EB | CHELMSFRD-SHENFIELD | 012 | *** | | | | |
| 10/10 | 3F13 | 0632 | LIVERPLST | EB | SHENFIELD-CHELMSFRD | 006 | *** | YD | 521P04M610 | | |
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| 10/10 | 1A04 | 0638 | LIVERPLST | EB | SHENFIELD-CHELMSFRD | 003 | *** | YD | 523F13M610 | | |
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| 10/10 | 1F09 | 0640 | BRAINTREE | EB | CHELMSFRD-SHENFIELD | 012 | *** | | | | |
| 10/10 | 1P11 | 0645 | NORWICH | EB | WITHAM -CHELMSFRD | 024 | *** | YD | 491Y09MA10 | | 3 |
| | | | | | CHELMSFRD-SHENFIELD | 021 | *** | | | | |
| 10/10 | 1F91 | 0647 | COLCHTOWN | EB | FORESTGTJ-STRATFORD | 003 | *** | YC | 501J05M610 | | |
| 10/10 | 1P13 | 0703 | NORWICH | EB | WITHAM -CHELMSFRD | 021 | *** | YD | 491Y07MB10 | | |
| | | | | | CHELMSFRD-SHENFIELD | 027 | *** | | | | |
| 10/10 | 1Y09 | 0703 | STOWMARKT | EB | WITHAM -CHELMSFRD | 006 | *** | YD | 481P07M610 | | 4 |
| | | | | | CHELMSFRD-SHENFIELD | 034 | *** | YD | 481P07M610 | | |
| 10/10 | 1N15 | 0705 | CLACTONOS | EB | CHELMSFRD-SHENFIELD | 035 | *** | | | | |
| 10/10 | 1A95 | 0715 | HARWCHINT | EB | WITHAM -CHELMSFRD | 022 | *** | YD | 481P11M610 | | |
| | | | | | CHELMSFRD-SHENFIELD | 023 | *** | | | | |
| 10/10 | 1A17 | 0716 | HARWICH T | EB | CHELMSFRD-SHENFIELD | 025 | *** | YC | 491A95MA10 | | |
| 10/10 | 1F17 | 0726 | BRAINTREE | EB | CHELMSFRD-SHENFIELD | 034 | *** | | | | |
| 10/10 | 1Y07 | 0738 | IPSWICH | EB | CHELMSFRD-LIVERPLST | Pt | cnc1 | *** | | | |
| 10/10 | 4M94 | 0739 | FELIXNFLT | DB | MANINGTRE-COLCHESTR | 007 | *** | YB | 491Y17MC10 | | 3 |
| | | | | | CHELMSFRD-SHENFIELD | 021 | *** | | | | |
| 10/10 | 1P15 | 0740 | NORWICH | EB | COLCHESTR-LIVERPLST | Pt | cnc1 | *** | | | 6 |
| | | | | | MANINGTRE-COLCHESTR | 015 | *** | | | | |
| 10/10 | 1F10 | 0746 | LIVERPLST | EB | LIVERPLST | 007 | *** | YI | 501N07M610 | | |
| 10/10 | 1F15 | 0749 | CHELMSFRD | EB | CHELMSFRD-SHENFIELD | 035 | *** | | | | |
| 10/10 | 1P10 | 0755 | LIVERPLST | EB | SHENFIELD-CHELMSFRD | 006 | *** | YD | 521F10MB10 | | |
| 10/10 | 1A27 | 0758 | HARWICH T | EB | COLCHESTR | 018 | *** | YB | 481P15MB10 | | 5 |
| | | | | | CHELMSFRD-SHENFIELD | 008 | *** | | | | |
| | | | | | MARKS TEY-WITHAM | 004 | *** | YM | 501F25MC10 | | |

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| 10/10 | 1P19 | 0800 | NORWICH | EB | CHELMSFRD-SHENFIELD | 011 | *** | | |
| | | | | | MARKS TEY-WITHAM | 003 | *** | YC | 494M94CB10 |
| | | | | | MANINGTRE-COLCHESTR | 006 | *** | YD | 494M94CB10 |
| 10/10 | 1F25 | 0800 | COLCHTOWN | EB | COLCHESTR-LIVERPLST | Pt | cncl | *** | |
| 10/10 | 1Y98 | 0801 | LIVERPLST | EB | LIVERPLST | 004 | *** | YI | 491Y03M610 |
| | | | | | STRATFORD | 003 | *** | YC | 521K16MB10 |
| 10/10 | 1K35 | 0803 | STHENDVIC | EB | SHENFIELD-GIDEAPARK | 003 | *** | YB | 501F17MA10 |
| | | | | | • Passenger train, London to/from Southend Victoria | | | | |
| 10/10 | 1Y08 | 0806 | LIVERPLST | EB | SHENFIELD-CHELMSFRD | 005 | *** | YD | 525N20MC10 |
| | | | | | BOW JUNCT-STRATFORD | 003 | *** | YD | 525N20MC10 |
| | | | | | COLCHESTR | 003 | *** | | |
| 10/10 | 5N20 | 0808 | LIVERPLST | EB | SHENFIELD-CHELMSFRD | 009 | *** | YB | 491Y07MB10 |
| | | | | | BOW JUNCT-STRATFORD | 004 | *** | YD | 521Y98MC10 |
| | | | | | • ECS not especially path critical as a class 3 | | | | |
| 10/10 | 1Y17 | 0811 | STOWMARKT | EB | MANINGTRE-COLCHESTR | 014 | *** | YO | 491A27MB10 |
| | | | | | CHELMSFRD-SHENFIELD | 008 | *** | | |
| | | | | | WITHAM -CHELMSFRD | 003 | *** | YD | 491A27MB10 |
| | | | | | MARKS TEY-WITHAM | 007 | *** | YD | 491A27MB10 |
| 10/10 | 1N29 | 0811 | CLACTONOS | EB | COLCHESTR-LIVERPLST | Pt | cncl | *** | |
| 10/10 | 1F23 | 0812 | BRAINTREE | EB | CHELMSFRD | 003 | *** | YD | 481P13MA10 |
| | | | | | WITHAM -CHELMSFRD | 012 | *** | YD | 481P13MA10 |
| | | | | | CHELMSFRD-SHENFIELD | 026 | *** | | |
| 10/10 | 2K37 | 0812 | STHENDVIC | EB | SHENFIELD-GIDEAPARK | 003 | *** | YB | 481P07M610 |
| 10/10 | 1P21 | 0830 | NORWICH | EB | NORWICH -TROWSE JN | 004 | *** | YE | 521P04M610 |
| | | | | | CHELMSFRD-SHENFIELD | 006 | *** | | |
| 10/10 | 1F12 | 0838 | WITHAM | EB | MARKS TEY-COLCHESTR | 003 | *** | YO | 521P10MB10 |
| | | | | | WITHAM | 007 | *** | YI | 521F10MB10 |
| 10/10 | 5M08 | 0840 | LIVERPLST | EB | LIVERPLST | 026 | *** | YI | 501F15MB10 |
| 10/10 | 5M10 | 0842 | LIVERPLST | EB | LIVERPLST | 028 | *** | YG | 501F17MA10 |
| 10/10 | 5V10 | 0847 | LIVERPLST | EB | LIVERPLST | 038 | *** | YI | 491Y09MA10 |
| 10/10 | 5M14 | 0850 | LIVERPLST | EB | LIVERPLST | 027 | *** | YI | 501N15MA10 |

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| 10/10 | 1Y33 | 0858 | IPSWICH | EB | CHELMSFRD-SHENFIELD | 003 | *** | | |
| | | | | | MARKS TEY-WITHAM | 004 | *** | YD | 501F33MD10 |
| | | | | | WITHAM -CHELMSFRD | 006 | *** | YD | 494M94CB10 |
| 10/10 | 1F33 | 0858 | COLCHTOWN | EB | COLCHESTR | 006 | *** | YB | 481P19MC10 |
| | | | | | CHELMSFRD-SHENFIELD | 017 | *** | | |
| | | | | | FORESTGTJ-STRATFORD | 003 | *** | YD | 494M94CB10 |
| 10/10 | 1P23 | 0900 | NORWICH | EB | CHELMSFRD-SHENFIELD | 007 | *** | YD | 491Y31MF10 |
| 10/10 | 1F31 | 0900 | BRAINTREE | EB | BRAINTREE | 003 | *** | YG | 521F10MB10 |
| | | | | | WITHAM | 004 | *** | YB | 481P19MC10 |
| | | | | | CHELMSFRD-SHENFIELD | 015 | *** | | |
| 10/10 | 1P14 | 0900 | LIVERPLST | EB | LIVERPLST | 044 | *** | YI | 481P11M610 |
| | | | | | GIDEAPARK-SHENFIELD | 004 | *** | YA | 481P21MD10 |
| 10/10 | 3S60 | 0901 | STOWMKDGL | XH | STOWMKDGL | 003 | *** | YB | 481P21MD10 |
| | | | | | WITHAM | 113 | *** | | |
| | | | | | CHELMSFRD-SHENFIELD | 009 | *** | | |
| | | | | | MARKS TEY-COLCHESTR | 003 | *** | YC | 521Y20MO10 |
| <ul style="list-style-type: none"> • The RHTT | | | | | | | | | |
| 10/10 | 1N31 | 0905 | CLACTONOS | EB | CHELMSFRD-SHENFIELD | 015 | *** | | |
| | | | | | COLCHESTR | 005 | *** | YB | 481P21MD10 |
| 10/10 | 5V16 | 0907 | LIVERPLST | EB | LIVERPLST | 044 | *** | YI | 491A17MA10 |
| <ul style="list-style-type: none"> • ECS to Ilford Depot | | | | | | | | | |
| 10/10 | 5M20 | 0910 | LIVERPLST | EB | LIVERPLST | 036 | *** | YI | 491A95MA10 |
| <ul style="list-style-type: none"> • ECS to Temple Mills sidings | | | | | | | | | |
| 10/10 | 4M63 | 0912 | FELIXNFLT | DB | CHELMSFRD-SHENFIELD | 015 | *** | | |
| 10/10 | 2F20 | 0914 | COLCHESTR | EB | COLCHESTR | 007 | *** | YI | 525N20MC10 |
| 10/10 | 2D72 | 0917 | IPSWICH | EB | IPSWICH | 003 | *** | YL | 521P10MB10 |
| <ul style="list-style-type: none"> • Ipswich to/from Lowestoft | | | | | | | | | |
| 10/10 | 1N16 | 0918 | LIVERPLST | EB | LIVERPLST-COLCHESTR Pt | cnc1 | *** | | |
| 10/10 | 3S01 | 0922 | STOWMKDGL | XH | STOWMKDGL | 006 | *** | YA | 521P10MB10 |
| 10/10 | 5V24 | 0927 | LIVERPLST | EB | LIVERPLST | 034 | *** | YI | 501F23MC10 |
| 10/10 | 1P25 | 0930 | NORWICH | EB | CHELMSFRD-SHENFIELD | 010 | *** | | |

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|-------|------|------|-----------|----|---------------------|-----|------|---|
| 10/10 | 1Y31 | 0930 | IPSWICH | EB | CHELMSFRD-SHENFIELD | 009 | *** | |
| | | | | | GIDEAPARK-ILFORD | 003 | *** | YD 502F21MF10 |
| 10/10 | 5Y08 | 0930 | IPSWICH | EB | IPSWICH | 012 | *** | YI 521Y08MC10 |
| 10/10 | 1K45 | 0930 | STHENDVIC | EB | SHENFIELD-GIDEAPARK | 004 | *** | YD 481P21MD10 |
| 10/10 | 1P16 | 0930 | LIVERPLST | EB | LIVERPLST | 031 | *** | YI 481P13MA10 |
| | | | | | SHENFIELD-CHELMSFRD | 007 | *** | YC 505F90MG10 |
| 10/10 | 4M88 | 0932 | FELIXNFLT | DB | CHELMSFRD-SHENFIELD | 016 | *** | |
| | | | | | FORESTGTJ-STRATFORD | 006 | *** | YA 521K44ML10 |
| | | | | | MANINGTRE-COLCHESTR | 003 | *** | YB 501N35MI10 |
| 10/10 | 2F21 | 0935 | COLCHTOWN | EB | CHELMSFRD-SHENFIELD | 012 | *** | |
| | | | | | FORESTGTJ-STRATFORD | 003 | *** | YA 522W60MH10 |
| 10/10 | 6O79 | 0938 | MARKSTEY | WA | CHELMSFRD-SHENFIELD | 011 | *** | |
| | | | | | | | | • Class 60 60mph maximum freight to former Southern region |
| 10/10 | 2W57 | 0944 | SHENFIELD | EX | FORESTGTJ-STRATFORD | 003 | *** | YB 501F31ME10 |
| | | | | | | | | • Passenger train, London to/from Shenfield |
| 10/10 | 1F18 | 0948 | LIVERPLST | EB | GIDEAPARK-SHENFIELD | 003 | *** | YD 334L912210 |
| 10/10 | 9P14 | 0950 | COLCHESTR | EB | COLCHESTR | 007 | *** | YA 491Y31MF10 |
| | | | | | | | | • In this case a passenger train with a short notice fresh schedule |
| 10/10 | 1Y35 | 0953 | IPSWICH | EB | CHELMSFRD-SHENFIELD | 011 | *** | |
| 10/10 | 1P27 | 1000 | NORWICH | EB | CHELMSFRD-SHENFIELD | 006 | *** | |
| 10/10 | 1F37 | 1000 | BRAINTREE | EB | CHELMSFRD-SHENFIELD | 007 | *** | |
| 10/10 | 1P18 | 1000 | LIVERPLST | EB | LIVERPLST-COLCHESTR | Pt | cnc1 | *** |
| 10/10 | 1Y12 | 1002 | LIVERPLST | EB | COLCHESTR-IPSWICH | Pt | cnc1 | *** |
| | | | | | LIVERPLST | 029 | *** | YI 501F31ME10 |
| | | | | | SHENFIELD-CHELMSFRD | 003 | *** | YO 521P20MH10 |
| | | | | | MARKS TEY-COLCHESTR | 005 | *** | YA 481P29MH10 |
| 10/10 | 1N33 | 1005 | CLACTONOS | EB | CHELMSFRD-SHENFIELD | 013 | *** | |
| | | | | | FORESTGTJ-STRATFORD | 004 | *** | YC 506V12CH10 |
| 10/10 | 2D77 | 1007 | LOWESTOFT | EB | LOWESTOFT-SAXMUNDHM | 004 | *** | YC 492D72ME10 |
| 10/10 | 5F90 | 1010 | ILFORDEMD | EB | SHENFIELD-CHELMSFRD | 007 | *** | |
| 10/10 | 2O20 | 1012 | LIVERPLST | EB | LIVERPLST | 003 | *** | YB 481P19MC10 |

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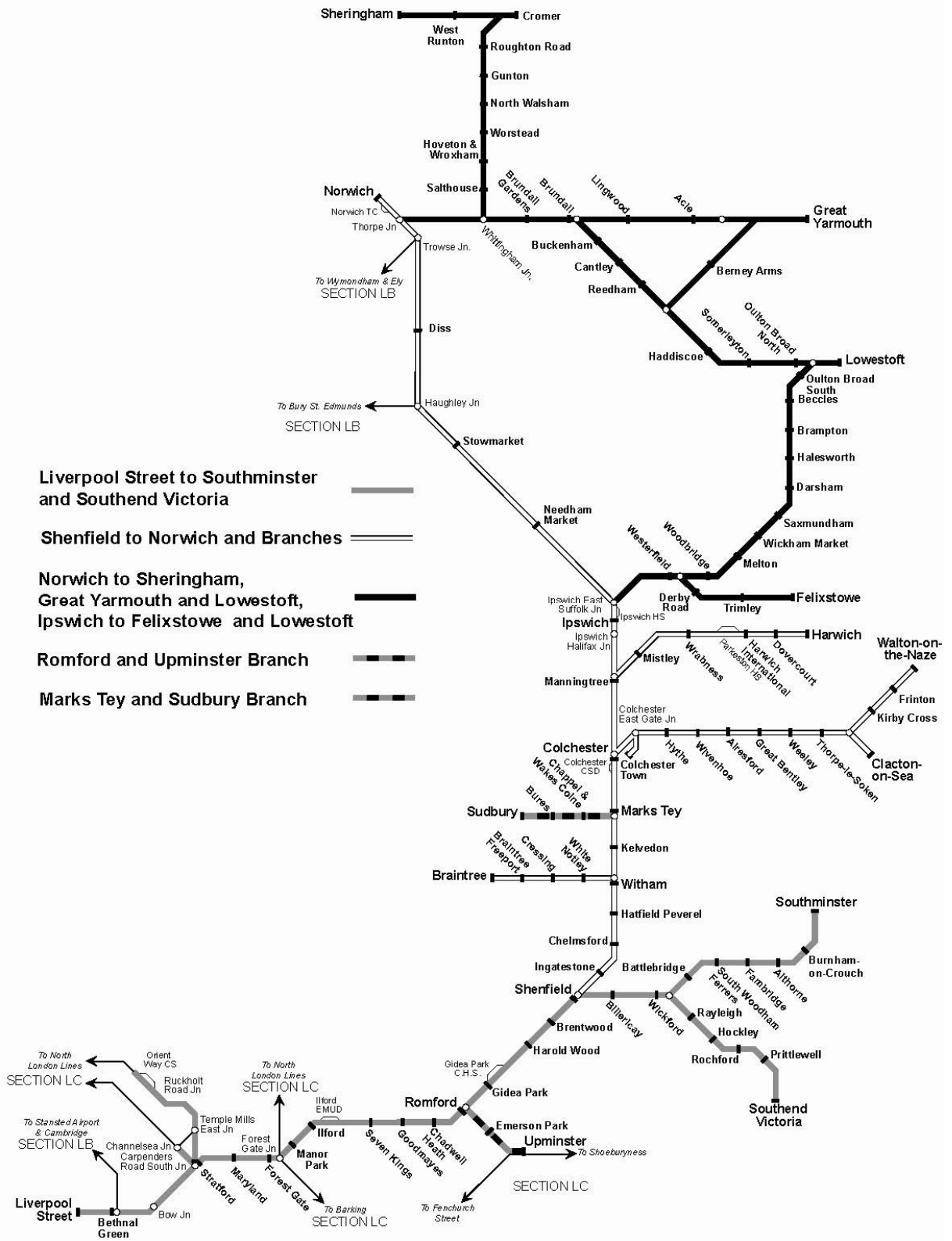
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|-------|------|------|-----------|----|---------------------|-------------|----|------------|
| | | | | | PONDRSEND | F'TS *** | | |
| | | | | | BRIMSDOWN | F'TS *** | | |
| | | | | | ENFLDLOCK | F'TS *** | | |
| | | | | | WALTHMCRS | F'TS *** | | |
| | | | | | CESHUNT | F'TS *** | | |
| 10/10 | 2W63 | 1014 | SHENFIELD | EX | FORESTGTJ-STRATFORD | 004 *** | YB | 502F21MF10 |
| 10/10 | 2D74 | 1017 | IPSWICH | EB | IPSWICH | 005 *** | YB | 509P142F10 |
| 10/10 | 1N18 | 1018 | LIVERPLST | EB | LIVERPLST-COLCHESTR | Pt cnc1 *** | | |
| | | | | | COLCHESTR | 011 *** | | |
| 10/10 | 2W10 | 1020 | IPSWICH | EB | IPSWICH | 005 *** | YB | 492D74MG10 |
| 10/10 | 2F28 | 1020 | COLCHESTR | EB | COLCHESTR | 009 *** | | |
| 10/10 | 1P29 | 1030 | NORWICH | EB | CHELMSFRD-SHENFIELD | 020 *** | | |
| 10/10 | 1K51 | 1030 | STHENDVIC | EB | SHENFIELD-GIDEAPARK | 004 *** | YB | 481P25MF10 |
| | | | | | GIDEAPARK-ILFORD | 004 *** | YD | 481P25MF10 |
| 10/10 | 2F27 | 1035 | COLCHTOWN | EB | CHELMSFRD-SHENFIELD | 007 *** | | |
| | | | | | COLCHTOWN | 003 *** | YI | 502F28MG10 |
| 10/10 | 2Y44 | 1038 | STRATFORD | EK | CAMDEN RD | 001 *** | YD | 494M94CB10 |
| | | | | | CANONBYWJ-CAMDEN RD | 001 *** | YD | 494M94CB10 |
| 10/10 | 2F36 | 1038 | LIVERPLST | EB | BOW JUNCT-STRATFORD | 003 *** | YD | 521K32MH10 |
| 10/10 | 1K53 | 1050 | STHENDVIC | EB | FORESTGTJ-STRATFORD | 003 *** | YD | 501N33MG10 |
| 10/10 | 1Y37 | 1053 | IPSWICH | EB | CHELMSFRD-SHENFIELD | 015 *** | | |
| 10/10 | 6V12 | 1054 | CHLMSFDFD | WA | CHELMSFRD-SHENFIELD | 003 *** | | |
| 10/10 | 1K34 | 1055 | LIVERPLST | EB | LIVERPLST | 009 *** | YI | 502F21MF10 |
| 10/10 | 2F32 | 1056 | COLCHESTR | EB | COLCHESTR | 006 *** | YL | 521P16MF10 |
| | | | | | THORPLSOK | 008 *** | YB | 521N18MG10 |
| 10/10 | 5M26 | 1057 | LIVERPLST | EB | LIVERPLST | 008 *** | YI | 491Y31MF10 |
| 10/10 | 1P31 | 1100 | NORWICH | EB | WITHAM -CHELMSFRD | 005 *** | YD | 493S601E10 |
| | | | | | CHELMSFRD-SHENFIELD | 007 *** | | |
| 10/10 | 1F39 | 1100 | BRAINTREE | EB | CHELMSFRD-SHENFIELD | 012 *** | | |
| 10/10 | 5V40 | 1104 | LIVERPLST | EB | LIVERPLST | 003 *** | YB | 525M26MH10 |
| 10/10 | 1N35 | 1105 | CLACTONOS | EB | CHELMSFRD-SHENFIELD | 016 *** | | |
| | | | | | COLCHESTR | 003 *** | YB | 521Y12MG10 |

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|-------|------|------|-----------|----|-----------------------|------|-----|----|------------|
| 10/10 | 2D79 | 1107 | LOWESTOFT | EB | LOWESTOFT-SAXMUNDHM | 006 | *** | YE | 492D74MG10 |
| 10/10 | 5M28 | 1110 | LIVERPLST | EB | LIVERPLST | 003 | *** | YI | 501F37MG10 |
| 10/10 | 2D76 | 1117 | IPSWICH | EB | IPSWICH | 006 | *** | YL | 521P16MF10 |
| 10/10 | 4Z33 | 1120 | FELIXSGBR | PE | DERBY RD -STOWMARKT | 005 | *** | YB | 521P24MJ10 |
| | | | | | ELY NTHJN-MARCH | 004 | *** | YC | 481R90ML10 |
| 10/10 | 2W12 | 1120 | IPSWICH | EB | IPSWICH | 004 | *** | YB | 521P16MF10 |
| 10/10 | 2F34 | 1120 | COLCHESTR | EB | COLCHESTR | 003 | *** | YL | 491Y37MH10 |
| 10/10 | 1P33 | 1130 | NORWICH | EB | NORWICH | 004 | *** | YI | 521P14ME10 |
| | | | | | BETHNALGN-LIVERPLST | 003 | *** | YC | 505F54ML10 |
| 10/10 | 1P24 | 1130 | LIVERPLST | EB | BOW JUNCT-STRATFORD | 003 | *** | YB | 506V12CH10 |
| 10/10 | 2W79 | 1134 | SHENFIELD | EX | ILFORD -FORESTGTJ | 003 | *** | YB | 501F39MI10 |
| 10/10 | 2F33 | 1135 | COLCHTOWN | EB | CHELMSFRD-SHENFIELD | 012 | *** | | |
| | | | | | FORESTGTJ-STRATFORD | 008 | *** | YD | 494M88CF10 |
| 10/10 | 1K38 | 1135 | LIVERPLST | EB | BOW JUNCT-STRATFORD | 003 | *** | YD | 521P24MJ10 |
| 10/10 | 2J75 | 1148 | LOWESTOFT | EB | LOWESTOFT | 005 | *** | YI | 492D74MG10 |
| 10/10 | 1Y39 | 1152 | IPSWICH | EB | IPSWICH -COLCHESTR Pt | cnc1 | *** | | |
| 10/10 | 1P35 | 1200 | NORWICH | EB | NORWICH | 010 | *** | YI | 521P14ME10 |
| 10/10 | 1F41 | 1200 | BRAINTREE | EB | ILFORD -FORESTGTJ | 003 | *** | YD | 502F33MJ10 |
| 10/10 | 1N37 | 1205 | CLACTONOS | EB | COLCHESTR | 005 | *** | YB | 481P33MJ10 |
| 10/10 | 2D81 | 1207 | LOWESTOFT | EB | LOWESTOFT-SAXMUNDHM | 006 | *** | YE | 492D76MI10 |
| 10/10 | 2K42 | 1213 | LIVERPLST | EB | LIVERPLST | 007 | *** | YI | 501F39MI10 |
| | | | | | GIDEAPARK-SHENFIELD | 006 | *** | YC | 522W78MK10 |
| 10/10 | 2T26 | 1226 | TRING | EJ | HARROWWLD-WILSDNWLJ | 005 | *** | YB | 494M63CE10 |
| 10/10 | 1P37 | 1230 | NORWICH | EB | WITHAM -CHELMSFRD | 003 | *** | YD | 491Y41ML10 |
| 10/10 | 1F24 | 1248 | LIVERPLST | EB | STRATFORD | 003 | *** | YB | 494M88CF10 |
| 10/10 | 1Y41 | 1253 | IPSWICH | EB | IPSWICH -MANINGTRE | 005 | *** | YD | 481P35MK10 |
| 10/10 | 2Y62 | 1253 | STRATFORD | EK | STRATFORD-NAVRORDJN | 003 | *** | YD | 494M88CF10 |
| 10/10 | 2N15 | 1254 | EUSTON | EJ | WILSDNWLJ-HARROWWLD | 004 | *** | YB | 494M63CE10 |
| 10/10 | 1K69 | 1330 | STHENDVIC | EB | STHENDVIC | 009 | *** | YI | 522K42MK10 |
| 10/10 | 2W15 | 1434 | SHENFIELD | EX | BETHNALGN-LIVERPLST | 003 | *** | YO | 521Y24MS10 |
| 10/10 | 6O69 | 1453 | HORNSYEMU | PE | CLAPHAMJN-BALHAM | 003 | *** | YB | 872I40MR10 |
| 10/10 | 2K40 | 1536 | VICTORIA | ET | CLAPHAMJN-BALHAM | 003 | *** | YB | 506O79CF10 |

| | | | | | | | | | |
|-------|------|------|-----------|----|---------------------|------|-----|----|------------|
| 10/10 | 2I40 | 1541 | VICTORIA | ET | CLAPHAMJN-BALHAM | 004 | *** | YD | 872K40MR10 |
| 10/10 | 2J43 | 1544 | LONDONBDG | ET | STREATHAM-SELHURST | 003 | *** | YD | 872B82MR10 |
| 10/10 | 2B82 | 1546 | VICTORIA | ET | CLAPHAMJN-BALHAM | 003 | *** | YD | 546069CP10 |
| | | | | | BALHAM -SELHURST | 004 | *** | YD | 546069CP10 |
| | | | | | SELHURST -W CROYDON | 003 | *** | YO | 872K40MR10 |
| 10/10 | 6069 | 1453 | HORNSYEMU | PE | CLAPHAMJN-BALHAM | 003 | *** | YB | 872I40MR10 |
| 10/10 | 2K40 | 1536 | VICTORIA | ET | CLAPHAMJN-BALHAM | 003 | *** | YB | 506079CF10 |
| 10/10 | 2I40 | 1541 | VICTORIA | ET | CLAPHAMJN-BALHAM | 004 | *** | YD | 872K40MR10 |
| 10/10 | 2J43 | 1544 | LONDONBDG | ET | STREATHAM-SELHURST | 003 | *** | YD | 872B82MR10 |
| 10/10 | 2B82 | 1546 | VICTORIA | ET | CLAPHAMJN-BALHAM | 003 | *** | YD | 546069CP10 |
| | | | | | BALHAM -SELHURST | 004 | *** | YD | 546069CP10 |
| | | | | | SELHURST -W CROYDON | 003 | *** | YO | 872K40MR10 |
| 10/10 | 2047 | 1549 | SHEPHDSBH | ET | BALHAM -SELHURST | 002 | *** | YD | 872J43NR10 |
| 10/10 | 2B84 | 1600 | VICTORIA | ET | BALHAM -SELHURST | 003 | *** | YD | 722047MR10 |
| | | | | | W CROYDON-SUTTON | 003 | *** | YB | 872B89MT10 |
| 10/10 | 2B89 | 1641 | SUTTON | ET | SUTTON | 005 | *** | YI | 872B82MR10 |
| | | | | | CARSHLTNB | F'TS | *** | | |
| | | | | | WALLINGTN | F'TS | *** | | |
| | | | | | WADDON | F'TS | *** | | |
| | | | | | W CROYDON | F'TS | *** | | |

End of report

WORKING TIMETABLE SECTION LA



FOUR CHARACTER TRAIN IDENTIFICATION SYSTEM

The numbers and letters inserted in the columns over the train titles indicate the classification and identification number of the train.

The first character (figure) indicates the classification of the train:-

- 0** Light Locomotive.
- 1** Express Passenger Train or Mail Train.
- 2** Ordinary Passenger Train.
- 5** Empty Coaching Stock Train (E.C.S.).
- 8** Sandite.
- 9** International Passenger Train.

The second character (letter) indicates the destination area or district:- Trains terminating in, at or between:-

- A** Manningtree and Harwich Town.
- B** LTS trains between London Liverpool Street and Shoeburyness (via Laindon).
- C** Stratford and Gidea Park.
- D** Ipswich to Lowestoft.
- E** To East Coast Main Line area.
- F** Chelmsford (including Braintree branch) and Colchester.
- H** Thornton Field CMD.
- L** East Anglia area.
- J** Wickford and Southminster.
- K** Billericay and Southend Victoria.
- M** To the Midlands and North West areas.
- N** Colchester Town and Clacton/Walton-on-Naze.
- O** To Southern area.
- P** Stowmarket and Norwich/Great Yarmouth.
- R** LTS trains between London Liverpool Street and Shoeburyness (via Rainham), and Ipswich to Felixstowe.
- S** To Scotland.
- T** Colchester/Marks Tey and Sudbury.
- V** To Great Western area.
Romford and Upminster.
ECS trains running to Ilford EMUD.
- W** Harold Wood and Ingatestone.
- X** Special instructions apply.
- Y** Ipswich.
- Z** Special trains.

Trains to London Liverpool Street show the letter appropriate to their point of origin.

The third and fourth characters indicate the individual train reporting number:-

Trains FROM London Liverpool Street are EVEN numbered.
Trains TO London Liverpool Street are ODD numbered.

Other Timing Loads:

LD Light Diesel Locomotive
LE Light Electric Locomotive

RUNNING LINES

BL TEMPLE MILLS LINES, between Bow Junction and Stratford.
DL DOWN MAIN LINE, between Ely Dock Junction and Ely North Junction.
DW Up train running on the DOWN line at WOODGRANGE PARK.
EL ELECTRIC LINE, between London Liverpool Street and Shenfield.
FL FAST LINE, between Bethnal Green and Hackney Downs.
GL GOODS LINE, Barking and Dagenham Dock
IL Via ILFORD Passenger Avoiding line.
ML MAIN LINES between Liverpool Street and Shenfield.
Barking and Dagenham Dock.
NLI NORTH LONDON INCLINE, between Camden Road East Junction and
Kings Cross Freight Terminal Junction.
1 NUMBER ONE LINE, between Camden Road East Junction and Dalston Junction.
2 NUMBER TWO LINE, between Dalston Junction and Camden Road East Junction.
REV REVERSE LINE at Mitre Bridge Junction and Willesden S.W. Sidings.
S SUBURBAN LINE, between London Liverpool Street and Hackney Downs.
UL UP MAIN LINE, between Ely North Junction to Ely Dock Junction.
UW Down train running on the UP line at WOODGRANGE PARK.

Codes **BL**, **EL** and **ML** may be prefixed with the letter D or U, where D means the use of the DOWN line by an UP train, and U means the use of the UP line by a DOWN train. This applies between Bow Junction and Forest Gate Junction.

Trains may be diverted from one line to another at Junctions, but care must be taken that this is only done when necessary to prevent delay.

FOUR-CHARACTER TRAIN IDENTIFICATION SYSTEM

The numbers and letters inserted in the columns over the train titles indicate the classification and identification number of the train.

The first character (figure) indicates the classification of the train:-

- 0** Light Locomotive(s).
- 4** Freight train permitted to run at more than 60 mph.
- 6** Freight train permitted to run at 50, 55 or 60 mph.
- 7** Freight train permitted to run at 40 or 45 mph.
- 8** Freight train timed not to exceed 35 mph.

The second character (letter) indicates the route:-

(1) INTER-REGIONAL TRAINS

| <u>Letter</u> | <u>Destination</u> | <u>Letter</u> | <u>Destination</u> |
|---------------|-------------------------------|---------------|-------------------------|
| E | Former Eastern Region. | O | Former Southern Region. |
| L | Former Anglia Region. | S | Former Scottish Region. |
| M | Former London Midland Region. | V | Former Western Region. |

(2) TRAINS RUNNING WITHIN THE FORMER ANGLIA REGION

| <u>Letter</u> | <u>Destination</u> | <u>Letter</u> | <u>Destination</u> |
|---------------|-----------------------------------|---------------|--|
| A | Harwich District. | P | Norwich District. |
| C | London Liverpool Street District. | R | Barking District & Felixtowe Branch |
| D | Broxbourne District. | W | Cambridge (from Ipswich) |
| F | Colchester District. | Y | Ipswich District, (except Felixstowe Branch) |
| H | Cambridge District (Main Line) | | |

Trains with an X headcode

The use of an X in the headcode of a train shown in this working timetable indicates that the train conveys an exceptional load for which special conditions apply. Signallers must ensure that they are in possession of the special conditions relevant to the train (s).

EXPLANATION OF REFERENCES

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

EXPLANATION OF REFERENCES

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. |