

Lower Thames Crossing
Traffic Forecasting Report
Appendices

Contents

Section	Page
Executive Summary	1
Appendices	5
Appendix A – Uncertainty Log	7
Appendix B – LTC Scheme Impacts – Cross River Flow Comparisons	21
Appendix C – LTC Scheme Impacts – Detailed Link Based Journey Time Comparisons	31
Appendix D – Sensitivity Tests – Outputs to Economic Assessment	81
Appendix E – Sensitivity Tests – Flow Comparisons to Core Scenario	241
Appendix F – Sensitivity Tests – Outputs to Operational Assessment	267

Figures

- Figure B1 – Core Scenario – AM Southbound Cross River Flows (PCU/Hr)
- Figure B2 – Core Scenario – IP Southbound Cross River Flows (PCU/Hr)
- Figure B3 – Core Scenario – PM Southbound Cross River Flows (PCU/Hr)
- Figure B4 – Core Scenario – AM Northbound Cross River Flows (PCU/Hr)
- Figure B5 – Core Scenario – IP Northbound Cross River Flows (PCU/Hr)
- Figure B6 – Core Scenario – PM Northbound Cross River Flows (PCU/Hr)
- Figure B7 – Low Growth Scenario – AM Southbound Cross River Flows (PCU/Hr)
- Figure B8 – Low Growth Scenario – IP Southbound Cross River Flows (PCU/Hr)
- Figure B9 – Low Growth Scenario – PM Southbound Cross River Flows (PCU/Hr)
- Figure B10 – Low Growth Scenario – AM Northbound Cross River Flows (PCU/Hr)
- Figure B11 – Low Growth Scenario – IP Northbound Cross River Flows (PCU/Hr)
- Figure B12 – Low Growth Scenario – PM Northbound Cross River Flows (PCU/Hr)
- Figure B13 – High Growth Scenario – AM Southbound Cross River Flows (PCU/Hr)
- Figure B14 – High Growth Scenario – IP Southbound Cross River Flows (PCU/Hr)
- Figure B15 – High Growth Scenario – PM Southbound Cross River Flows (PCU/Hr)
- Figure B16 – High Growth Scenario – AM Northbound Cross River Flows (PCU/Hr)
- Figure B17 – High Growth Scenario – IP Northbound Cross River Flows (PCU/Hr)
- Figure B18 – High Growth Scenario – PM Northbound Cross River Flows (PCU/Hr)
- Figure C1 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2026 Core AM Peak
- Figure C2 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2026 Core Inter Peak
- Figure C3 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2026 Core PM Peak
- Figure C4 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2026 Core AM Peak
- Figure C5 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2026 Core Inter Peak
- Figure C6 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2026 Core PM Peak
- Figure C7 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2031 Core AM Peak
- Figure C8 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2031 Core Inter Peak
- Figure C9 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2031 Core PM Peak
- Figure C10 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2031 Core AM Peak
- Figure C11 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2031 Core Inter Peak
- Figure C12 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2031 Core PM Peak
- Figure C13 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2041 Core AM Peak

Figure C14 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2041 Core Inter Peak
Figure C15 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2041 Core PM Peak
Figure C16 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2041 Core AM Peak
Figure C17 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2041 Core Inter Peak
Figure C18 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2041 Core PM Peak
Figure C19 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core AM Peak
Figure C20 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core Inter Peak
Figure C21 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core PM Peak
Figure C22 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak
Figure C23 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak
Figure C24 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak
Figure D1 – Actual Flow Comparison Plot – 2026 Low Growth DM Vs DS AM Peak
Figure D2 – Actual Flow Comparison Plot – 2026 Low Growth DM Vs DS Inter Peak
Figure D3 – Actual Flow Comparison Plot – 2026 Low Growth DM Vs DS PM Peak
Figure D4 – Actual Flow Comparison Plot – 2031 Low Growth DM Vs DS AM Peak
Figure D5 – Actual Flow Comparison Plot – 2031 Low Growth DM Vs DS Inter Peak
Figure D6 – Actual Flow Comparison Plot – 2031 Low Growth DM Vs DS PM Peak
Figure D7 – Actual Flow Comparison Plot – 2041 Low Growth DM Vs DS AM Peak
Figure D8 – Actual Flow Comparison Plot – 2041 Low Growth DM Vs DS Inter Peak
Figure D9 – Actual Flow Comparison Plot – 2041 Low Growth DM Vs DS PM Peak
Figure D10 – Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS AM Peak
Figure D11 – Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS Inter Peak
Figure D12 – Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS PM Peak
Figure D13 – Actual Flow Comparison Plot – 2026 High Growth DM Vs DS AM Peak
Figure D14 – Actual Flow Comparison Plot – 2026 High Growth DM Vs DS Inter Peak
Figure D15 – Actual Flow Comparison Plot – 2026 High Growth DM Vs DS PM Peak
Figure D16 – Actual Flow Comparison Plot – 2031 High Growth DM Vs DS AM Peak
Figure D17 – Actual Flow Comparison Plot – 2031 High Growth DM Vs DS Inter Peak
Figure D18 – Actual Flow Comparison Plot – 2031 High Growth DM Vs DS PM Peak
Figure D19 – Actual Flow Comparison Plot – 2041 High Growth DM Vs DS AM Peak
Figure D20 – Actual Flow Comparison Plot – 2041 High Growth DM Vs DS Inter Peak
Figure D21 – Actual Flow Comparison Plot – 2041 High Growth DM Vs DS PM Peak
Figure D22 – Actual Flow Comparison Plot – 2051 High Growth DM Vs DS AM Peak
Figure D23 – Actual Flow Comparison Plot – 2051 High Growth DM Vs DS Inter Peak
Figure D24 – Actual Flow Comparison Plot – 2051 High Growth DM Vs DS PM Peak

Figure E1 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026 DM AM Peak
Figure E2 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026 DM Inter Peak
Figure E3 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026 DM PM Peak
Figure E4 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DM AM Peak
Figure E5 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DM Inter Peak
Figure E6 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DM PM Peak
Figure E7 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DM AM Peak
Figure E8 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DM Inter Peak
Figure E9 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DM PM Peak
Figure E10 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DM AM Peak
Figure E11 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DM Inter Peak
Figure E12 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DM PM Peak
Figure E13 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026 DS AM Peak
Figure E14 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026 DS Inter Peak
Figure E15 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026 DS PM Peak
Figure E16 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DS AM Peak
Figure E17 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DS Inter Peak
Figure E18 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DS PM Peak
Figure E19 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DS AM Peak
Figure E20 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DS Inter Peak
Figure E21 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DS PM Peak
Figure E22 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS AM Peak
Figure E23 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS Inter Peak

Figure E24 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS
PM Peak

Figure E25 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2026 DM
AM Peak

Figure E26 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2026 DM
Inter Peak

Figure E27 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2026 DM
PM Peak

Figure E28 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2031 DM
AM Peak

Figure E29 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2031 DM
Inter Peak

Figure E30 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2031 DM
PM Peak

Figure E31 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2041 DM
AM Peak

Figure E32 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2041 DM
Inter Peak

Figure E33 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2041 DM
PM Peak

Figure E34 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DM
AM Peak

Figure E35 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DM
Inter Peak

Figure E36 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DM
PM Peak

Figure E37 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2026 DS
AM Peak

Figure E38 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2026 DS
Inter Peak

Figure E39 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2026 DS
PM Peak

Figure E40 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2031 DS
AM Peak

Figure E41 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2031 DS
Inter Peak

Figure E42 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2031 DS
PM Peak

Figure E43 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2041 DS
AM Peak

Figure E44 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2041 DS
Inter Peak

Figure E45 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2041 DS
PM Peak

Figure E46 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DS
AM Peak

Figure E47 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DS Inter Peak

Figure E48 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DS PM Peak

Figure F1 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak All Vehicles (PCU's)

Figure F2 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak HGV (PCU's)

Figure F3 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak All Vehicles (PCU's)

Figure F4 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak HGV (PCU's)

Figure F5 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak All Vehicles (PCU's)

Figure F6 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak HGV (PCU's)

Figure F7 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak All Vehicles (PCU's)

Figure F8 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak HGV (PCU's)

Figure F9 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak All Vehicles (PCU's)

Figure F10 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak HGV (PCU's)

Figure F11 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak All Vehicles (PCU's)

Figure F12 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak HGV (PCU's)

Figure F13 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak All Vehicles (PCU's)

Figure F14 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak HGV (PCU's)

Figure F15 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak All Vehicles (PCU's)

Figure F16 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak HGV (PCU's)

Figure F17 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak All Vehicles (PCU's)

Figure F18 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak HGV (PCU's)

Figure F19 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak All Vehicles (PCU's)

Figure F20 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak HGV (PCU's)

Figure F21 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak All Vehicles (PCU's)

Figure F22 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak HGV (PCU's)

Figure F23 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak All Vehicles (PCU's)

Figure F24 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak HGV (PCU's)

Figure F25 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak All Vehicles (PCU's)

Figure F26 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak HGV (PCU's)

Figure F27 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak All Vehicles (PCU's)

Figure F28 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak HGV (PCU's)

Figure F29 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak All Vehicles (PCU's)

Figure F30 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak HGV (PCU's)

Figure F31 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak All Vehicles (PCU's)

Figure F32 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak HGV (PCU's)

Figure F33 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak All Vehicles (PCU's)

Figure F34 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak HGV (PCU's)

Figure F35 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak All Vehicles (PCU's)

Figure F36 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak HGV (PCU's)

Figure F37 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCU's)

Figure F38 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCU's)

Figure F39 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCU's)

Figure F40 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCU's)

Figure F41 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCU's)

Figure F42 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCU's)

Figure F43 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCU's)

Figure F44 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCU's)

- Figure F45 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCU's)
- Figure F46 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCU's)
- Figure F47 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCU's)
- Figure F48 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCU's)
- Figure F49 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak All Vehicles (PCU's)
- Figure F50 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak HGV (PCU's)
- Figure F51 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak All Vehicles (PCU's)
- Figure F52 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak HGV (PCU's)
- Figure F53 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak All Vehicles (PCU's)
- Figure F54 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak HGV (PCU's)
- Figure F55 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak All Vehicles (PCU's)
- Figure F56 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak HGV (PCU's)
- Figure F57 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak All Vehicles (PCU's)
- Figure F58 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak HGV (PCU's)
- Figure F59 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak All Vehicles (PCU's)
- Figure F60 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak HGV (PCU's)
- Figure F61 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak All Vehicles (PCU's)
- Figure F62 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak HGV (PCU's)
- Figure F63 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak All Vehicles (PCU's)
- Figure F64 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak HGV (PCU's)
- Figure F65 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak All Vehicles (PCU's)
- Figure F66 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak HGV (PCU's)
- Figure F67 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak All Vehicles (PCU's)

Figure F68 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak HGV (PCU's)

Figure F69 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak All Vehicles (PCU's)

Figure F70 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak HGV (PCU's)

Figure F71 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak All Vehicles (PCU's)

Figure F72 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak HGV (PCU's)

Figure F73 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak All Vehicles (PCU's)

Figure F74 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak HGV (PCU's)

Figure F75 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak All Vehicles (PCU's)

Figure F76 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak HGV (PCU's)

Figure F77 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak All Vehicles (PCU's)

Figure F78 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak HGV (PCU's)

Figure F79 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak All Vehicles (PCU's)

Figure F80 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak HGV (PCU's)

Figure F81 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak All Vehicles (PCU's)

Figure F82 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak HGV (PCU's)

Figure F83 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak All Vehicles (PCU's)

Figure F84 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak HGV (PCU's)

Figure F85 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCU's)

Figure F86 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCU's)

Figure F87 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCU's)

Figure F88 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCU's)

Figure F89 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCU's)

Figure F90 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCU's)

Figure F91 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCU's)

Figure F92 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGV (PCU's)

Figure F93 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCU's)

Figure F94 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGV (PCU's)

Figure F95 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCU's)

Figure F96 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGV (PCU's)

Tables

Table A1 – Planned Land Use Developments in LTAM

Table A2 – Planned Highways England Schemes in LTAM

Table A3 – Planned Local Authority Schemes in LTAM

Table C1 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2026 Core AM Peak

Table C2 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2026 Core Inter Peak

Table C3 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2026 Core PM Peak

Table C4 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2026 Core AM Peak

Table C5 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2026 Core Inter Peak

Table C6 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2026 Core PM Peak

Table C7 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2031 Core AM Peak

Table C8 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2031 Core Inter Peak

Table C9 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2031 Core PM Peak

Table C10 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2031 Core AM Peak

Table C11 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2031 Core Inter Peak

Table C12 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2031 Core PM Peak

Table C13 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2041 Core AM Peak

Table C14 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2041 Core Inter Peak

Table C15 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2041 Core PM Peak

Table C16 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2041 Core AM Peak

Table C17 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2041 Core Inter Peak

Table C18 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2041 Core PM Peak

Table C19 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core AM Peak

Table C20 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core Inter Peak

Table C21 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core PM Peak

Table C22 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak

Table C23 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak

Table C24 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak

Table D1 – Matrix Total Comparison – 2026 Low Growth All Movements (PCU's)

Table D2 – Matrix Total Comparison – 2026 Low Growth Relevant Movements (PCU's)

Table D3 – HAM Convergence Statistics – 2026 Low Growth DM AM Peak

Table D4 – HAM Convergence Statistics – 2026 Low Growth DM Inter Peak

Table D5 – HAM Convergence Statistics – 2026 Low Growth DM PM Peak

Table D6 – HAM Convergence Statistics – 2026 Low Growth DS AM Peak

Table D7 – HAM Convergence Statistics – 2026 Low Growth DS Inter Peak

Table D8 – HAM Convergence Statistics – 2026 Low Growth DS PM Peak

Table D9 – Cross River Traffic Flows – 2026 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D10 – Key Corridor Traffic Flows – 2026 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D11 – Link Based Journey Time Scenario Comparison (2026 Low Growth DM Vs DS) AM Peak

Table D12 – Link Based Journey Time Scenario Comparison (2026 Low Growth DM Vs DS) Inter Peak

Table D13 – Link Based Journey Time Scenario Comparison (2026 Low Growth DM Vs DS) PM Peak

Table D14 – Route Based Journey Time Comparison North to South Movements (2026 Low Growth DM Vs DS) AM Peak

Table D15 – Route Based Journey Time Comparison North to South Movements (2026 Low Growth DM Vs DS) Inter Peak

Table D16 – Route Based Journey Time Comparison North to South Movements (2026 Low Growth DM Vs DS) PM Peak

Table D17 – Route Based Journey Time Comparison South to North Movements (2026 Low Growth DM Vs DS) AM Peak

Table D18 – Route Based Journey Time Comparison South to North Movements (2026 Low Growth DM Vs DS) Inter Peak

Table D19 – Route Based Journey Time Comparison South to North Movements (2026 Low Growth DM Vs DS) PM Peak

Table D20 – Matrix Total Comparison – 2031 Low Growth All Movements (PCU's)

Table D21 – Matrix Total Comparison – 2031 Low Growth Relevant Movements (PCU's)

Table D22 – HAM Convergence Statistics – 2031 Low Growth DM AM Peak

Table D23 – HAM Convergence Statistics – 2031 Low Growth DM Inter Peak

Table D24 – HAM Convergence Statistics – 2031 Low Growth DM PM Peak

Table D25 – HAM Convergence Statistics – 2031 Low Growth DS AM Peak

Table D26 – HAM Convergence Statistics – 2031 Low Growth DS Inter Peak

Table D27 – HAM Convergence Statistics – 2031 Low Growth DS PM Peak

Table D28 – Cross River Traffic Flows – 2031 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D29 – Key Corridor Traffic Flows – 2031 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D30 – Link Based Journey Time Scenario Comparison (2031 Low Growth DM Vs DS) AM Peak

Table D31 – Link Based Journey Time Scenario Comparison (2031 Low Growth DM Vs DS) Inter Peak

Table D32 – Link Based Journey Time Scenario Comparison (2031 Low Growth DM Vs DS) PM Peak

Table D33 – Route Based Journey Time Comparison North to South Movements (2031 Low Growth DM Vs DS) AM Peak

Table D34 – Route Based Journey Time Comparison North to South Movements (2031 Low Growth DM Vs DS) Inter Peak

Table D35 – Route Based Journey Time Comparison North to South Movements (2031 Low Growth DM Vs DS) PM Peak

Table D36 – Route Based Journey Time Comparison South to North Movements (2031 Low Growth DM Vs DS) AM Peak

Table D37 – Route Based Journey Time Comparison South to North Movements (2031 Low Growth DM Vs DS) Inter Peak

Table D38 – Route Based Journey Time Comparison South to North Movements (2031 Low Growth DM Vs DS) PM Peak

Table D39 – Matrix Total Comparison – 2041 Low Growth All Movements (PCU's)

Table D40 – Matrix Total Comparison – 2041 Low Growth Relevant Movements (PCU's)

Table D41 – HAM Convergence Statistics – 2041 Low Growth DM AM Peak

Table D42 – HAM Convergence Statistics – 2041 Low Growth DM Inter Peak

Table D43 – HAM Convergence Statistics – 2041 Low Growth DM PM Peak

Table D44 – HAM Convergence Statistics – 2041 Low Growth DS AM Peak

Table D45 – HAM Convergence Statistics – 2041 Low Growth DS Inter Peak

Table D46 – HAM Convergence Statistics – 2041 Low Growth DS PM Peak

Table D47 – Cross River Traffic Flows – 2041 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D48 – Key Corridor Traffic Flows – 2041 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D49 – Link Based Journey Time Scenario Comparison (2041 Low Growth DM Vs DS) AM Peak

Table D50 – Link Based Journey Time Scenario Comparison (2041 Low Growth DM Vs DS) Inter Peak

Table D51 – Link Based Journey Time Scenario Comparison (2041 Low Growth DM Vs DS) PM Peak

Table D52 – Route Based Journey Time Comparison North to South Movements (2041 Low Growth DM Vs DS) AM Peak

Table D53 – Route Based Journey Time Comparison North to South Movements (2041 Low Growth DM Vs DS) Inter Peak

Table D54 – Route Based Journey Time Comparison North to South Movements (2041 Low Growth DM Vs DS) PM Peak

Table D55 – Route Based Journey Time Comparison South to North Movements (2041 Low Growth DM Vs DS) AM Peak

Table D56 – Route Based Journey Time Comparison South to North Movements (2041 Low Growth DM Vs DS) Inter Peak

Table D57 – Route Based Journey Time Comparison South to North Movements (2041 Low Growth DM Vs DS) PM Peak

Table D58 – Matrix Total Comparison – 2051 Low Growth All Movements (PCU's)

Table D59 – Matrix Total Comparison – 2051 Low Growth Relevant Movements (PCU's)

Table D60 – HAM Convergence Statistics – 2051 Low Growth DM AM Peak

Table D61 – HAM Convergence Statistics – 2051 Low Growth DM Inter Peak

Table D62 – HAM Convergence Statistics – 2051 Low Growth DM PM Peak

Table D63 – HAM Convergence Statistics – 2051 Low Growth DS AM Peak

Table D64 – HAM Convergence Statistics – 2051 Low Growth DS Inter Peak

Table D65 – HAM Convergence Statistics – 2051 Low Growth DS PM Peak

Table D66 – Cross River Traffic Flows – 2051 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D67 – Key Corridor Traffic Flows – 2051 Low Growth DM Vs DS (Hourly Flows in PCU's)

Table D68 – Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) AM Peak

Table D69 – Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) Inter Peak

Table D70 – Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) PM Peak

Table D71 – Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) AM Peak

Table D72 – Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) Inter Peak

Table D73 – Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) PM Peak

Table D74 – Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) AM Peak

Table D75 – Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) Inter Peak

Table D76 – Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) PM Peak

Table D77 – Matrix Total Comparison – 2026 High Growth All Movements (PCU's)

Table D78 – Matrix Total Comparison – 2026 High Growth Relevant Movements (PCU's)

Table D79 – HAM Convergence Statistics – 2026 High Growth DM AM Peak

Table D80 – HAM Convergence Statistics – 2026 High Growth DM Inter Peak

Table D81 – HAM Convergence Statistics – 2026 High Growth DM PM Peak

Table D82 – HAM Convergence Statistics – 2026 High Growth DS AM Peak

Table D83 – HAM Convergence Statistics – 2026 High Growth DS Inter Peak

Table D84 – HAM Convergence Statistics – 2026 High Growth DS PM Peak

Table D85 – Cross River Traffic Flows – 2026 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D86 – Key Corridor Traffic Flows – 2026 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D87 – Link Based Journey Time Scenario Comparison (2026 High Growth DM Vs DS) AM Peak

Table D88 – Link Based Journey Time Scenario Comparison (2026 High Growth DM Vs DS) Inter Peak

Table D89 – Link Based Journey Time Scenario Comparison (2026 High Growth DM Vs DS) PM Peak

Table D90 – Route Based Journey Time Comparison North to South Movements (2026 High Growth DM Vs DS) AM Peak

Table D91 – Route Based Journey Time Comparison North to South Movements (2026 High Growth DM Vs DS) Inter Peak

Table D92 – Route Based Journey Time Comparison North to South Movements (2026 High Growth DM Vs DS) PM Peak

Table D93 – Route Based Journey Time Comparison South to North Movements (2026 High Growth DM Vs DS) AM Peak

Table D94 – Route Based Journey Time Comparison South to North Movements (2026 High Growth DM Vs DS) Inter Peak

Table D95 – Route Based Journey Time Comparison South to North Movements (2026 High Growth DM Vs DS) PM Peak

Table D96 – Matrix Total Comparison – 2031 High Growth All Movements (PCU's)

Table D97 – Matrix Total Comparison – 2031 High Growth Relevant Movements (PCU's)

Table D98 – HAM Convergence Statistics – 2031 High Growth DM AM Peak

Table D99 – HAM Convergence Statistics – 2031 High Growth DM Inter Peak

Table D100 – HAM Convergence Statistics – 2031 High Growth DM PM Peak

Table D101 – HAM Convergence Statistics – 2031 High Growth DS AM Peak

Table D102 – HAM Convergence Statistics – 2031 High Growth DS Inter Peak

Table D103 – HAM Convergence Statistics – 2031 High Growth DS PM Peak

Table D104 – Cross River Traffic Flows – 2031 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D105 – Key Corridor Traffic Flows – 2031 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D106 – Link Based Journey Time Scenario Comparison (2031 High Growth DM Vs DS) AM Peak

Table D107 – Link Based Journey Time Scenario Comparison (2031 High Growth DM Vs DS) Inter Peak

Table D108 – Link Based Journey Time Scenario Comparison (2031 High Growth DM Vs DS) PM Peak

Table D109 – Route Based Journey Time Comparison North to South Movements (2031 High Growth DM Vs DS) AM Peak

Table D110 – Route Based Journey Time Comparison North to South Movements (2031 High Growth DM Vs DS) Inter Peak

Table D111 – Route Based Journey Time Comparison North to South Movements (2031 High Growth DM Vs DS) PM Peak

Table D112 – Route Based Journey Time Comparison South to North Movements (2031 High Growth DM Vs DS) AM Peak

Table D113 – Route Based Journey Time Comparison South to North Movements (2031 High Growth DM Vs DS) Inter Peak

Table D114 – Route Based Journey Time Comparison South to North Movements (2031 High Growth DM Vs DS) PM Peak

Table D115 – Matrix Total Comparison – 2041 High Growth All Movements (PCU's)

Table D116 – Matrix Total Comparison – 2041 High Growth Relevant Movements (PCU's)

Table D117 – HAM Convergence Statistics – 2041 High Growth DM AM Peak

Table D118 – HAM Convergence Statistics – 2041 High Growth DM Inter Peak

Table D119 – HAM Convergence Statistics – 2041 High Growth DM PM Peak

Table D120 – HAM Convergence Statistics – 2041 High Growth DS AM Peak

Table D121 – HAM Convergence Statistics – 2041 High Growth DS Inter Peak

Table D122 – HAM Convergence Statistics – 2041 High Growth DS PM Peak

Table D123 – Cross River Traffic Flows – 2041 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D124 – Key Corridor Traffic Flows – 2041 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D125 – Link Based Journey Time Scenario Comparison (2041 High Growth DM Vs DS) AM Peak

Table D126 – Link Based Journey Time Scenario Comparison (2041 High Growth DM Vs DS) Inter Peak

Table D127 – Link Based Journey Time Scenario Comparison (2041 High Growth DM Vs DS) PM Peak

Table D128 – Route Based Journey Time Comparison North to South Movements (2041 High Growth DM Vs DS) AM Peak

Table D129 – Route Based Journey Time Comparison North to South Movements (2041 High Growth DM Vs DS) Inter Peak

Table D130 – Route Based Journey Time Comparison North to South Movements (2041 High Growth DM Vs DS) PM Peak

Table D131 – Route Based Journey Time Comparison South to North Movements (2041 High Growth DM Vs DS) AM Peak

Table D132 – Route Based Journey Time Comparison South to North Movements (2041 High Growth DM Vs DS) Inter Peak

Table D133 – Route Based Journey Time Comparison South to North Movements (2041 High Growth DM Vs DS) PM Peak

Table D134 – Matrix Total Comparison – 2051 High Growth All Movements (PCU's)

Table D135 – Matrix Total Comparison – 2051 High Growth Relevant Movements (PCU's)

Table D136 – HAM Convergence Statistics – 2051 High Growth DM AM Peak

Table D137 – HAM Convergence Statistics – 2051 High Growth DM Inter Peak

Table D138 – HAM Convergence Statistics – 2051 High Growth DM PM Peak

Table D139 – HAM Convergence Statistics – 2051 High Growth DS AM Peak

Table D140 – HAM Convergence Statistics – 2051 High Growth DS Inter Peak

Table D141 – HAM Convergence Statistics – 2051 High Growth DS PM Peak

Table D142 – Cross River Traffic Flows – 2051 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D143 – Key Corridor Traffic Flows – 2051 High Growth DM Vs DS (Hourly Flows in PCU's)

Table D144 – Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) AM Peak

Table D145 – Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) Inter Peak

Table D146 – Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) PM Peak

Table D147 – Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) AM Peak

Table D148 – Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) Inter Peak

Table D149 – Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) PM Peak

Table D150 – Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) AM Peak

Table D151 – Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) Inter Peak

Table D152 – Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) PM Peak

Model Run References used in this report:

Core Growth	DM	=	CM6
	DS	=	C8E
Low Growth	DM	=	LA6
	DS	=	LAE
High Growth	DM	=	HA6
	DS	=	HAE

This page is intentionally blank

Executive Summary

The Lower Thames Area Model (LTAM) is designed for use in forecasting the impact of providing a new road crossing of the River Thames between Gravesend and Tilbury on the performance of the highway network. LTAM is used to assess the changes in traffic flows, travel times, speeds and levels of congestion on the road network.

The methods used to build the LTAM model and the match between the model and the observed traffic flows and journey times is described in the LTAM Local Model Validation Report, , which can be viewed at www.lowerthamescrossing.co.uk/publications. This Traffic Forecasting Report (TFR) describes how the model has been used to forecast the number of vehicles using the road network in the future, where they are travelling to/from and the journey times in the future on different parts of the road network.

The base year LTAM model reflects travel patterns and conditions on the road network for an average weekday in March 2016. The modelled hours are:

- AM peak hour (07:00 – 08:00);
- Average inter peak hour (09:00 – 15:00); and
- PM peak hour (17:00 – 18:00).

At the time of starting the use of the LTAM to prepare traffic forecasts, the date of opening of the Lower Thames Crossing is likely to be between 2025 and 2027. For the purposes of traffic forecasting an opening year of 2026 has been modelled.

Traffic forecasts were also prepared for 2041 as this is 15 years after opening. The forecasts for 2041 are known as the project design year forecasts and the engineers use these traffic forecasts when designing the scheme. Forecasts were also produced for 2031 in order to provide more detailed information on the trajectory of traffic growth and the changes in the time and distance of trips on the network for use in the economic appraisal of the new crossing. A set of traffic forecasts were also produced for 2051 as this is the furthest date into the future for which traffic growth forecasts are published by the DfT.

In each of the forecast years, the representation of the highway network in the model is updated to include all changes to the network that have funding or are more than likely to be built. This includes all schemes included in Highways England's Road Investment Strategy Phase 1 and some local authority schemes. These committed future schemes are listed in this report.

The growth in the number of car trips in the area is obtained by using the detailed traffic growth forecasts produced by the DfT in their National Trip End Model and published as TEMpro 7.2 traffic growth forecasts. More detailed information on location of concentrations of new trips in the future is added into the model by explicitly including those major new developments in the study area that are near certain or more than likely to be built. The overall increase in the number of trips for each forecast year in the model matches the overall level of growth predicted by the DfT's National Trip End Model.

The percentage growth in light goods vehicles and heavy goods vehicles is taken from the DfT's Road Traffic Forecasts, published in 2015 (RTF15). Again, explicit consideration is

taken on the amount of commercial vehicles from major new developments in the area that are more than likely to be built in the future. These sites are listed in this report.

The LTAM is a variable demand model. For each model year the model is used to forecast how travellers will change their behaviour as a result of changes in the levels of congestion, the cost of fuel, the fuel efficiency of the fleet and change in incomes (which affects people's ability to afford the trips they wish to make).

The transport model is first used to forecast the change in the number of trips in the area by applying the traffic growth factors taken from the DfT's TEMpro software and the DfT Road Traffic Forecasts 2015. These are called the reference case matrices in the forecasting report.

The model is then used to forecast the routes that drivers will take, given the higher levels of traffic on the network and their behavioural responses to the change in the time and cost of their planned trips. These forecasts are prepared using a road network which does not include the Lower Thames Crossing but does include those other changes to the network which are more than likely to happen.

The modelled behavioural responses included in LTAM include changes to the frequency with which people make the same trip, the possibility of switching to/from rail, changes in the time of day they travel (from say the middle of the day into a peak period) and changing where they travel to/from. In the TFR these forecasts are known as the Do Minimum scenario.

The LTAM is then used to model what is likely to happen when the Lower Thames Crossing is operational. The proposed scheme is included into the highway network and again travellers can respond by changing trip frequency, the mode of transport used, the time of day at which they travel and where they travel to/from. These forecasts are known as the Do Something scenario.

The outputs from the transport model show how many vehicles are expected to use each part of the road network. This information is then used to predict the environmental impacts of traffic (on noise and air quality). The speed on each section of the network and the length of journeys is calculated in the model. This is used to measure the performance of the road network and to provide details on the location and level of congestion.

The TFR provides information on the volumes of traffic at key points on the transport network in the future and journey times on the network. LTAM predicts that when the Lower Thames Crossing is opened there will be a reduction in the number of vehicles using the existing Dartford Crossing and a rise in the overall number of vehicles crossing the Thames using either crossing. The traffic flows at Dartford and the Lower Thames Crossing are presented in Table 1 below using passenger car units (pcu). A heavy goods vehicle has a pcu factor of 2.5 as it uses more road space than a car, which has a pcu factor of 1. For the purposes of producing the traffic forecasts it is assumed that charges will be applied at the Lower Thames Crossing and that these will be the same as those charged at Dartford.

Table 1 Predicted peak and inter-peak two-way hourly flows at the Dartford Crossing and the Lower Thames Crossing (PCUs)

Period	Year	Without New Crossing	With New Crossing	
		Dartford	Dartford	New Crossing
AM Peak Hour	2016	14,290		
	2026	15,920	12,180	7,620
	2041	16,220	13,960	8,710
Inter-Peak Hour	2016	11,340		
	2026	13,750	9,820	5,850
	2041	15,400	11,700	7,060
PM Peak Hour	2016	13,220		
	2026	15,130	11,450	6,970
	2041	16,020	12,970	7,920

The TFR presents information on which trips will remain using the Dartford Crossing and which trips will use the Lower Thames Crossing in future. It also describes the changes in flows on other parts of the network, showing which areas experience a decrease in traffic volumes and reduced levels of congestion and those areas where the volume of traffic is likely to rise.

The forecasting work undertaken using LTAM has been checked by specialist staff within Highways England while it was carried out to ensure that the work followed the DfT's guidance on preparing traffic forecasts as set out in WebTAG. They have also certified that the LTAM was built following the appropriate technical guidelines and is suitable for forecasting the changes on the performance on the strategic highway network and major local roads in the area when a new river crossing is provided between Kent and Essex.

This page is intentionally blank

Appendices

Appendix A – Uncertainty Log

Appendix B – LTC Scheme Impacts – Cross River Flow Comparisons

Appendix C – LTC Scheme Impacts – Detailed Link Based Journey Time Comparisons

Appendix D – Sensitivity Tests – Outputs to Economic Assessment

Appendix E – Sensitivity Tests – Flow Comparisons to Core Scenario

Appendix F – Sensitivity Tests – Outputs to Operational Assessment

This page is intentionally blank

Appendix A – Uncertainty Log

- A.1.1 Table A.1 provides details of the planned land use developments included in the LTAM forecasts. Table A.2 provides details of the planned Highways England transport schemes included in the LTAM forecasts. Table A.3 provides details of the planned local authority transport schemes included in the LTAM forecasts.

Table A1 – Planned Land Use Developments in LTAM

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
1	Land at Nether Mayne, Kingswood	C3-Dwelling House	725	Basildon	More than likely	363	725	725	725
2	Land at Sellers farm, Dunton Road, Laindon	C3-Dwelling House	250	Basildon	More than likely	125	250	250	250
3	Land South of Wash Road, West of Pipp's Hill Road North and East of Eastfield Road, Basildon	C3-Dwelling House	300	Basildon	More than likely	150	300	300	300
4	Land east of Tyefields, south of Burnt Mills Road, Basildon	C3-Dwelling House	870	Basildon	More than likely	435	870	870	870
5	Land at Basildon Rose Gardens Ltd, Burnt Mills Road, Basildon	C3-Dwelling House	870	Basildon	More than likely	435	870	870	870
6	Basildon zoo site, London road, Vange.	C3-Dwelling House	550	Basildon	More than likely	275	550	550	550
7	Land east of Frithwood Lane	C3-Dwelling House	525	Basildon	More than likely	263	525	525	525
8	Land east of Greens Farm Lane, west of Outwood Common Road, north of Outwood Farm Road	C3-Dwelling House	430	Basildon	More than likely	215	430	430	430
9	Craylands Estate & former Fryerns School, Craylands, Basildon	C3-Dwelling House	476	Basildon	More than likely	238	476	476	476
10	Trafford House, Station Way, Basildon	C3-Dwelling House	384	Basildon	More than likely	192	384	384	384
11	Essex Ford, Cherrydown, Basildon	C3-Dwelling House	208	Basildon	More than likely	104	208	208	208
12	Cranes Industrial Estate	B1-Business Office	6,548	Basildon	More than likely	6,548	6,548	6,548	6,548
		B2-Industry	26,190	Basildon	More than likely	26,190	26,190	26,190	26,190
		B8-Storage & Distribution	32,738	Basildon	More than likely	32,738	32,738	32,738	32,738
13	Burnt Mills	B1-Business Office	3,636	Basildon	More than likely	3,636	3,636	3,636	3,636
		B2-Industry	7,272	Basildon	More than likely	7,272	7,272	7,272	7,272
		B8-Storage & Distribution	25,452	Basildon	More than likely	25,452	25,452	25,452	25,452
14	Pipp's Hill	B2-Industry	14,400	Basildon	More than likely	14,400	14,400	14,400	14,400
		B8-Storage & Distribution	14,400	Basildon	More than likely	14,400	14,400	14,400	14,400
15	Festival Business Park	B8-Storage & Distribution	21,500	Basildon	More than likely	21,500	21,500	21,500	21,500
16	Terminus Drive Pitsea (protected under BAS E2)	B1-Business Office	5,303	Basildon	More than likely	5,303	5,303	5,303	5,303
		B2-Industry	12,373	Basildon	More than likely	12,373	12,373	12,373	12,373
		C3-Dwelling House	1,158	Basildon	More than likely	579	1,158	1,158	1,158
17	Basildon Town Centre	B1-Business Office	25,000	Basildon	More than likely	25,000	25,000	25,000	25,000
		A1-Retail	30,464	Basildon	More than likely	30,464	30,464	30,464	30,464

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
18	Wickford Town Centre	D2-Assembly and Leisure	10,000	Basildon	More than likely	10,000	10,000	10,000	10,000
		C3-Dwelling House	139	Basildon	More than likely	70	139	139	139
		B1-Business Office	500	Basildon	More than likely	500	500	500	500
		A1-Retail	15,232	Basildon	More than likely	15,232	15,232	15,232	15,232
		D2-Assembly and Leisure	500	Basildon	More than likely	500	500	500	500
19	White Bridge Farm	B8-Storage & Distribution	6,000	Basildon	More than likely	6,000	6,000	6,000	6,000
20	Annwood Lodge	B2-Industry	3,800	Basildon	More than likely	3,800	3,800	3,800	3,800
21	Norman Park, between Yarnton Way and Picardy Manorway	B8-Storage & Distribution	3,800	Basildon	More than likely	3,800	3,800	3,800	3,800
		C3-Dwelling House	402	Bexley	More than likely	402	402	402	402
		C1-Hotels	3,847	Bexley	More than likely	3,847	3,847	3,847	3,847
		A3-Restaurants and cafés	2,800	Bexley	More than likely	2,800	2,800	2,800	2,800
		B1(c)-Light Industry (Business Park)	2,137	Bexley	More than likely	2,137	2,137	2,137	2,137
22	Erith Park (Formerly Larmer Road Estate), Phase 2, Larmer Road	D1-Non-residential Institutions	832	Bexley	More than likely	832	832	832	832
23	Erith Quarry, Phase 1, Fraser Road	C3-Dwelling House	244	Bexley	Near Certain	244	244	244	244
		C3-Dwelling House	600	Bexley	More than likely	600	600	600	600
		D1-Non-residential Institutions	3,670	Bexley	More than likely	3,670	3,670	3,670	3,670
24	Former Linpac Site And Adjoining Warehouse, Richmer Road	C3-Dwelling House	336	Bexley	More than likely	336	336	336	336
25	Land At Southmere Village, Yarnton Way	C3-Dwelling House	525	Bexley	Near Certain	525	525	525	525
		A1-Retail	2,316	Bexley	Near Certain	2,316	2,316	2,316	2,316
		A2-Financial and Professional Services	2,316	Bexley	Near Certain	2,316	2,316	2,316	2,316
		A3-Restaurants and cafés	1,014	Bexley	Near Certain	1,014	1,014	1,014	1,014
		B1-Business Office	2,316	Bexley	Near Certain	2,316	2,316	2,316	2,316
26		D1-Non-residential Institutions	1,207	Bexley	Near Certain	1,207	1,207	1,207	1,207
		D2-Assembly and Leisure	747	Bexley	Near Certain	747	747	747	747
		C3-Dwelling House	219	Bexley	More than likely	219	219	219	219

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
	Land West Of Sedgemere Road And East Of Harrow Manorway	A1-Retail	1,625	Bexley	More than likely	1,625	1,625	1,625	1,625
		B1-Business Office	1,600	Bexley	More than likely	1,600	1,600	1,600	1,600
27	Land At Binsey Walk	C3-Dwelling House	329	Bexley	More than likely	329	329	329	329
		C3-Dwelling House	549	Bexley	More than likely	549	549	549	549
28	Land At Coralline Walk, Harrow Manorway	A1-Retail	1,100	Bexley	More than likely	1,100	1,100	1,100	1,100
		B1-Business Office	1,100	Bexley	More than likely	1,100	1,100	1,100	1,100
		D1-Non-residential Institutions	1,025	Bexley	More than likely	1,025	1,025	1,025	1,025
29	Electbase lands, Maxim Road	C3-Dwelling House	359	Bexley	More than likely	359	359	359	359
30	Thames House, Thames Road	B8-Storage & Distribution	12,994	Bexley	Near Certain	12,994	12,994	12,994	12,994
31	Block D, Norman Park between Yarnton Way and Picardy Manorway	A3-Restaurants and cafés	2,011	Bexley	Near Certain	2,011	2,011	2,011	2,011
32	Coca Cola & Schweppes Beverages Ltd, Cray Road	B2-Industry	9,898	Bexley	Near Certain	9,898	9,898	9,898	9,898
33	5 Centurion Way	B2-Industry	2,250	Bexley	Near Certain	2,250	2,250	2,250	2,250
		B8-Storage & Distribution	2,257	Bexley	Near Certain	2,257	2,257	2,257	2,257
34	Danson Primary School, Danson Lane	D1-Non-residential Institutions	4,427	Bexley	Near Certain	4,427	4,427	4,427	4,427
		B1(c)-Light Industry (Business Park)	3,230	Bexley	Near Certain	3,230	3,230	3,230	3,230
35	Land At Former Nufarm Uk Ltd Site, Crabtree Manorway North	B2-Industry	3,230	Bexley	Near Certain	3,230	3,230	3,230	3,230
		B8-Storage & Distribution	3,231	Bexley	Near Certain	3,231	3,231	3,231	3,231
36	20 Broadway	A1-Retail	2,865	Bexley	Near Certain	2,865	2,865	2,865	2,865
37	Lidl, 46-60 Upper Wickham Lane	A1-Retail	3,240	Bexley	Near Certain	3,240	3,240	3,240	3,240
38	Christ Church (Church Of England) Primary School, Lesney Park Road	D1-Non-residential Institutions	3,528	Bexley	Near Certain	3,528	3,528	3,528	3,528
39	Land Part Of Borax Works, Norman Road	B8-Storage & Distribution	30,100	Bexley	More than likely	30,100	30,100	30,100	30,100
		B1(c)-Light Industry (Business Park)	4,161	Bexley	Near Certain	4,161	4,161	4,161	4,161
40	Land Between Crabtree Manorway North And Bronze Age Way, Crabtree Manorway North	B2-Industry	4,161	Bexley	Near Certain	4,161	4,161	4,161	4,161
		B8-Storage & Distribution	4,161	Bexley	Near Certain	4,161	4,161	4,161	4,161
41	Hook Lane Primary School, Churchfield Road	D1-Non-residential Institutions	2,368	Bexley	Near Certain	2,368	2,368	2,368	2,368

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
42	Queen Marys Hospital, Frogna Avenue	H-Healthcare	3,287	Bexley	Near Certain	3,287	3,287	3,287	3,287
43	Former Nufarm UK Ltd, Crabtree Manorway North	Sui Generis	18,572	Bexley	Near Certain	18,572	18,572	18,572	18,572
44	West Horndon Industrial Estates, Childerditch Lane and Station Road, West Horndon (ref 20/21/152)	C3-Dwelling House	580	Brentwood	More than likely	300	580	580	580
45	Dunton Hills Garden Village (ref 200)	C3-Dwelling House	3,500	Brentwood	More than likely	750	2,500	3,500	3,500
46	Land at East Horndon (ref 187)	B1-Business Office	9,600	Brentwood	More than likely	4,800	9,600	9,600	9,600
		B8-Storage & Distribution	9,600	Brentwood	More than likely	4,800	9,600	9,600	9,600
47	Trinity Village, Blue Circel Sports Ground, Crown Lane	C3-Dwelling House	788	Bromley	Near Certain	788	788	788	788
		C3-Dwelling House	180	Bromley	Near Certain	180	180	180	180
48	Crystal Palace Park	A1-Retail	6,298	Bromley	Near Certain	6,298	6,298	6,298	6,298
		D1-Non-residential Institutions	830	Bromley	Near Certain	830	830	830	830
49	Trinity Village, Blue Circel Sports Ground, Phases 2-4	D2-Assembly and Leisure	14,500	Bromley	Near Certain	14,500	14,500	14,500	14,500
		C3-Dwelling House	413	Bromley	Near Certain	413	413	413	413
		C3-Dwelling House	200	Bromley	Near Certain	200	200	200	200
50	Multistorey Car Park, Bromley South Central, Simpsons Road	A3-Restaurants and cafés	2,629	Bromley	Near Certain	2,629	2,629	2,629	2,629
		C1-Hotels	4,800	Bromley	Near Certain	4,800	4,800	4,800	4,800
		D2-Assembly and Leisure	2,708	Bromley	Near Certain	2,708	2,708	2,708	2,708
51	Orchard Lodge, William Booth Road	C3-Dwelling House	252	Bromley	Near Certain	252	252	252	252
		A3-Restaurants and cafés	700	Castle Point	More than Likely	420	700	700	700
		B1(c)-Light Industry (Business Park)	6,400	Castle Point	More than Likely	3,840	6,400	6,400	6,400
52	Land south of Roscommon Way, Canvey Island	B2-Industry	12,000	Castle Point	More than Likely	7,200	12,000	12,000	12,000
		B8-Storage & Distribution	6,300	Castle Point	More than Likely	3,780	6,300	6,300	6,300
		Sui Generis	909	Castle Point	More than Likely	545	909	909	909
		B1-Business Office	9,000	Castle Point	More than Likely	5,400	9,000	9,000	9,000
		B2-Industry	4,600	Castle Point	More than Likely	2,760	4,600	4,600	4,600
53	Land Opposite Morrisons Northwick Road Canvey Island Essex	B8-Storage & Distribution	10,000	Castle Point	More than Likely	6,000	10,000	10,000	10,000
		C1-Hotels	2,300	Castle Point	More than Likely	1,380	2,300	2,300	2,300

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
		Sui Generis	3,000	Castle Point	More than Likely	1,800	3,000	3,000	3,000
54	Dartford Town Centre and Northern Gateway	C3-Dwelling House A2-Financial and Professional Services	2,270	Dartford	More than likely	420	1,570	2,270	2,270
55	Northern Gateway	C3-Dwelling House	570	Dartford	More than likely	570	570	570	570
56	Bluewater	A1-Retail	30,500	Dartford	More than likely	30,500	30,500	30,500	30,500
57	Northern Gateway East and Mill Pond	C3-Dwelling House	750	Dartford	More than likely	750	750	750	750
58	Northern Gateway - GSK North Site	A1-Retail B2-Industry	1,500 23,000	Dartford	More than likely	1,500 23,000	1,500 23,000	1,500 23,000	1,500 23,000
59	The Bridge	C3-Dwelling House B1(c)-Light Industry (Business Park)	450 91,000	Dartford	More than likely	450 91,000	450 91,000	450 91,000	450 91,000
		C3-Dwelling House	931	Dartford	More than likely	450	931	931	931
		C3-Dwelling House	271	Dartford	More than likely	81	135	135	135
60	Ebbfleet - Station Quarter North	A3-Restaurants and cafés B1-Business Office D1-Non-residential Institutions	12,000 182,657 2,000	Dartford	More than likely	7,200 109,594 1,200	12,000 182,657 2,000	12,000 182,657 2,000	12,000 182,657 2,000
		D2-Assembly and Leisure	17,191	Dartford	More than likely	10,315	17,191	17,191	17,191
		C1-Hotels	9,032	Dartford	More than likely	5,419	9,032	9,032	9,032
		C3-Dwelling House	1,390	Dartford	More than likely	800	1,390	1,390	1,390
		B1-Business Office	61,035	Dartford	More than likely	36,621	61,035	61,035	61,035
61	Ebbfleet - Station Quarter South	A3-Restaurants and cafés D2-Assembly and Leisure D1-Non-residential Institutions	3,500 18,195 2,500	Dartford	More than likely	2,100 10,917 1,500	3,500 18,195 2,500	3,500 18,195 2,500	3,500 18,195 2,500
		C3-Dwelling House	6,130	Dartford	More than likely	2,650	6,130	6,130	6,130
		C3-Dwelling House	330	Dartford	Near Certain	330	330	330	330
62	Eastern Quarry	B1-Business Office	120,000	Dartford	Near Certain	60,000	120,000	120,000	120,000
		A1-Retail	26,000	Dartford	Near Certain	13,000	26,000	26,000	26,000

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
		D2-Assembly and Leisure	50,000	Dartford	Near Certain	25,000	50,000	50,000	50,000
		C1-Hotels	11,000	Dartford	Near Certain	5,500	11,000	11,000	11,000
		D2-Assembly and Leisure	24,000	Dartford	Near Certain	12,000	24,000	24,000	24,000
		C3-Dwelling House	950	Dartford	More than likely	950	950	950	950
		C3-Dwelling House	150	Dartford	Near Certain	75	75	75	75
		C1-Hotels	5,000	Dartford	Near Certain	5,000	5,000	5,000	5,000
63	Northfleet West Substation/Ebbsfleet Green	D1-Non-residential Institutions	1,758	Dartford	Near Certain	1,758	1,758	1,758	1,758
		A1-Retail	339	Dartford	Near Certain	339	339	339	339
		A3-Restaurants and cafés	920	Dartford	Near Certain	920	920	920	920
64	St James Lane Pit	C3-Dwelling House	850	Dartford	Near Certain	850	850	850	850
65	Stone	C3-Dwelling House	200	Dartford	Near certain	200	200	200	200
66	Crossways	B2-Industry	102,000	Dartford	Near Certain	102,000	102,000	102,000	102,000
67	Lowfield St	C3-Dwelling House	690	Dartford	Near Certain	690	690	690	690
68	Littlebrook Power Station	B8-Storage & Distribution	43,400	Dartford	Near Certain	43,400	43,400	43,400	43,400
69	Swanscombe Peninsula (includes Croxton Garry)	C3-Dwelling House	800	Dartford	Near Certain	800	800	800	800
		B2-Industry	2,300	Dartford	More than likely	2,300	2,300	2,300	2,300
70	Ebbsfleet Valley (excluding NRQ)	C3-Dwelling House	484	Gravesham	More than likely	484	484	484	484
		A1-Retail	2,040	Gravesham	More than likely	2,040	2,040	2,040	2,040
71	Ebbsfleet: Northfleet Rise Quarter-Post GBC Core Strategy	B1-Business Office	102,000	Gravesham	More than likely	102,000	102,000	102,000	102,000
		D1-Non-residential Institutions	5,950	Gravesham	More than likely	5,950	5,950	5,950	5,950
		C1-Hotels	9,000	Gravesham	More than likely	9,000	9,000	9,000	9,000
		C3-Dwelling House	532	Gravesham	More than likely	525	532	532	532
		B1-Business Office	5,355	Gravesham	More than likely	5,355	5,355	5,355	5,355
72	Northfleet Embankment West: Former Cement Works	B1(c)-Light Industry (Business Park)	11,248	Gravesham	More than likely	11,248	11,248	11,248	11,248
		B2-Industry	11,248	Gravesham	More than likely	11,248	11,248	11,248	11,248
		B8-Storage & Distribution	11,248	Gravesham	More than likely	11,248	11,248	11,248	11,248

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
73	Land at Coldharbour Road	A1-Retail	723	Gravesham	More than likely	723	723	723	723
		A2-Financial and Professional Services	425	Gravesham	More than likely	425	425	425	425
		C3-Dwelling House	400	Gravesham	More than likely	400	400	400	400
		C3-Dwelling House	328	Gravesham	More than likely	328	328	328	328
		A1-Retail	6,239	Gravesham	More than likely	6,239	6,239	6,239	6,239
74	Gravesend Town Centre: Heritage Quarter	A3-Restaurants and cafés	1,352	Gravesham	More than likely	1,352	1,352	1,352	1,352
		B1-Business Office	255	Gravesham	More than likely	255	255	255	255
		C1-Hotels	1,400	Gravesham	More than likely	1,400	1,400	1,400	1,400
		C3-Dwelling House	130	Gravesham	More than likely	130	130	130	130
		B2-Industry	14,935	Gravesham	More than likely	14,935	14,935	14,935	14,935
75	Northeast Gravesend	D2-Assembly and Leisure	3,400	Gravesham	More than likely	3,400	3,400	3,400	3,400
		C3-Dwelling House	650	Gravesham	More than likely	300	650	650	650
		B1(c)-Light Industry (Business Park)	3,653	Gravesham	More than likely	3,653	3,653	3,653	3,653
		B1-Business Office	303	Gravesham	More than likely	303	303	303	303
		A1-Retail	267	Gravesham	More than likely	267	267	267	267
76	Canal Basin	A2-Financial and Professional Services	267	Gravesham	More than likely	267	267	267	267
		A3-Restaurants and cafés	267	Gravesham	More than likely	267	267	267	267
		D1-Non-residential Institutions	303	Gravesham	More than likely	303	303	303	303
		D2-Assembly and Leisure	303	Gravesham	More than likely	303	303	303	303
		C3-Dwelling House	700	Gravesham	More than likely	525	700	700	700
77	Northfleet Embankment East - SEEDA Masterplan Procurement Doc	A3-Restaurants and cafés	440	Gravesham	More than likely	440	440	440	440
		B1-Business Office	2,700	Gravesham	More than likely	2,700	2,700	2,700	2,700
		B1(c)-Light Industry (Business Park)	3,610	Gravesham	More than likely	3,610	3,610	3,610	3,610
		B2-Industry	8,318	Gravesham	More than likely	8,318	8,318	8,318	8,318
		B8-Storage & Distribution	2,341	Gravesham	More than likely	2,341	2,341	2,341	2,341
79	Land at Grove Road	C3-Dwelling House	200	Gravesham	More than likely	0	200	200	200

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
80	Rest of Gravesend Town Centre	B1-Business Office	4,565	Gravesend	More than likely	4,565	4,565	4,565	4,565
81	Land at Coldharbour Rd	B1-Business Office	2,384	Gravesend	More than likely	2,384	2,384	2,384	2,384
		B1(c)-Light Industry (Business Park)	1,910						
82	Harold Wood Hospital Phase 2A and 4A and 2B	C3-Dwelling House	282	Havering	Near Certain	282	282	282	282
83	Angel Way Retail Park	C3-Dwelling House	350	Havering	Near Certain	350	350	350	350
		C1-Hotels	2,100						
84	Former Somerfield Depot	A1-Retail	3,800	Havering	Near Certain	3,800	3,800	3,800	3,800
		C3-Dwelling House	497						
85	St Georges Hospital	C3-Dwelling House	279	Havering	Near Certain	279	279	279	279
86	Dover's Corner	C3-Dwelling House	394	Havering	Near Certain	394	394	394	394
87	Beverley Bungalow, North Road	D2-Assembly and Leisure	3,390	Havering	Near Certain	3,390	3,390	3,390	3,390
88	Land West Of Fairview Industrial Park, off Marsh Way	B2-Industry	5,270	Havering	Near Certain	5,270	5,270	5,270	5,270
89	Denver Industrial Estate	B1-Business Office	54,400	Havering	Near Certain	54,400	54,400	54,400	54,400
		B2-Industry	54,300						
90	Unit 25 Beam Reach 8c Rainham	B8-Storage & Distribution	54,300	Havering	Near Certain	54,300	54,300	54,300	54,300
		B1(c)-Light Industry (Business Park)	2,350						
91	Units 11-12 Stafford Industrial Estate Hillman Close Hornchurch	B2-Industry	2,300	Havering	Near Certain	2,300	2,300	2,300	2,300
		B8-Storage & Distribution	2,400						
92	22 Lamson Road Rainham	B1-Business Office	1,140	Havering	Near Certain	1,140	1,140	1,140	1,140
		B2-Industry	1,130						
93	Plot 10&11 Beam Reach 5 Business Park Consul Avenue	B8-Storage & Distribution	1,130	Havering	Near Certain	1,130	1,130	1,130	1,130
		B1(c)-Light Industry (Business Park)	4,000						
93	Plot 10&11 Beam Reach 5 Business Park Consul Avenue	B2-Industry	4,000	Havering	Near Certain	4,000	4,000	4,000	4,000
		B1(c)-Light Industry (Business Park)	5,510						
		B2-Industry	5,510	Havering	Near Certain	5,510	5,510	5,510	5,510
		B8-Storage & Distribution	5,510	Havering	Near Certain	5,510	5,510	5,510	5,510

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
94	The Broxhill Centre Broxhill Road Havering-atte-Bower Romford RM4 1XN	D2-Assembly and Leisure	63,900	Havering	Near Certain	63,900	63,900	63,900	63,900
95	Site At Romford Ice Rink	C3-Dwelling House	71	Havering	Near Certain	71	71	71	71
96	Car Park Associated With Chaucer House, leisure centre	A1-Retail	5,200	Havering	Near Certain	5,200	5,200	5,200	5,200
97	Liberty Shopping Centre, 44-52	D2-Assembly and Leisure	6,700	Havering	Near Certain	6,700	6,700	6,700	6,700
98	East of Hermitage Lane	A1-Retail	10,528	Havering	Near Certain	10,528	10,528	10,528	10,528
99	West of hermitage Lane	C3-Dwelling House	500	Maidstone	Near Certain	300	450	500	500
100	Langley Park, Sutton Road, Boughton Monchelsea	C3-Dwelling House	250	Maidstone	Near Certain	150	225	250	250
101	North of Sutton Road	C3-Dwelling House	600	Maidstone	Near Certain	360	540	600	600
102	North of Bicknor Wood, Gore Court Road	A1-Retail	1,300	Maidstone	Near Certain	780	1,170	1,300	1,300
103	Bicknor farm, Sutton Road	C3-Dwelling House	286	Maidstone	Near Certain	172	257	286	286
104	South of Sutton Road, Langley	C3-Dwelling House	250	Maidstone	More than likely	150	225	250	250
105	Springfield, Royal Engineers Road and Mill Lane, Maidstone	C3-Dwelling House	271	Maidstone	Near Certain	163	244	271	271
106	Newnham Park, Bearsted Road, Maidstone	C3-Dwelling House	800	Maidstone	More than likely	480	720	800	800
107	Eclipse Park, Sittingbourne Rd, Maidstone (Waitrose)	C3-Dwelling House	692	Maidstone	More than likely	415	623	692	692
108	Land at St Mary's Island, Maritime Way, Chatham Maritime	A1-Retail	14,300	Maidstone	Near Certain	8,580	12,870	14,300	14,300
109	Mid Kent College, Maidstone Road	H-Healthcare	100,000	Maidstone	Near Certain	60,000	90,000	100,000	100,000
110	Colonial Mutual House, Quayside, Chatham Maritime	A1-Retail	3,900	Maidstone	Near Certain	2,340	3,510	3,900	3,900
111	Former Kitchener Barracks, Dock Road, Chatham	C3-Dwelling House	324	Medway	Near Certain	324	324	324	324
112	Rochester Riverside, Corporation Street, Rochester	C3-Dwelling House	265	Medway	Near Certain	265	265	265	265
113	Mackays Lordswood Industrial Estate	C3-Dwelling House	253	Medway	Near Certain	253	253	253	253
114	Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	C3-Dwelling House	267	Medway	Near Certain	267	267	267	267
		C3-Dwelling House	1,300	Medway	Near Certain	910	1,300	1,300	1,300
		B1-Business Office	2,415	Medway	Near Certain	2,415	2,415	2,415	2,415
		B2-Industry	2,415	Medway	Near Certain	2,415	2,415	2,415	2,415
		B8-Storage & Distribution	2,415	Medway	Near Certain	2,415	2,415	2,415	2,415
		C3-Dwelling House	450	Sevenoaks	Near certain	450	450	450	450
		C1-Hotels	2,856	Sevenoaks	Near certain	2,856	2,856	2,856	2,856

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
		A1-Retail	510	Sevenoaks	Near certain	510	510	510	510
		D1-Non-residential Institutions	2,635	Sevenoaks	Near certain	2,635	2,635	2,635	2,635
		D2-Assembly and Leisure	255	Sevenoaks	Near certain	255	255	255	255
		B1-Business Office	11,900	Sevenoaks	Near certain	11,900	11,900	11,900	11,900
		B2-Industry	11,050	Sevenoaks	Near certain	11,050	11,050	11,050	11,050
115	Land North Of Railway Line And West Of St Johns Way St Johns Way Edenbridge KENT	C3-Dwelling House	300	Sevenoaks	More than likely	300	300	300	300
116	West Kent Cold Storage Rye Lane Dunton Green Sevenoaks Kent TN14 5HD	C3-Dwelling House	500	Sevenoaks	Near certain	500	500	500	500
		B1-Business Office	2,300	Sevenoaks	Near certain	2,300	2,300	2,300	2,300
		D1-Non-residential Institutions	460	Sevenoaks	Near certain	460	460	460	460
117	Land West of Enterprise Way, Edenbridge	C3-Dwelling House	276	Sevenoaks	Near certain	276	276	276	276
118	Aveley Village Extension, South of Aveley Bypass, Aveley	C3-Dwelling House	340	Thurrock	Near Certain	104	340	340	340
119	Bata Field, East Tilbury	C3-Dwelling House	299	Thurrock	Near Certain	239	299	299	299
120	Land at Thurrock Technical College, Wood View, Grays	C3-Dwelling House	362	Thurrock	Near Certain	116	362	362	362
121	Arisdale Industrial Estate (remainder), South Ockendon	C3-Dwelling House	373	Thurrock	Near Certain	373	373	373	373
122	Land at St Cleres golf club Stanford-le-Hope	C3-Dwelling House	350	Thurrock	Near Certain	279	350	350	350
		C3-Dwelling House	3,000	Thurrock	Near Certain	375	3,000	3,000	3,000
		A1-Retail	6,900	Thurrock	Near Certain	6,900	6,900	6,900	6,900
		B1-Business Office	10,333	Thurrock	Near Certain	10,333	10,333	10,333	10,333
123	Purfleet Centre	B2-Industry	10,333	Thurrock	Near Certain	10,333	10,333	10,333	10,333
		B8-Storage & Distribution	10,333	Thurrock	Near Certain	10,333	10,333	10,333	10,333
		C1-Hotels	3,300	Thurrock	Near Certain	3,300	3,300	3,300	3,300
		D1-Non-residential Institutions	6,500	Thurrock	Near Certain	6,500	6,500	6,500	6,500
		B1(c)-Light Industry (Business Park)	3,569	Thurrock	Near Certain	3,569	3,569	3,569	3,569
124	London Gateway Logistics Park	B2-Industry	3,295	Thurrock	Near Certain	3,295	3,295	3,295	3,295
		B8-Storage & Distribution	95,728	Thurrock	Near Certain	95,728	95,728	95,728	95,728
125	Tilbury London Distribution Park	B8-Storage & Distribution	204,820	Thurrock	Near Certain	204,820	204,820	204,820	204,820

Serial No.	Development	Land Use Type	Total Size (when completed) (Res Units or Sq.m)	Borough/District	Uncertainty	Core Scenario Phasing Assumptions (Res. Units or Sq. m)			
						2026	2031	2041	2051
126	South of West Thurrock Way/East of Euclid Way, West Thurrock (Retail/Housing/Community use)	C3-Dwelling House A1-Retail A3-Restaurants and cafés D1-Non-residential Institutions	320 6,694 950 1,026	Thurrock Thurrock Thurrock Thurrock	Near Certain Near Certain Near Certain Near Certain	320 6,694 950 1,026	320 6,694 950 1,026	320 6,694 950 1,026	320 6,694 950 1,026
127	Former Peter's Pit & Peter's Works Site Hall	C3-Dwelling House	1,000	Tonbridge&Malling	More than likely	670	1,000	1,000	1,000
128	Kings Hill Phase 3 Kings Hill West Malling Kent	C3-Dwelling House	635	Tonbridge&Malling	More than likely	450	635	635	635
129	Outline for Holborough Quarry	C3-Dwelling House	401	Tonbridge&Malling	More than likely	355	401	401	401
130	Leybourne Grange Hospital Birling Road Phase 4	C3-Dwelling House	224	Tonbridge&Malling	More than likely	224	224	224	224
131	Land South Of London Road And East Of Hermitage Lane Aylesford Kent	C3-Dwelling House	841	Tonbridge&Malling	More than likely	841	841	841	841
132	DHL Supply Chain Warehouse, 20/20 Industrial Estate, Laverstore Road, ME16 0LE	A1-Retail B8-Storage & Distribution	10,500 10,500	Tonbridge&Malling Tonbridge&Malling	More than likely More than likely	8,400 8,400	10,500 10,500	10,500 10,500	10,500 10,500
133	Former Airstation, Gibson Drive, ME19 4LX	C1-Hotel	16,048	Tonbridge&Malling	More than likely	16,048	16,048	16,048	16,048
134	Vantage Point, Holborough Road, ME6 5SL	B1-Business Office B8-Storage & Distribution	6,000 6,000	Tonbridge&Malling Tonbridge&Malling	More than likely More than likely	6,000 6,000	6,000 6,000	6,000 6,000	6,000 6,000

Table A2 – Planned Highways England Schemes in LTAM

No.	Scheme name	Scheme type	Opening date	Probability	Status of the Scheme
1	M20 Junction 10a	New junction	2020	More Than Likely	PCF Stage 3 - Preliminary design
2	Improvements to the A2/Bean and A2/Ebbsfleet junctions	Junction Improvement	2023	More Than Likely	PCF Stage 2 - Option Selection
3	A21 Tonbridge to Pembury	Carriageway widening	2017	Near certain	PCF Stage 6 - Construction, commissioning and handover
4	M20 Junctions 3 - 5 SMP	Smart Motorways	2018	More Than Likely	PCF Stage 3 - Preliminary design
5	M23 Junctions 8 - 10 SMP	Smart Motorways	2020	More Than Likely	PCF Stage 3 - Preliminary design
6	M3 Junctions 2 - 4a SMP	Smart Motorways	2017	Near certain	PCF Stage 6 - Construction, commissioning and handover
7	M4 Junctions 3 -12 SMP	Smart Motorways	2022	Near Certain	PCF Stage 4 - Statutory procedures and powers
8	M25 junction 30/A13 corridor relieving congestion*	Junction improvement	2017	Near certain	PCF Stage 6 - Construction, commissioning and handover
9	M25 Junction 2 improvements	Junction Improvement	2018	Near certain	PCF Stage 3 - Preliminary design
10	A13 North Stifford Essex	Junction Improvement	2020	Near Certain	PCF Stage 3 - Preliminary design
10	M25 Junction 25 Improvements	Junction Improvement	2022	More Than Likely	PCF Stage 3 - Preliminary design
11	M25 Junction 28 Improvement	Junction improvement	2022	More Than Likely	PCF Stage 3 - Preliminary design
12	M25 Junction 10 / A3 Wisley Interchange Improvement	Junction improvement	2022/2023	More Than Likely	PCF Stage 2 - Option Selection
13	M25 Junctions 10 -16 SMP	Smart motorway	2023	More Than Likely	PCF Stage 1- Technical Appraisal_ Option Identification
14	M2 Junction 5 Improvement	Junction improvement	2022	More Than Likely	PCF Stage 2 - Option Selection
15	A20 Access to Dover	Junction Improvement	2017	Near certain	Completed Dec 2016

* This scheme is included in the LTAM Base Plus network but not in the actual base network

Table A3 – Planned Local Authority Schemes in LTAM

No.	Scheme name	Scheme type	Opening date	Probability	Status of the Scheme
1	A13 Stanford-le-Hope bypass widening	Carriageway widening	N/A	More than likely	Funding approved, contract to be awarded soon.
2	St. Clements way, Greenhithe improvement scheme	Carriageway and junction widening	2019	More than likely	Funding approved.
3	A127 / A132 Nevendon Interchange improvement scheme	Junction improvement	2016	Near Certain	Under construction, planned to open in Winter 2016.
4	Rathmore road link, Gravesend	Carriageway and junction widening	N/A	Near Certain	Construction started in May 2016.
5	A28 Chart Road improvement scheme	Carriageway widening and junction improvement	2019	More than likely	Permitted development.
6	Maidstone Bridges Improvement Scheme	Carriageway widening and junction improvement	Dec 2016	Near Certain	Opened in December 2016.
7	M20 Junction 4 Eastern Overbridge Widening	Carriageway widening	Feb 2017	Near Certain	Opened in February 2017.
8	A289 Four Elms Roundabout to Medway Tunnel (Medway)	New Link	N/A	More than likely	Construction to start late 2017.
9	M11 J7A	Create a new junction on the M11 north of the Junction 7	2021	Near Certain	Planning permission has been approved and preparation works to start in winter 2017.
10	Silvertown tunnel	New twin bore tunnel east of Blackwall tunnel	2022/2023	More than likely	Planning application submitted/awaiting approval
11	Olympic Park Improvements	Access Improvements	2021	Near Certain	Open

Appendix B – LTC Scheme Impacts – Cross River Flow Comparisons

B.1.1 Figure B1 to B18 show the total all vehicle cross river flows (Dartford and LTC combined) for each direction for each time period for each forecast year for each of the different growth scenarios.

Figure B1 – Core Scenario – AM Southbound Cross River Flows (PCU/Hr)

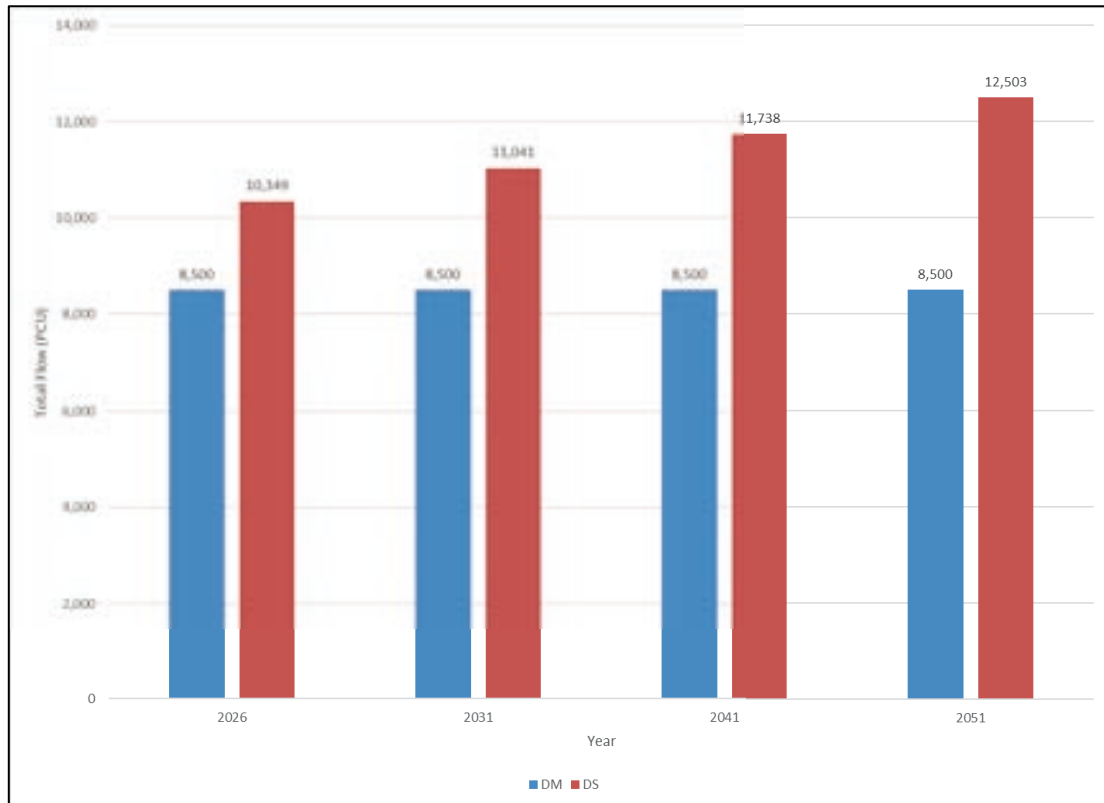


Figure B2 – Core Scenario – IP Southbound Cross River Flows (PCU/Hr)

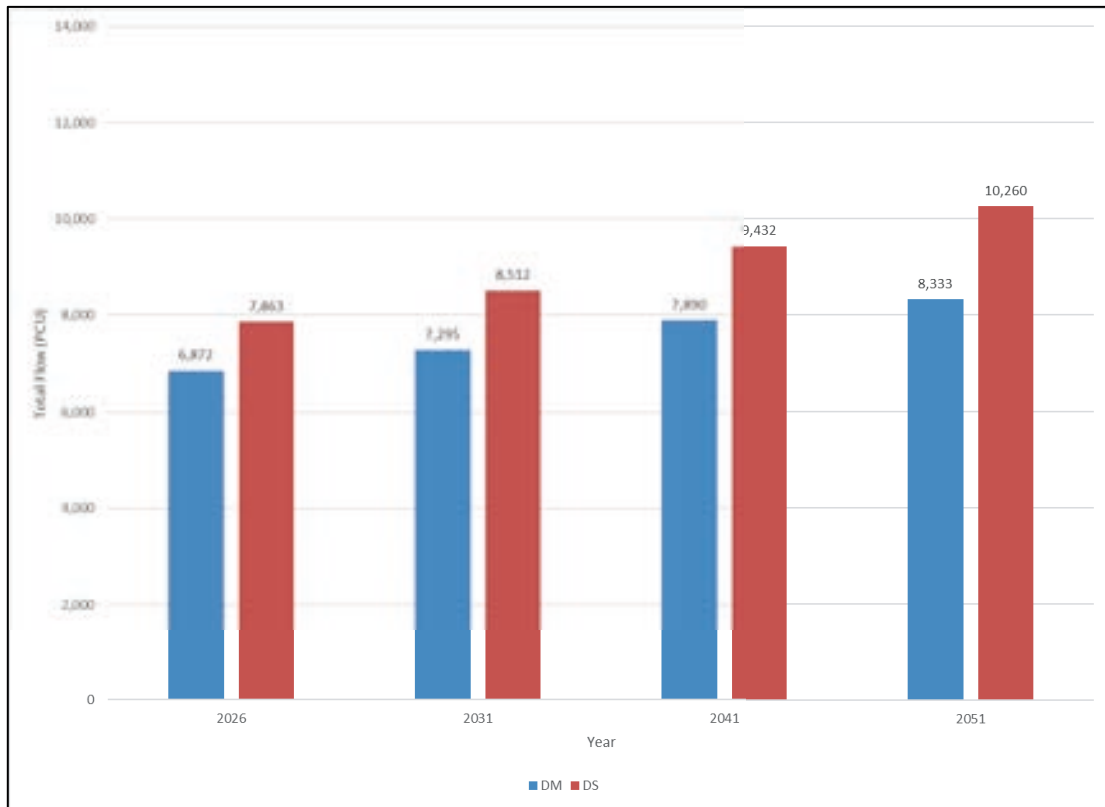


Figure B3 – Core Scenario – PM Southbound Cross River Flows (PCU/Hr)

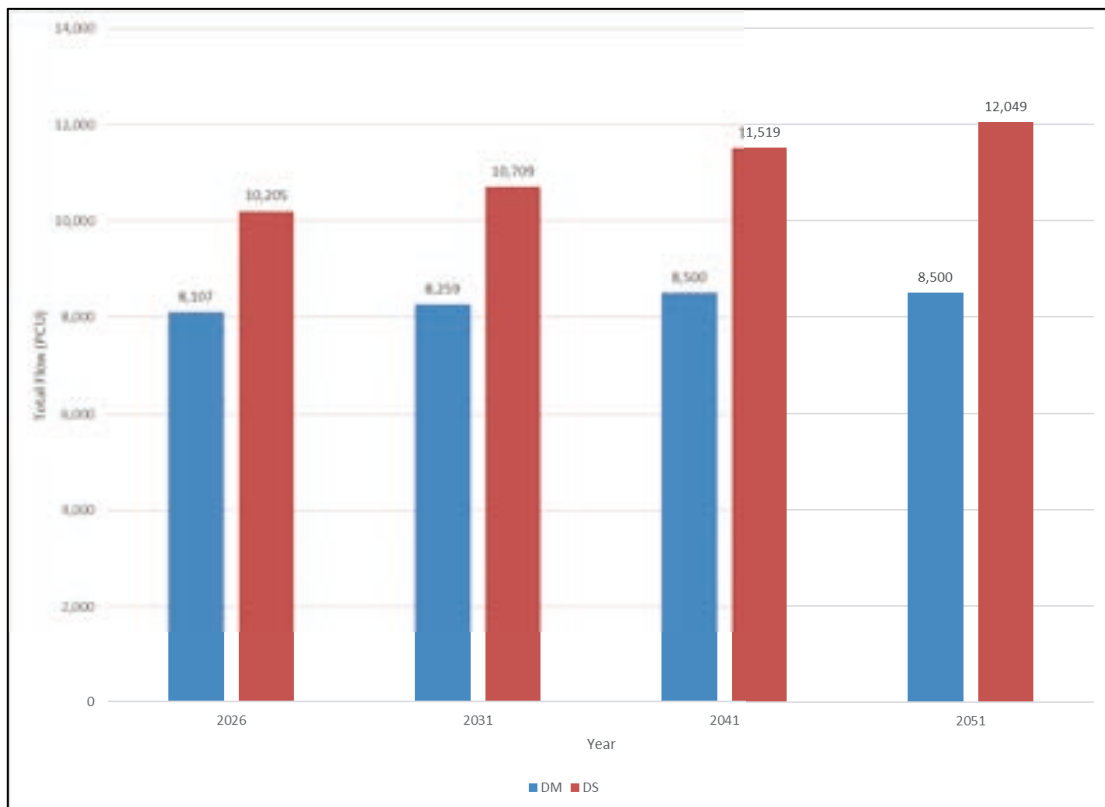


Figure B4 – Core Scenario – AM Northbound Cross River Flows (PCU/Hr)

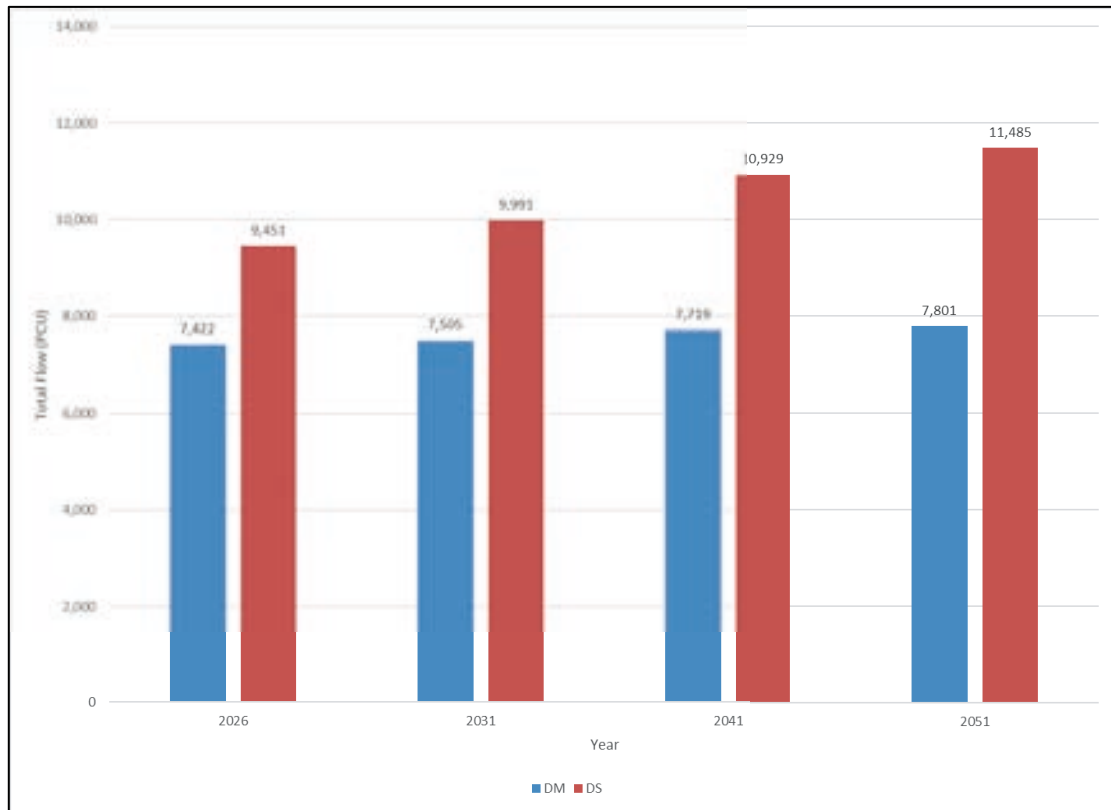


Figure B5 – Core Scenario – IP Northbound Cross River Flows (PCU/Hr)

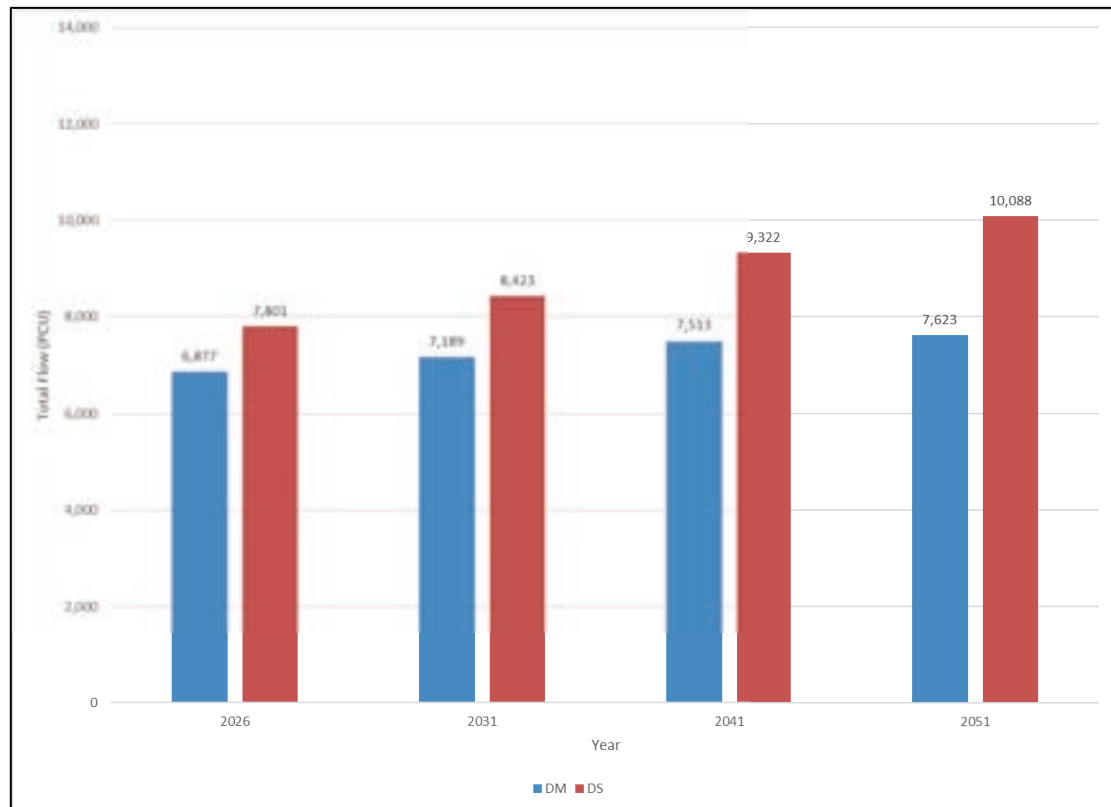


Figure B6 – Core Scenario – PM Northbound Cross River Flows (PCU/Hr)

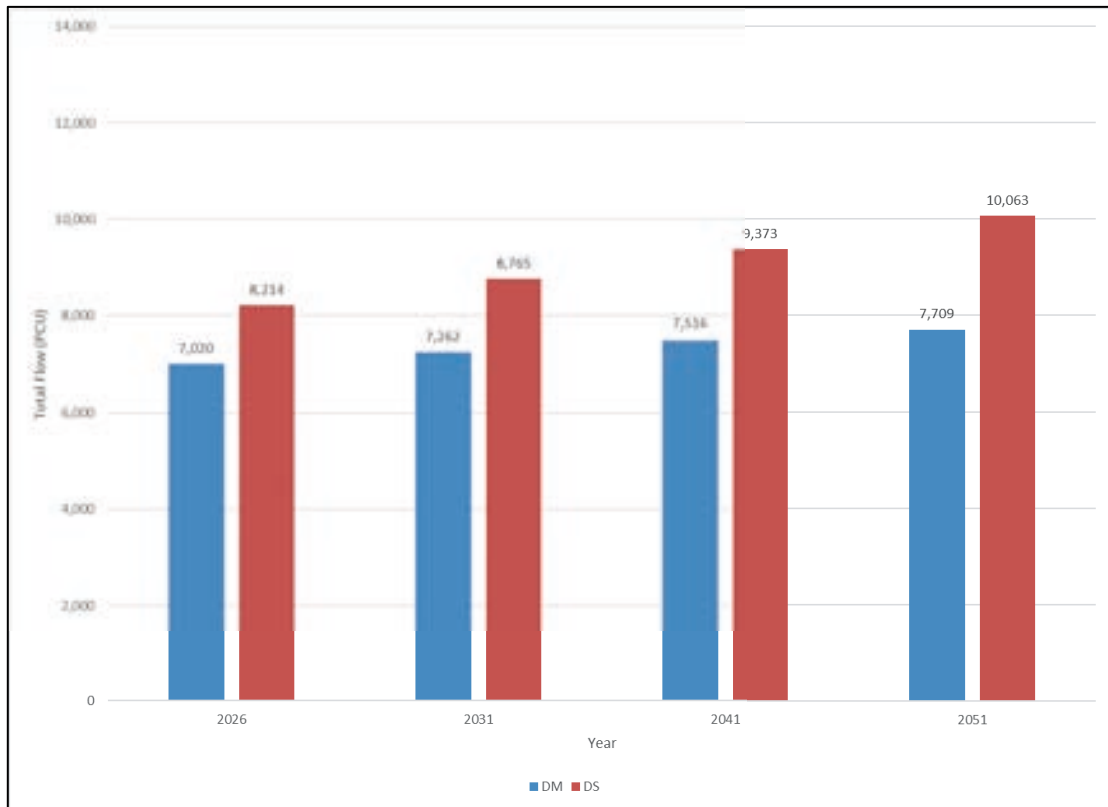


Figure B7 – Low Growth Scenario – AM Southbound Cross River Flows (PCU/Hr)

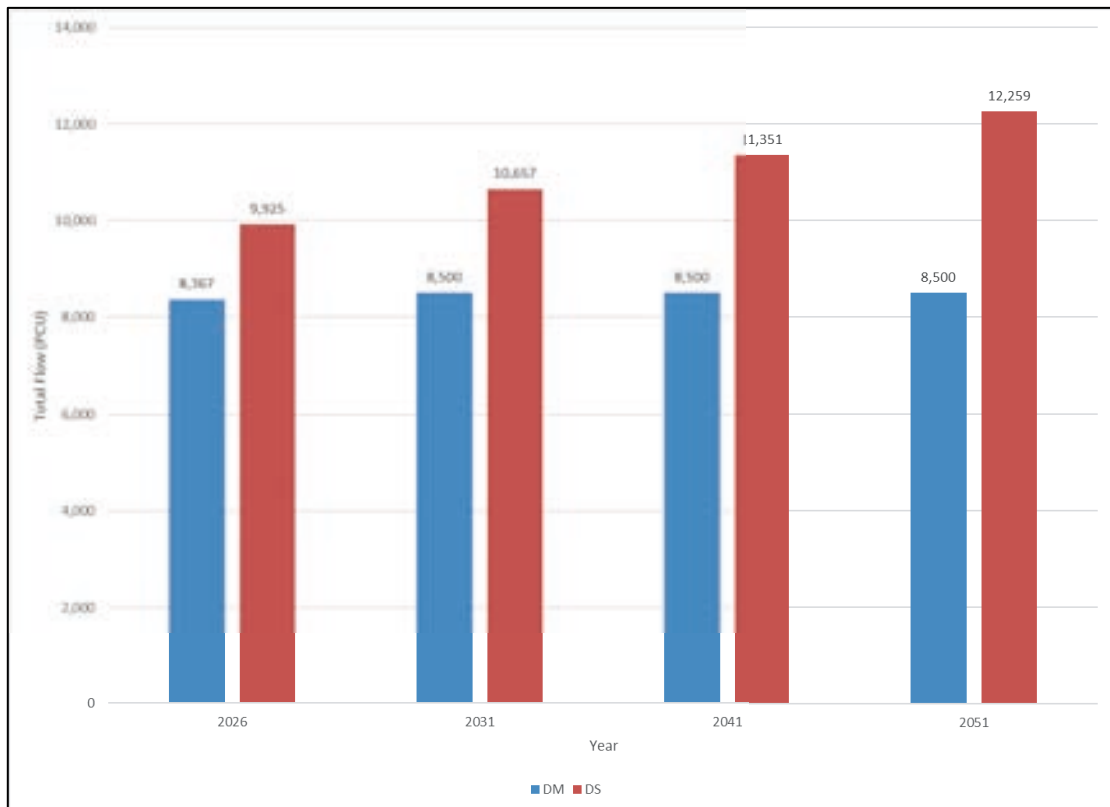


Figure B8 – Low Growth Scenario – IP Southbound Cross River Flows (PCU/Hr)

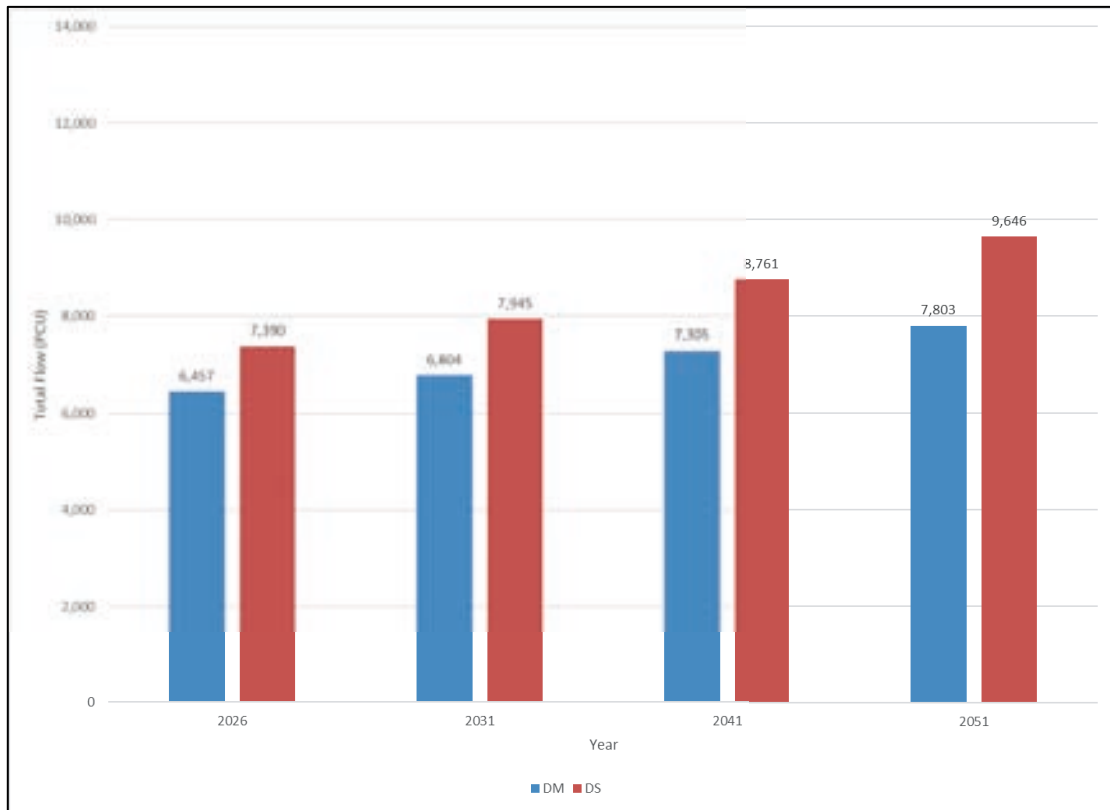


Figure B9 – Low Growth Scenario – PM Southbound Cross River Flows (PCU/Hr)

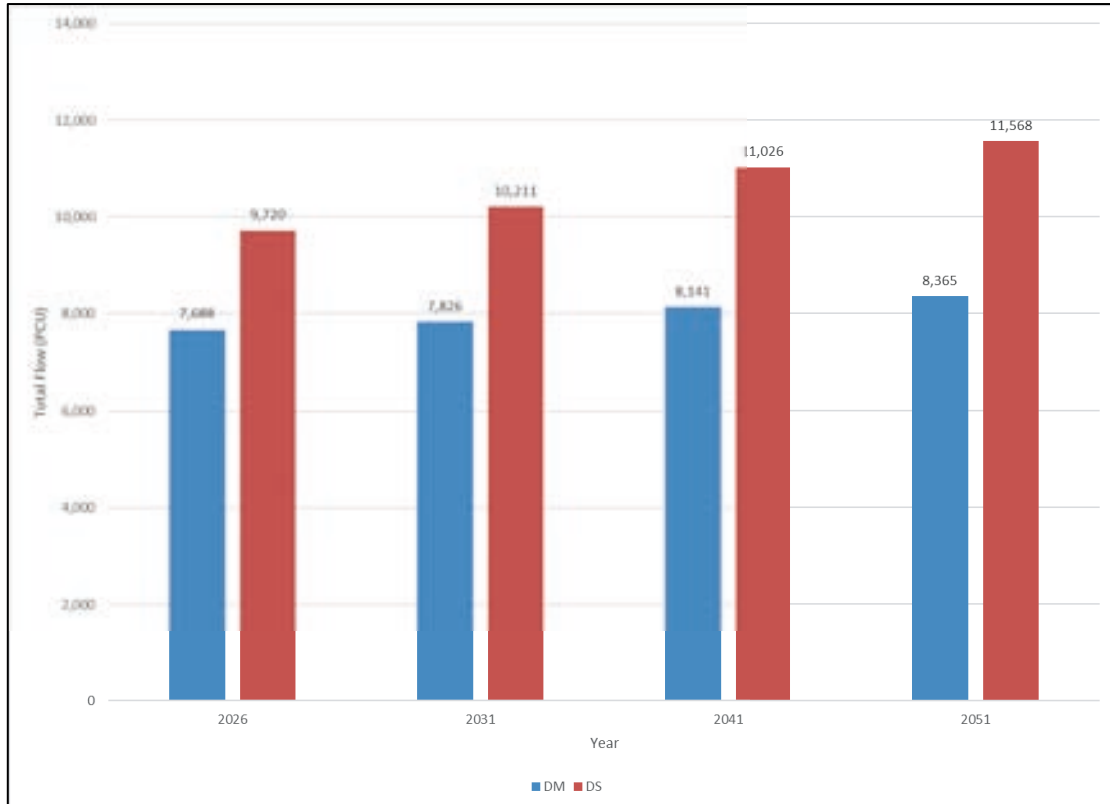


Figure B10 – Low Growth Scenario – AM Northbound Cross River Flows (PCU/Hr)

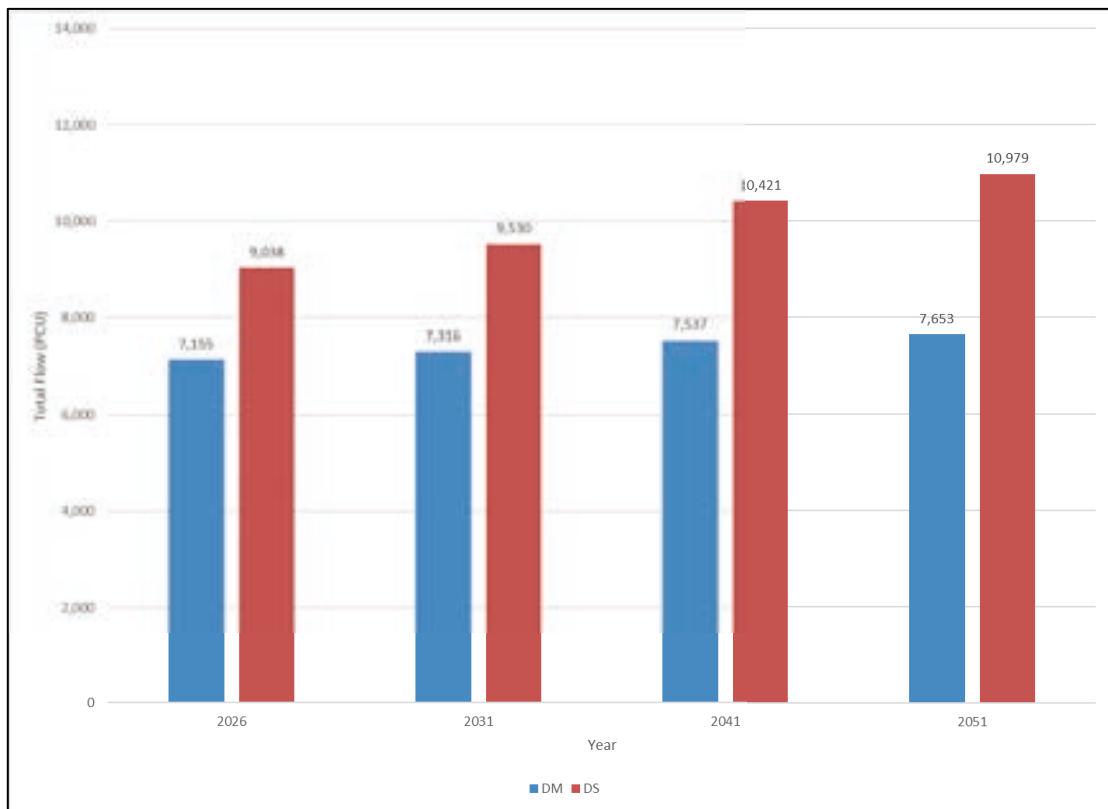


Figure B11 – Low Growth Scenario – IP Northbound Cross River Flows (PCU/Hr)

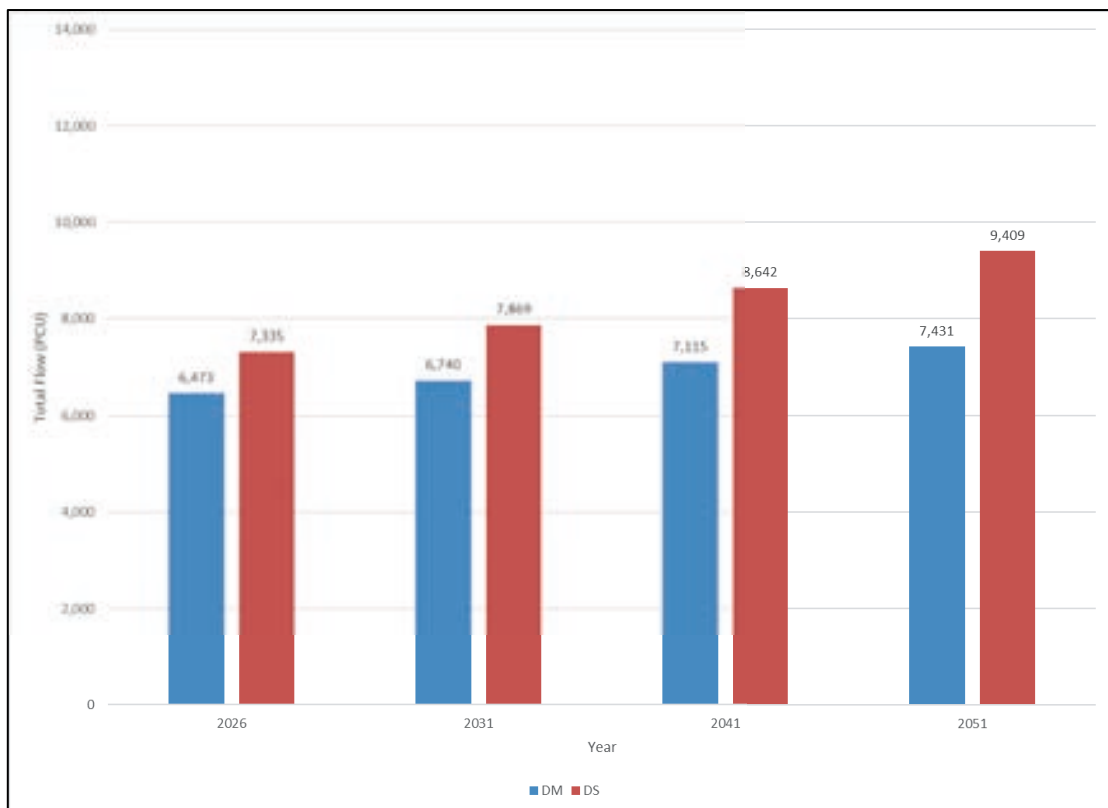


Figure B12 – Low Growth Scenario – PM Northbound Cross River Flows (PCU/Hr)

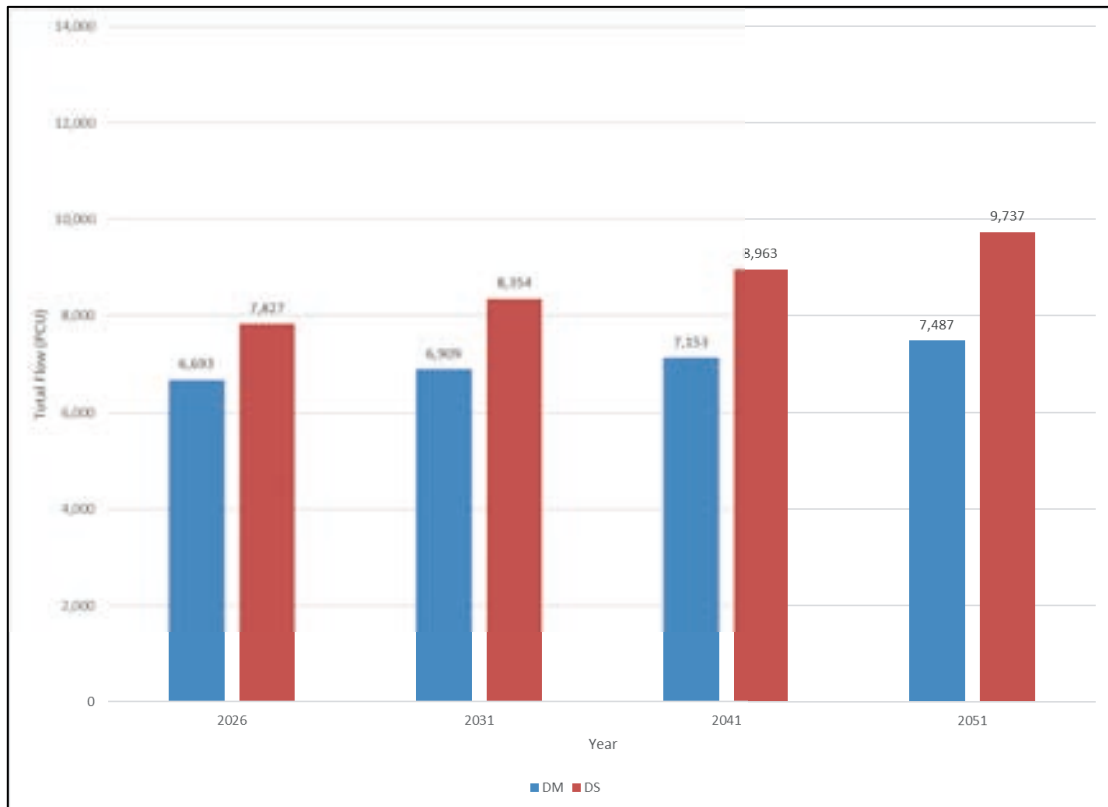


Figure B13 – High Growth Scenario – AM Southbound Cross River Flows (PCU/Hr)

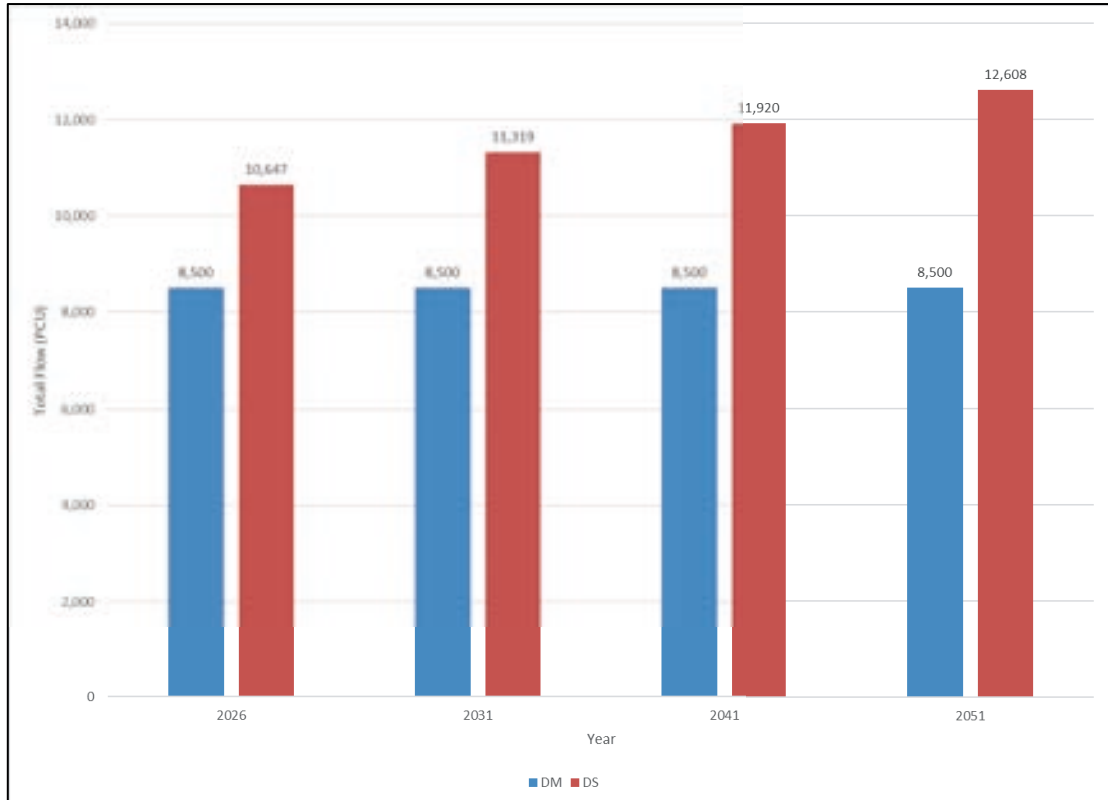


Figure B14 – High Growth Scenario – IP Southbound Cross River Flows (PCU/Hr)

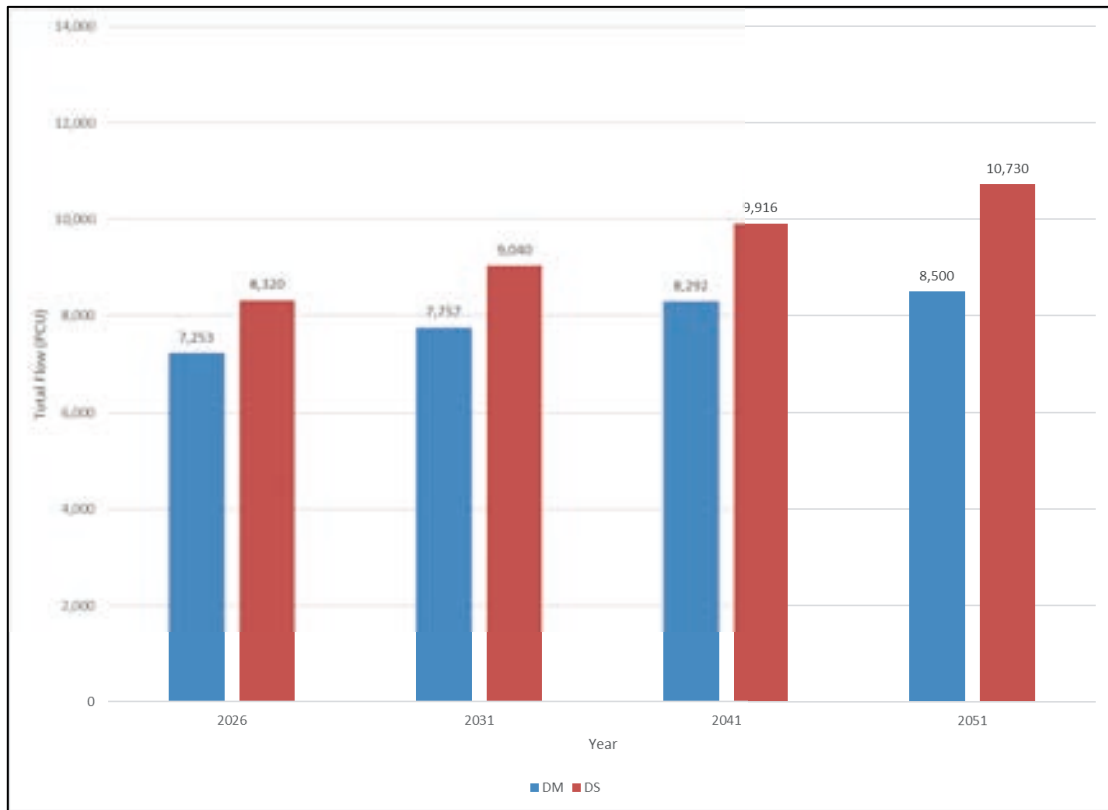


Figure B15 – High Growth Scenario – PM Southbound Cross River Flows (PCU/Hr)

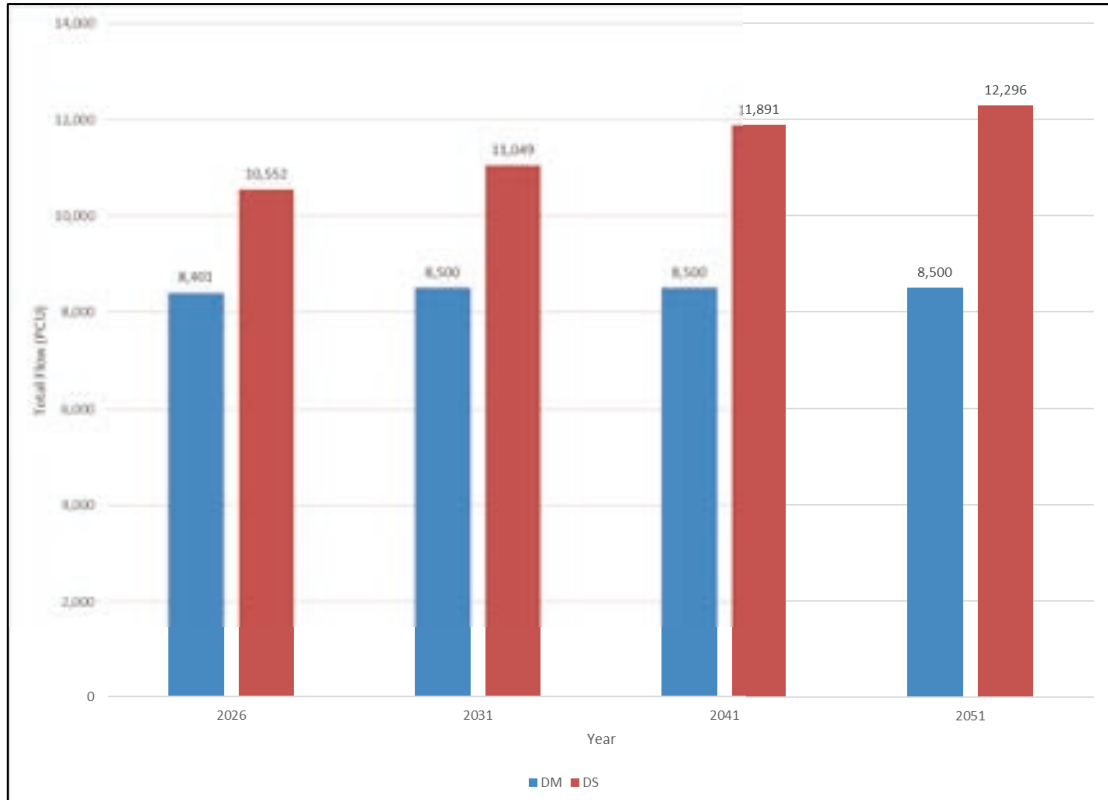


Figure B16 – High Growth Scenario – AM Northbound Cross River Flows (PCU/Hr)

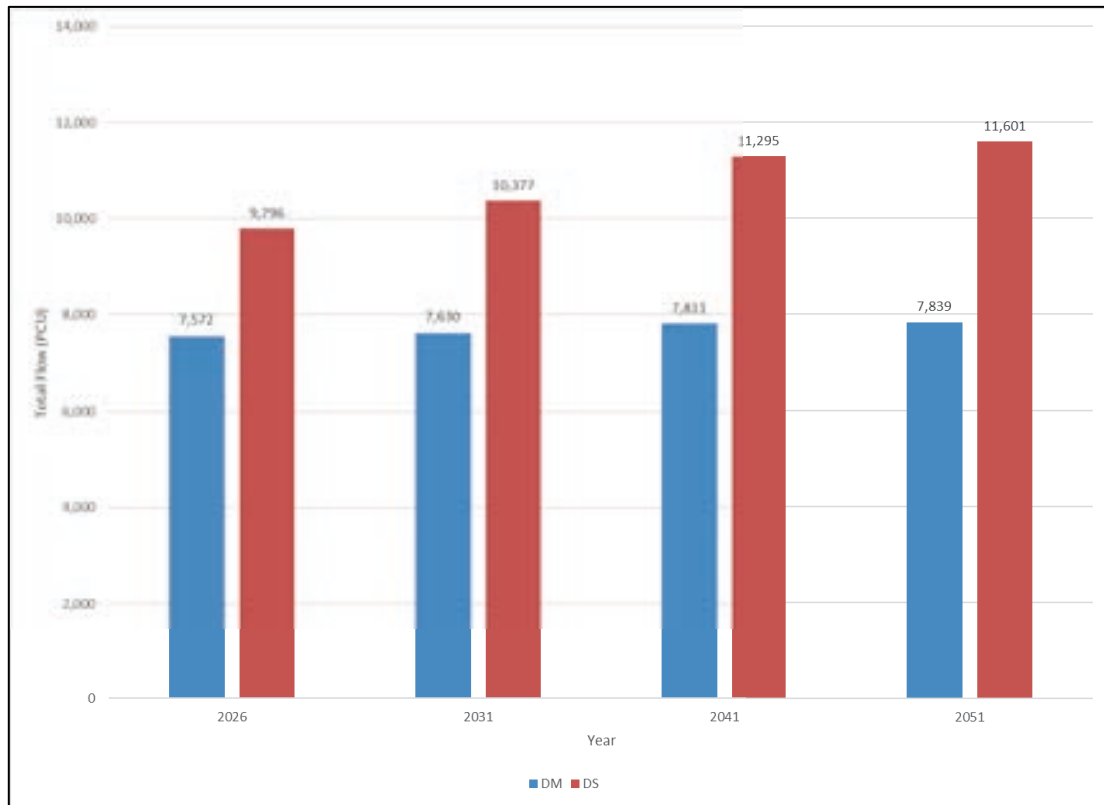


Figure B17 – High Growth Scenario – IP Northbound Cross River Flows (PCU/Hr)

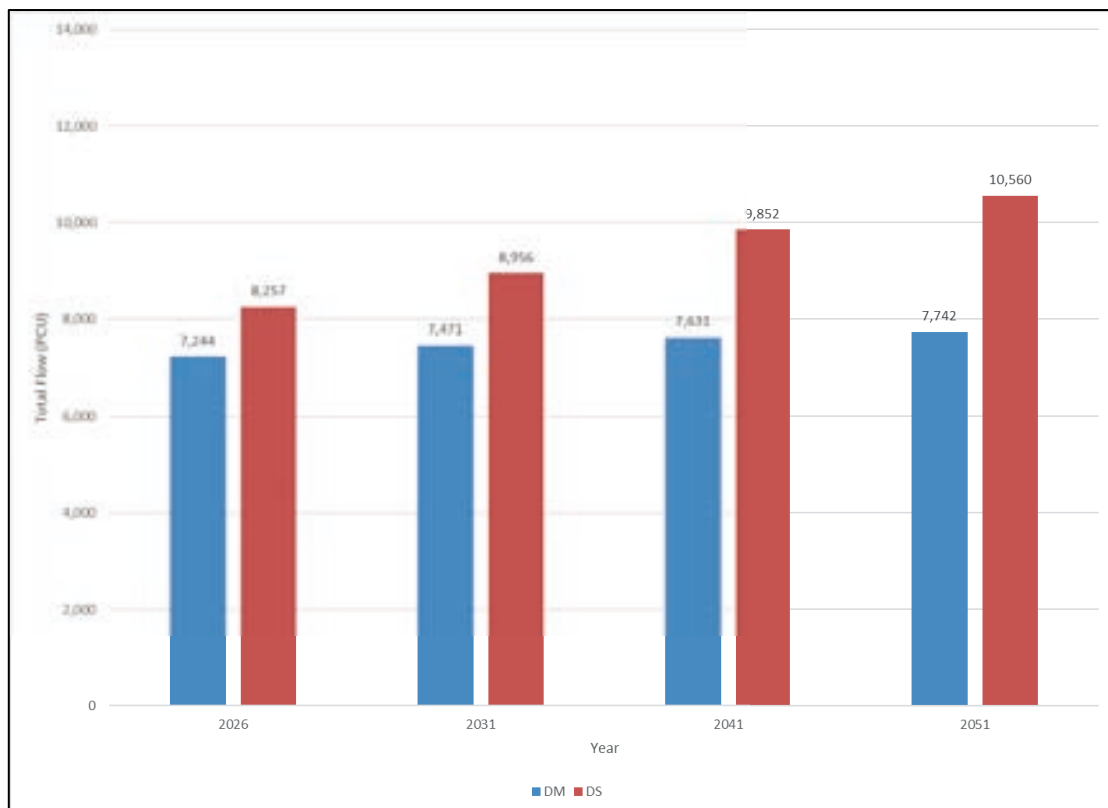
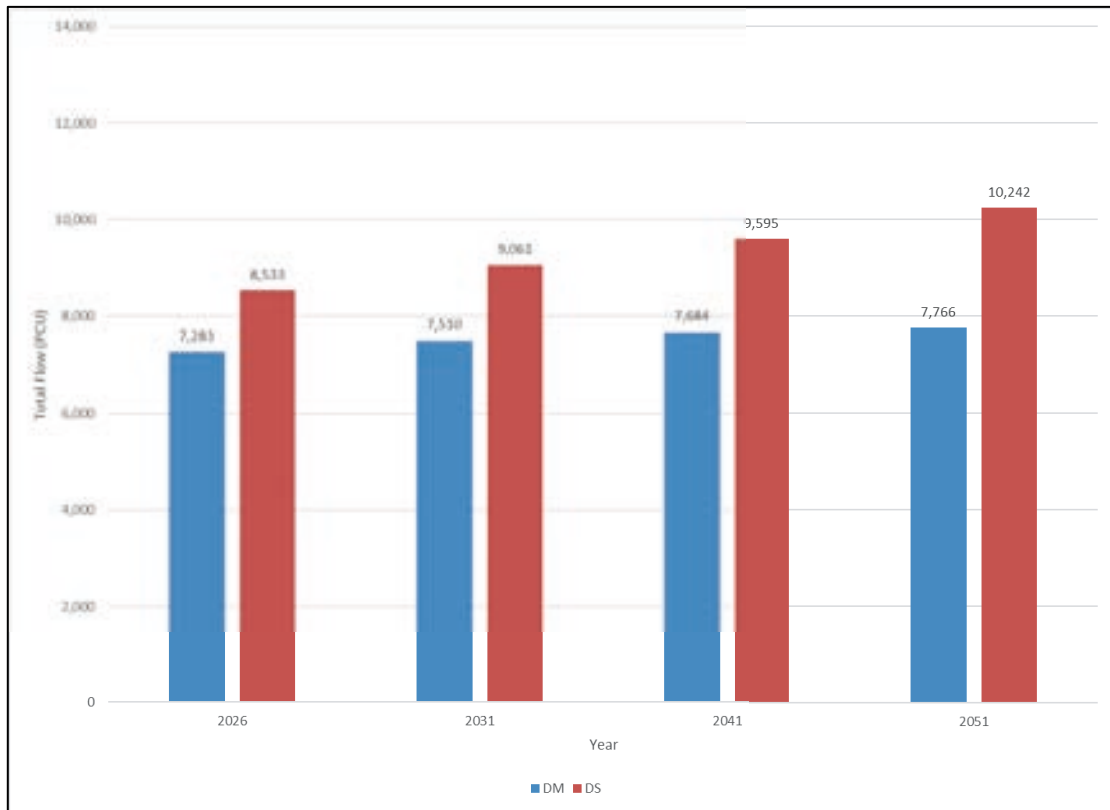


Figure B18 – High Growth Scenario – PM Northbound Cross River Flows (PCU/Hr)



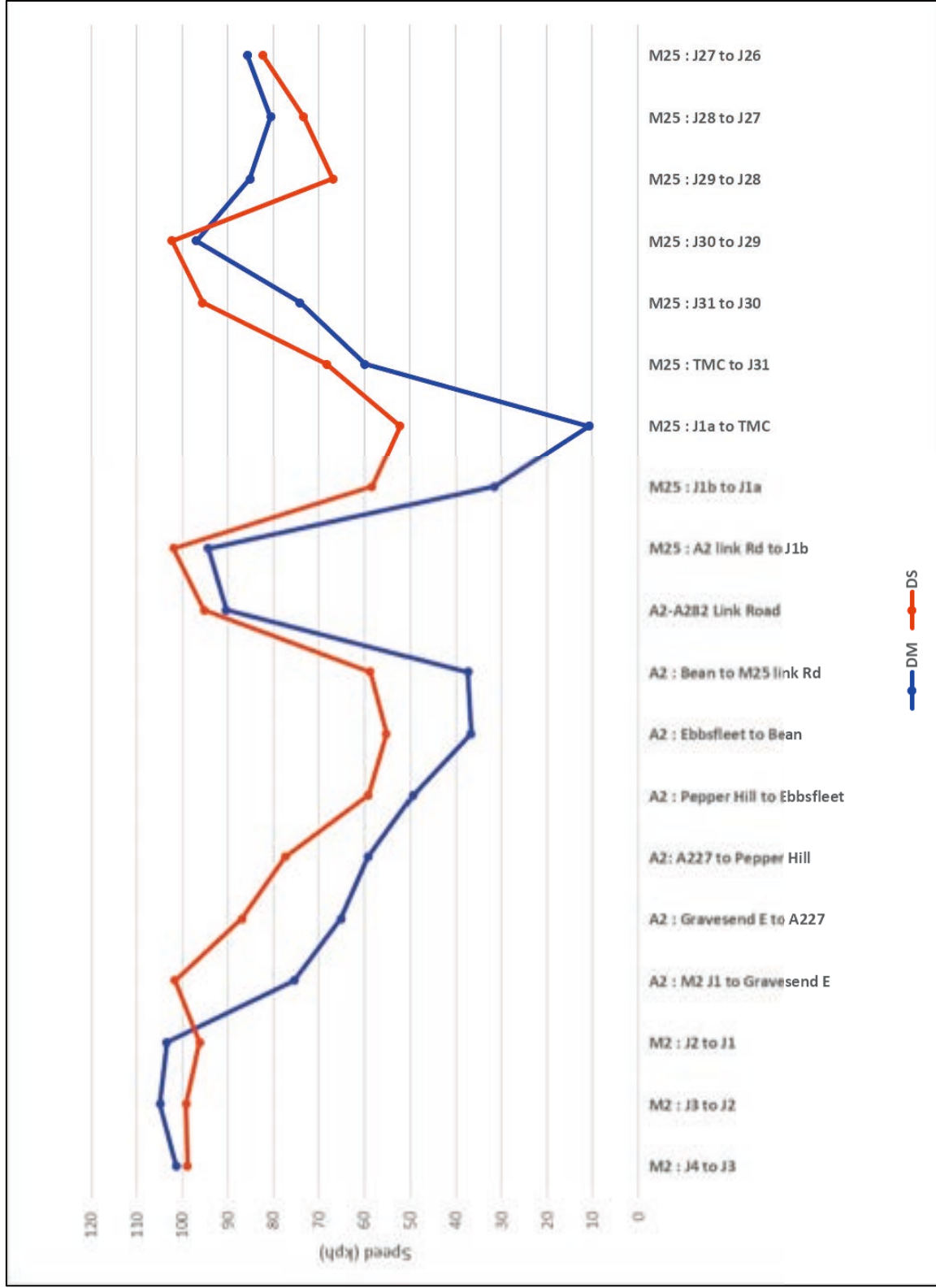
Appendix C – LTC Scheme Impacts – Detailed Link Based Journey Time Comparisons

- C.1.1 The analysis below provides detailed link based journey time comparisons for the route from M2 J4 to M25 J26. This is the primary route that is affected by the introduction of LTC. The detailed breakdown enables different sections of the route to be isolated and comparisons of with and without the scheme to be identified.
- C.1.2 The general message is, as one would expect, that average speeds increase along sections to which LTC provides relief, and average speeds decrease on the roads ‘either side’ of the scheme.
- C.1.3 The roads which will see an **increase** in average speed are:
- A2 between M2 junction 1 and M25 junction 2; and
 - M25/A282 junction 2 to M25 junction 29.
- C.1.4 The roads which will see a general **reduction** in average speed are:
- M2 south/east of junction 1; and
 - M25 north of junction 29.
- C.1.5 This analysis highlights two significant network issues which act as constraints to cross river movements:
- Lack of capacity through M25 junction 28 in both directions; and
 - Lack of capacity through M2 junction 2 southbound.
- C.1.6 The following tables and figures show that the introduction of LTC appears to only have a small impact on average speeds on the M25 southbound towards J28. This is because the traffic flow through J28 is generally at capacity (in the peak hours for all forecast years and in the IP period by 2041 and beyond). This constraint in turn results in only small changes southbound towards J29.
- C.1.7 Table C1 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2026 core forecast in the AM Peak. Figure C1 illustrates the speed differences.

**Table C1 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26
Northbound – 2026 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.6	101	6,084	3.7	99
M2 : J3 to J2	6,090	3.5	105	6,090	3.7	99
M2 : J2 to J1	2,874	1.7	103	2,419	1.5	96
A2 : M2 J1 to Gravesend E	3,846	3.1	75	4,379	2.6	102
A2 : Gravesend E to A227	1,884	1.7	65	1,860	1.3	87
A2: A227 to Pepper Hill	2,203	2.2	59	2,203	1.7	77
A2 : Pepper Hill to Ebbsfleet	1,635	2.0	49	1,635	1.7	59
A2 : Ebbsfleet to Bean	2,145	3.5	37	2,145	2.3	55
A2 : Bean to M25 link Rd	1,942	3.1	37	1,942	2.0	59
A2-A282 Link Road	1,481	1.0	90	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.7	94	1,048	0.6	102
M25 : J1b to J1a	1,272	2.4	32	1,272	1.3	58
M25 : J1a to TMC	587	3.3	11	587	0.7	52
M25 : TMC to J31	3,835	3.8	60	3,835	3.4	68
M25 : J31 to J30	1,061	0.9	74	1,061	0.7	95
M25 : J30 to J29	8,860	5.5	97	9,659	5.7	102
M25 : J29 to J28	4,515	3.2	85	3,670	3.3	67
M25 : J28 to J27	12,496	9.3	81	12,496	10.2	73
M25 : J27 to J26	6,788	4.8	86	6,788	4.9	82
Overall Total	70,642	59.1	72	70,650	52.1	81
Overall Difference				8	-7.0	10

Figure C1 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2026 Core AM Peak

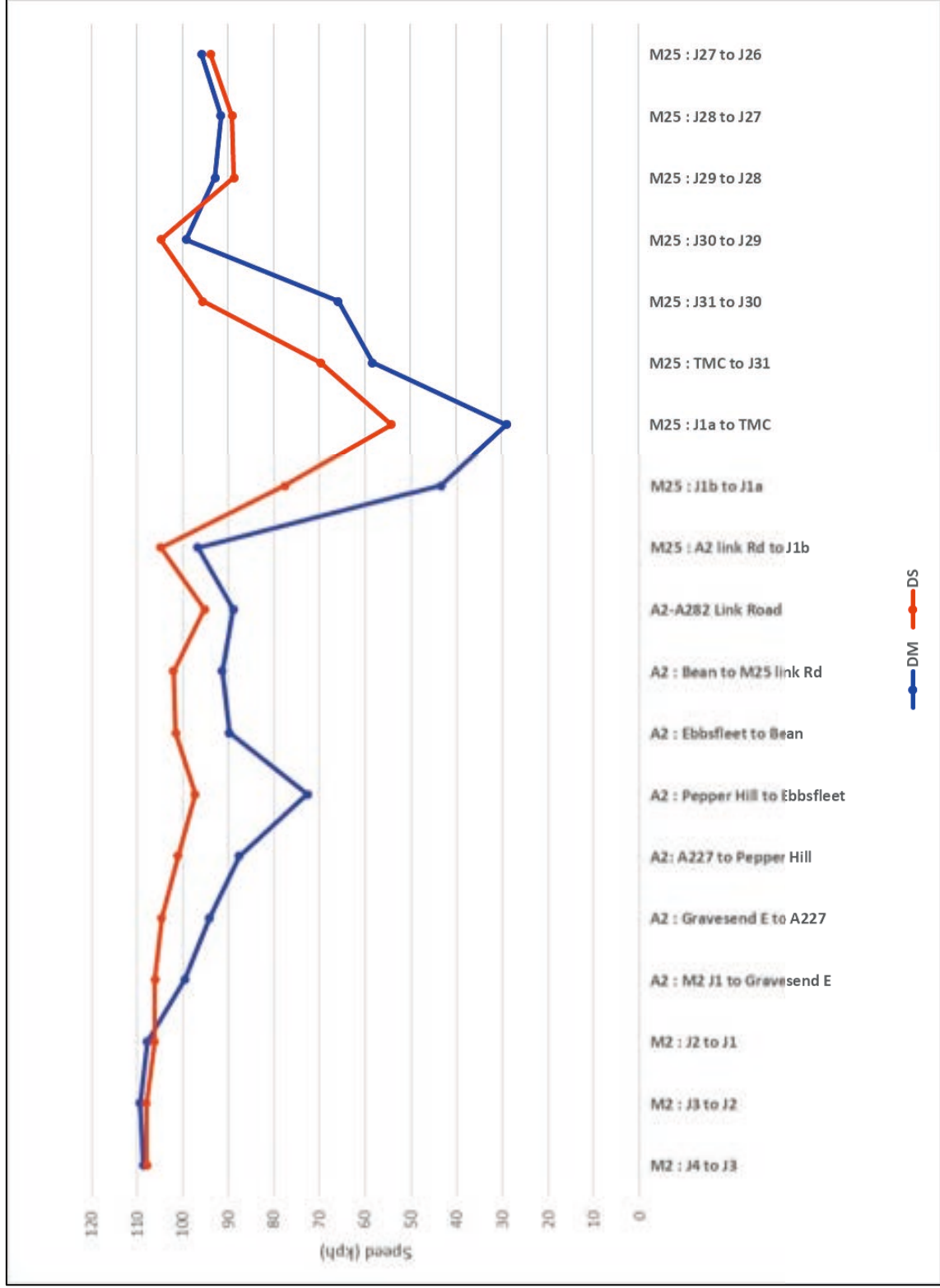


C.1.8 Table C2 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2026 core forecast in the Inter Peak. Figure C2 illustrates the speed differences.

Table C2 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2026 Core Inter Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.4	109	6,084	3.4	108
M2 : J3 to J2	6,090	3.3	109	6,090	3.4	108
M2 : J2 to J1	2,874	1.6	108	2,419	1.4	106
A2 : M2 J1 to Gravesend E	3,846	2.3	100	4,379	2.5	106
A2 : Gravesend E to A227	1,884	1.2	94	1,860	1.1	105
A2: A227 to Pepper Hill	2,203	1.5	88	2,203	1.3	101
A2 : Pepper Hill to Ebbsfleet	1,635	1.4	73	1,635	1.0	97
A2 : Ebbsfleet to Bean	2,145	1.4	90	2,145	1.3	102
A2 : Bean to M25 link Rd	1,942	1.3	91	1,942	1.1	102
A2-A282 Link Road	1,481	1.0	89	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.7	97	1,048	0.6	105
M25 : J1b to J1a	1,272	1.8	44	1,272	1.0	78
M25 : J1a to TMC	587	1.2	29	587	0.7	54
M25 : TMC to J31	3,835	3.9	58	3,835	3.3	70
M25 : J31 to J30	1,061	1.0	66	1,061	0.7	95
M25 : J30 to J29	8,860	5.4	99	9,659	5.5	105
M25 : J29 to J28	4,515	2.9	93	3,670	2.5	89
M25 : J28 to J27	12,496	8.2	92	12,496	8.4	89
M25 : J27 to J26	6,788	4.3	96	6,788	4.3	94
Overall Total	70,642	47.6	89	70,650	44.3	96
Overall Difference				8	-3.3	7

Figure C2 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2026 Core Inter Peak

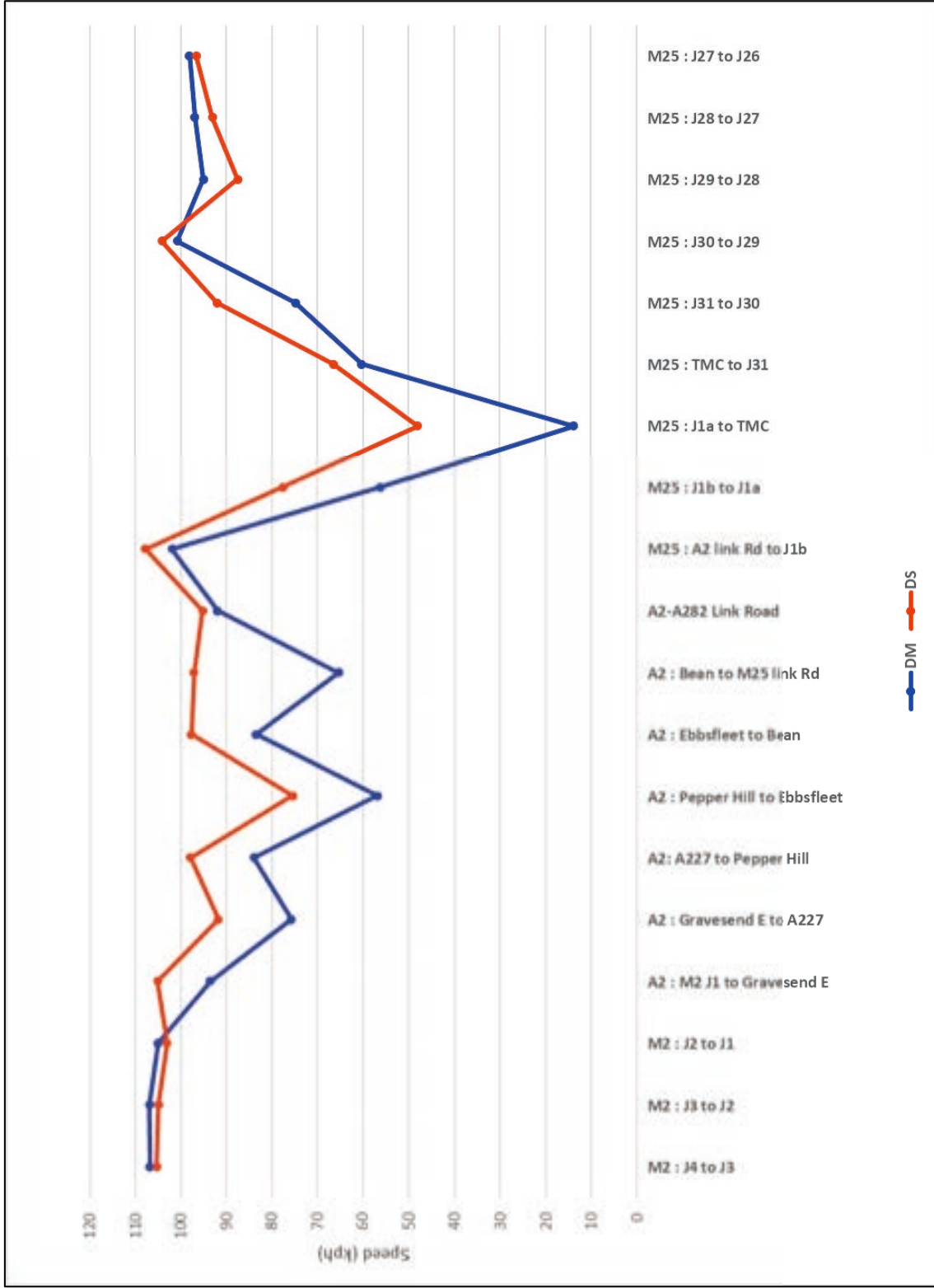


C.1.9 Table C3 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2026 core forecast in the PM Peak. Figure C3 illustrates the speed differences.

Table C3 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2026 Core PM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.4	107	6,084	3.5	105
M2 : J3 to J2	6,090	3.4	107	6,090	3.5	105
M2 : J2 to J1	2,874	1.6	105	2,419	1.4	103
A2 : M2 J1 to Gravesend E	3,846	2.5	94	4,379	2.5	105
A2 : Gravesend E to A227	1,884	1.5	76	1,860	1.2	92
A2: A227 to Pepper Hill	2,203	1.6	84	2,203	1.4	98
A2 : Pepper Hill to Ebbsfleet	1,635	1.7	57	1,635	1.3	75
A2 : Ebbsfleet to Bean	2,145	1.5	83	2,145	1.3	98
A2 : Bean to M25 link Rd	1,942	1.8	65	1,942	1.2	97
A2-A282 Link Road	1,481	1.0	92	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.6	102	1,048	0.6	108
M25 : J1b to J1a	1,272	1.4	56	1,272	1.0	78
M25 : J1a to TMC	587	2.5	14	587	0.7	48
M25 : TMC to J31	3,835	3.8	60	3,835	3.5	67
M25 : J31 to J30	1,061	0.9	75	1,061	0.7	92
M25 : J30 to J29	8,860	5.3	101	9,659	5.6	104
M25 : J29 to J28	4,515	2.9	95	3,670	2.5	87
M25 : J28 to J27	12,496	7.7	97	12,496	8.1	93
M25 : J27 to J26	6,788	4.2	98	6,788	4.2	97
Overall Total	70,642	49.2	86	70,650	45.0	94
Overall Difference				8	-4.2	8

Figure C3 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2026 Core PM Peak

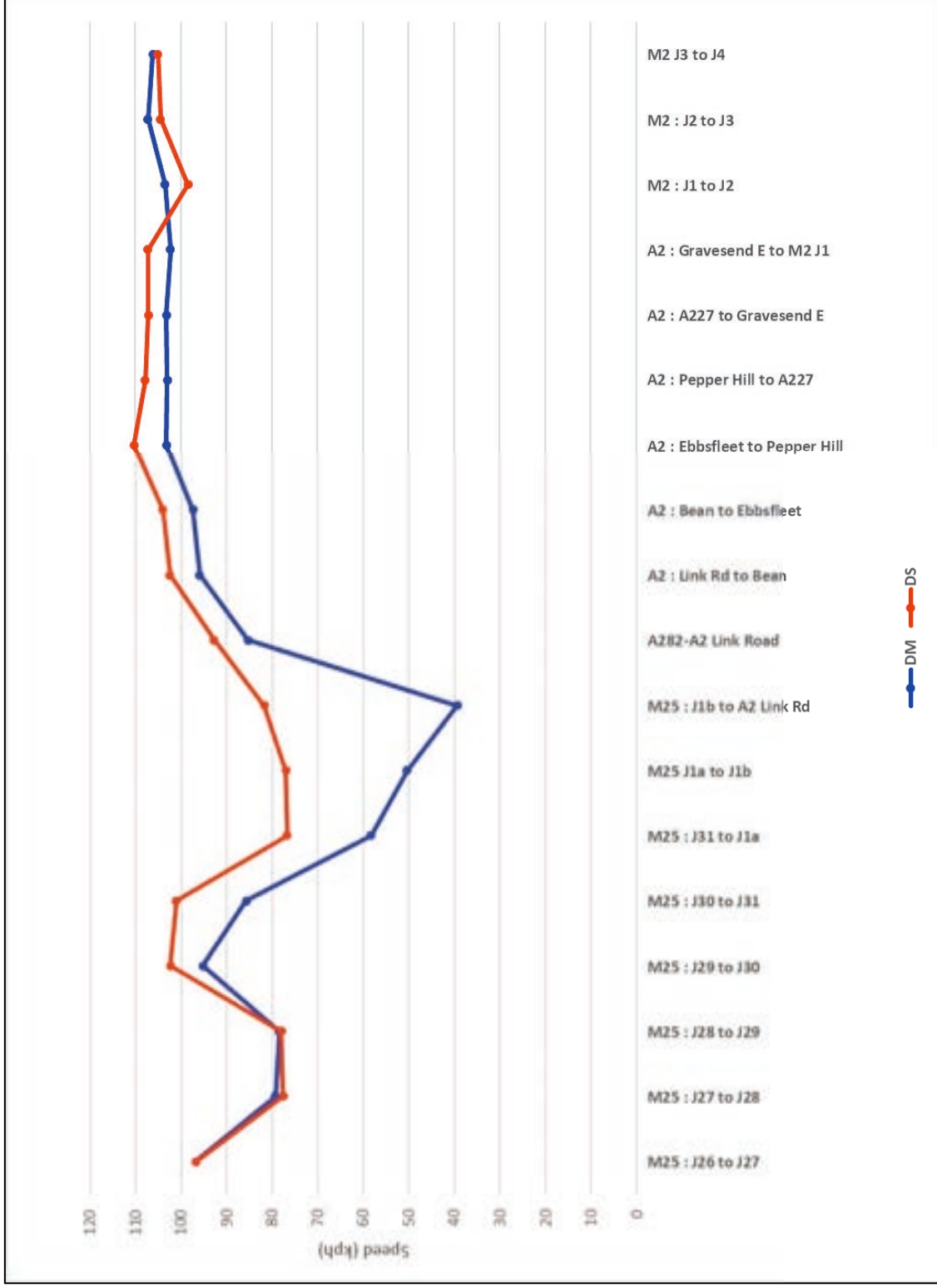


C.1.10 Table C4 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2026 core forecast in the AM Peak. Figure C4 illustrates the speed differences.

Table C4 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2026 Core AM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	4.6	97	7,492	4.7	97
M25 : J27 to J28	12,434	9.4	79	12,434	9.6	78
M25 : J28 to J29	4,528	3.5	79	4,528	3.5	78
M25 : J29 to J30	8,624	5.4	95	8,613	5.1	102
M25 : J30 to J31	1,179	0.8	86	1,179	0.7	101
M25 : J31 to J1a	4,571	4.7	58	4,571	3.6	77
M25 J1a to J1b	1,338	1.6	50	1,338	1.0	77
M25 : J1b to A2 Link Rd	1,226	1.9	39	1,226	0.9	82
A282-A2 Link Road	1,494	1.1	85	1,494	1.0	93
A2 : Link Rd to Bean	1,452	0.9	96	1,452	0.9	102
A2 : Bean to Ebbsfleet	2,949	1.8	97	2,949	1.7	104
A2 : Ebbsfleet to Pepper Hill	1,103	0.6	103	1,103	0.6	110
A2 : Pepper Hill to A227	1,901	1.1	103	1,901	1.1	108
A2 : A227 to Gravesend E	2,106	1.2	103	1,741	1.0	107
A2 : Gravesend E to M2 J1	4,247	2.5	102	5,092	2.9	107
M2 : J1 to J2	2,443	1.4	103	1,899	1.2	98
M2 : J2 to J3	6,311	3.5	107	6,311	3.6	104
M2 J3 to J4	5,937	3.4	106	5,937	3.4	105
Overall Total	71,333	49.5	87	71,258	46.2	93
Overall Difference				-75	-3.3	6

Figure C4 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2026 Core AM Peak

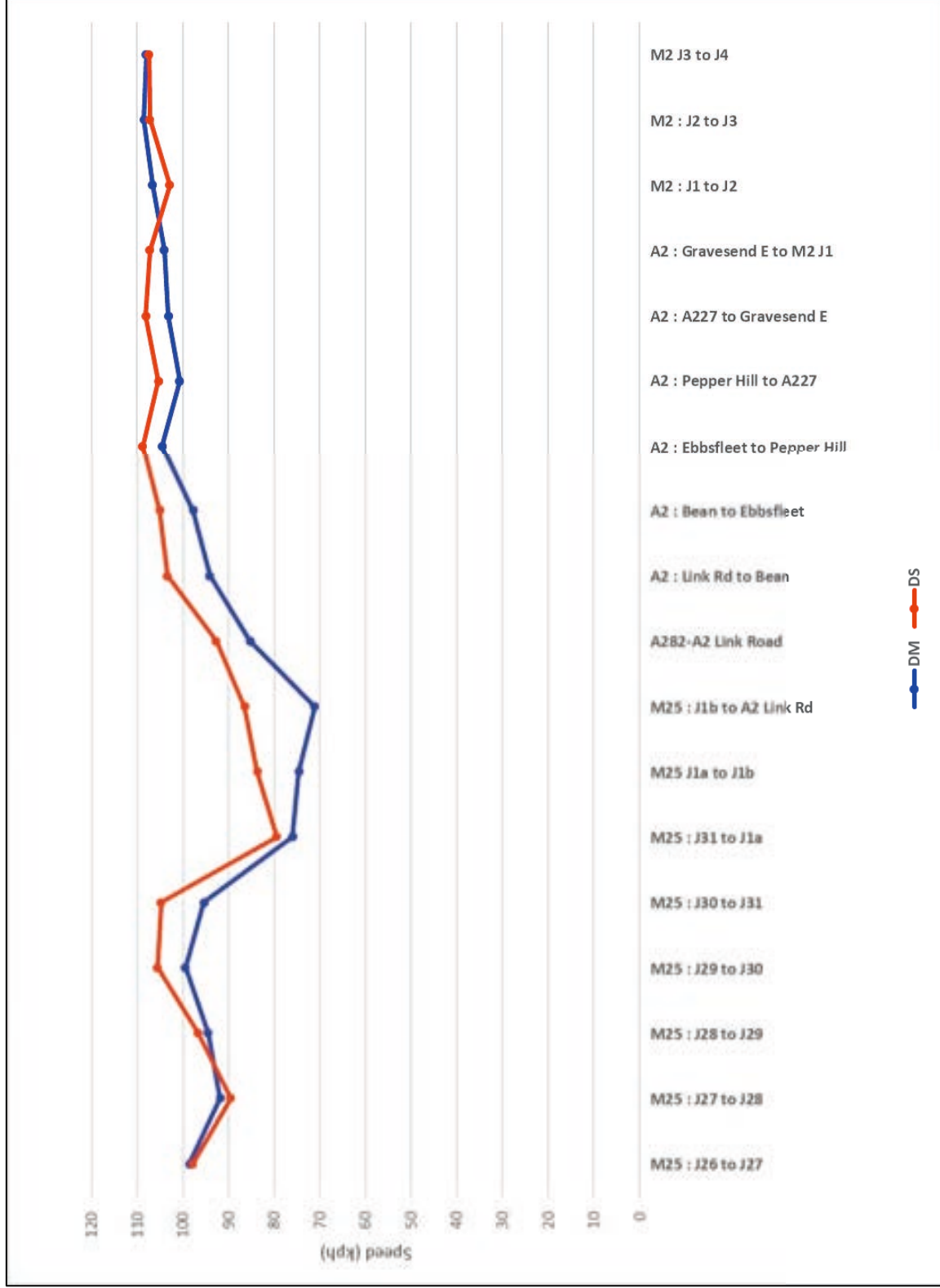


C.1.11 Table C5 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2026 core forecast in the Inter Peak. Figure C5 illustrates the speed differences.

Table C5 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2026 Core Inter Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	4.6	99	7,492	4.6	98
M25 : J27 to J28	12,434	8.1	92	12,434	8.3	90
M25 : J28 to J29	4,528	2.9	94	4,528	2.8	97
M25 : J29 to J30	8,624	5.2	100	8,613	4.9	106
M25 : J30 to J31	1,179	0.7	95	1,179	0.7	105
M25 : J31 to J1a	4,571	3.6	76	4,571	3.5	79
M25 J1a to J1b	1,338	1.1	75	1,338	1.0	84
M25 : J1b to A2 Link Rd	1,226	1.0	71	1,226	0.9	87
A282-A2 Link Road	1,494	1.1	85	1,494	1.0	93
A2 : Link Rd to Bean	1,452	0.9	94	1,452	0.8	103
A2 : Bean to Ebbsfleet	2,949	1.8	98	2,949	1.7	105
A2 : Ebbsfleet to Pepper Hill	1,103	0.6	104	1,103	0.6	109
A2 : Pepper Hill to A227	1,901	1.1	101	1,901	1.1	105
A2 : A227 to Gravesend E	2,106	1.2	103	1,741	1.0	108
A2 : Gravesend E to M2 J1	4,247	2.5	104	5,092	2.9	107
M2 : J1 to J2	2,443	1.4	107	1,899	1.1	103
M2 : J2 to J3	6,311	3.5	108	6,311	3.5	107
M2 J3 to J4	5,937	3.3	108	5,937	3.3	107
Overall Total	71,333	44.6	96	71,258	43.5	98
Overall Difference				-75	-1.1	2

Figure C5 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2026 Core Inter Peak

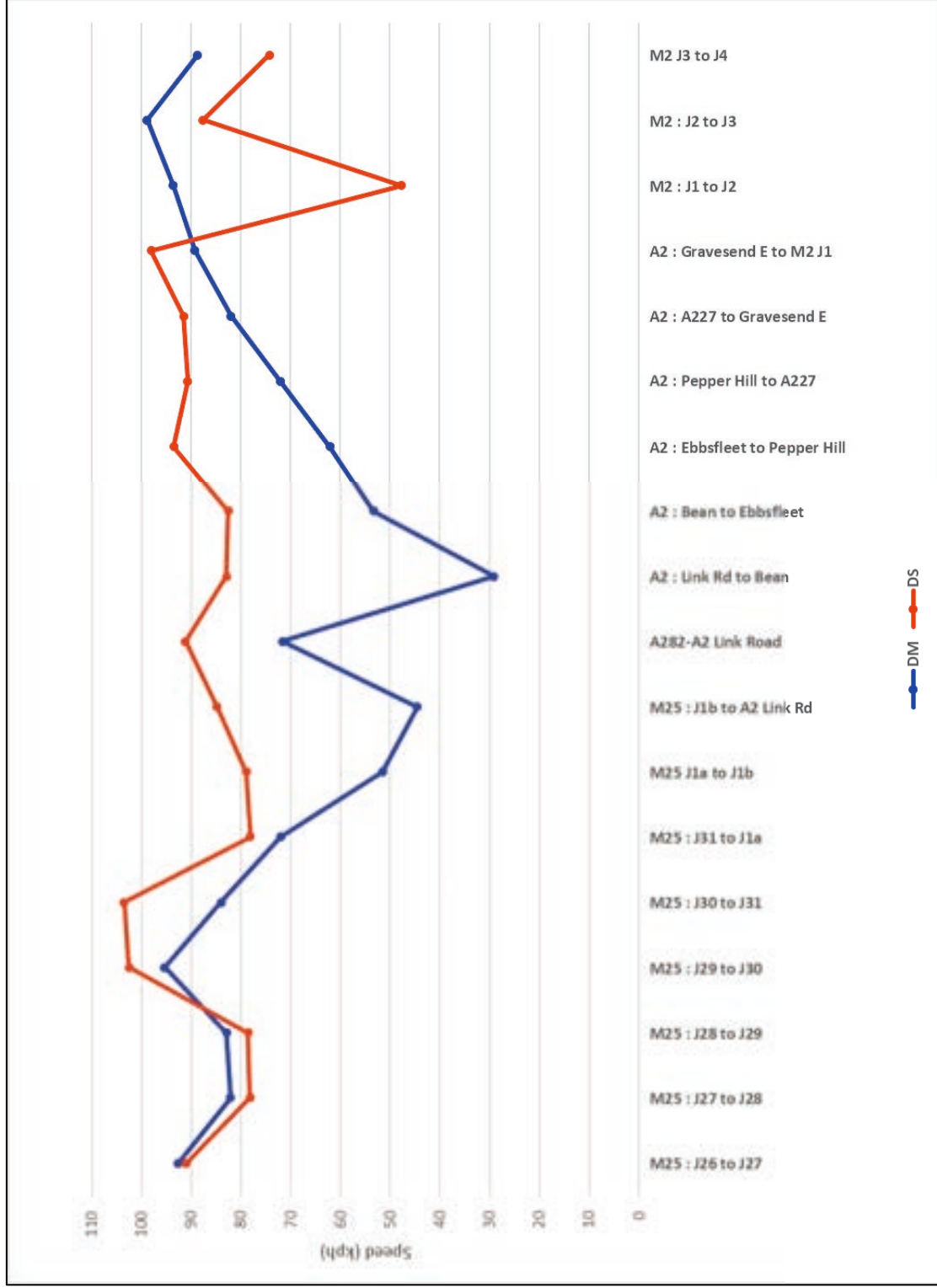


C.1.12 Table C6 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2026 core forecast in the PM Peak. Figure C6 illustrates the speed differences.

Table C6 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2026 Core PM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	4.9	93	7,492	4.9	91
M25 : J27 to J28	12,434	9.1	82	12,434	9.5	78
M25 : J28 to J29	4,528	3.3	83	4,528	3.5	79
M25 : J29 to J30	8,624	5.4	95	8,613	5.0	103
M25 : J30 to J31	1,179	0.8	84	1,179	0.7	104
M25 : J31 to J1a	4,571	3.8	72	4,571	3.5	78
M25 J1a to J1b	1,338	1.6	52	1,338	1.0	79
M25 : J1b to A2 Link Rd	1,226	1.7	45	1,226	0.9	85
A282-A2 Link Road	1,494	1.3	72	1,494	1.0	91
A2 : Link Rd to Bean	1,452	3.0	29	1,452	1.1	83
A2 : Bean to Ebbsfleet	2,949	3.3	53	2,949	2.1	83
A2 : Ebbsfleet to Pepper Hill	1,103	1.1	62	1,103	0.7	93
A2 : Pepper Hill to A227	1,901	1.6	72	1,901	1.3	91
A2 : A227 to Gravesend E	2,106	1.5	82	1,741	1.1	91
A2 : Gravesend E to M2 J1	4,247	2.9	89	5,092	3.1	98
M2 : J1 to J2	2,443	1.6	94	1,899	2.4	48
M2 : J2 to J3	6,311	3.8	99	6,311	4.3	88
M2 J3 to J4	5,937	4.0	89	5,937	4.8	74
Overall Total	71,333	54.5	79	71,258	51.0	84
Overall Difference				-75	-3.5	5

Figure C6 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2026 Core PM Peak

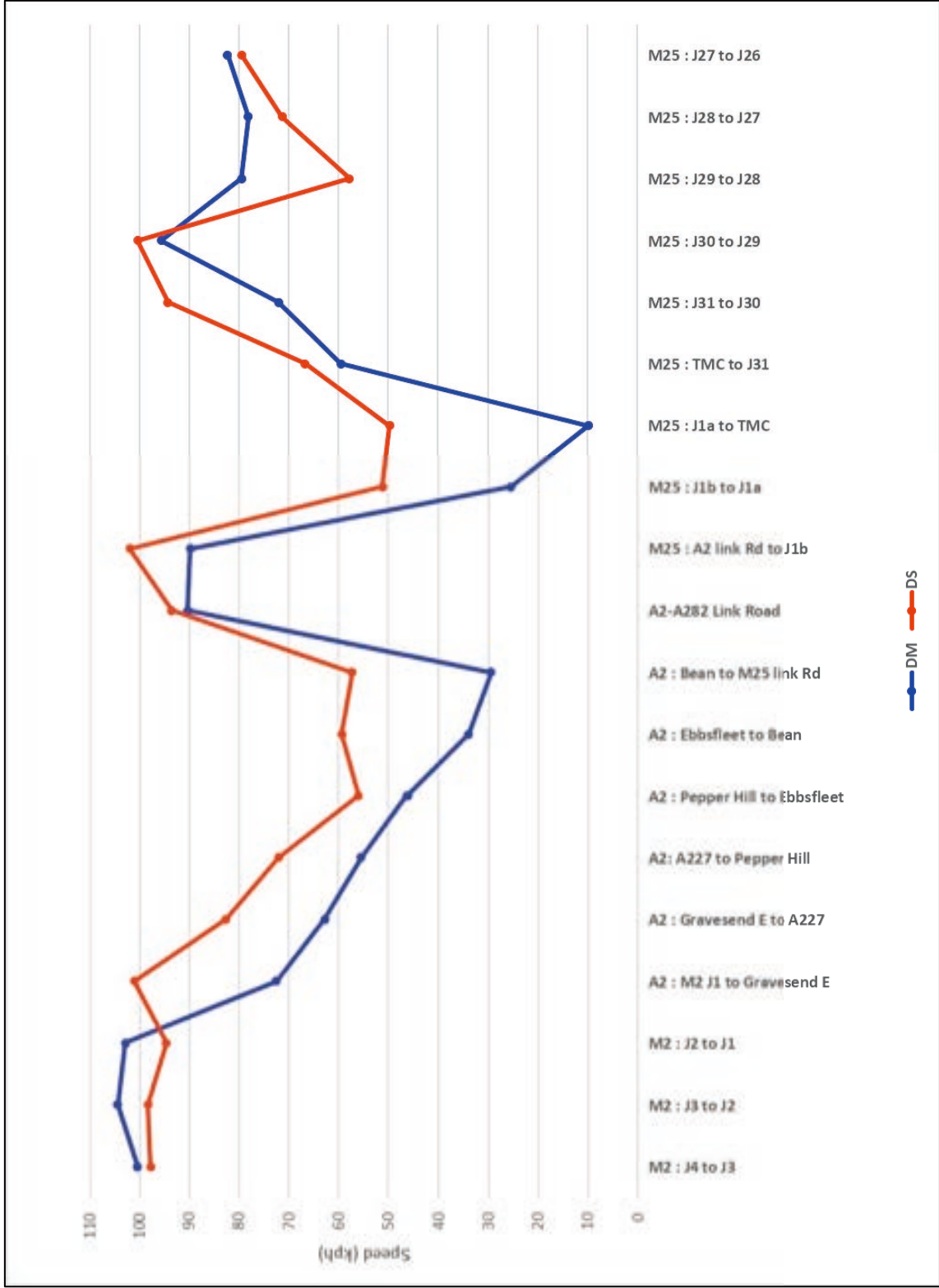


C.1.13 Table C7 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2031 core forecast in the AM Peak. Figure C7 illustrates the speed differences.

Table C7 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2031 Core AM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.6	100	6,084	3.7	98
M2 : J3 to J2	6,090	3.5	104	6,090	3.7	98
M2 : J2 to J1	2,874	1.7	103	2,419	1.5	95
A2 : M2 J1 to Gravesend E	3,846	3.2	72	4,379	2.6	101
A2 : Gravesend E to A227	1,884	1.8	63	1,860	1.4	83
A2: A227 to Pepper Hill	2,203	2.4	55	2,203	1.8	72
A2 : Pepper Hill to Ebbsfleet	1,635	2.1	46	1,635	1.8	56
A2 : Ebbsfleet to Bean	2,145	3.8	34	2,145	2.2	59
A2 : Bean to M25 link Rd	1,942	4.0	29	1,942	2.0	57
A2-A282 Link Road	1,481	1.0	90	1,481	1.0	94
M25 : A2 link Rd to J1b	1,048	0.7	90	1,048	0.6	102
M25 : J1b to J1a	1,272	3.0	26	1,272	1.5	51
M25 : J1a to TMC	587	3.6	10	587	0.7	50
M25 : TMC to J31	3,835	3.9	60	3,835	3.5	67
M25 : J31 to J30	1,061	0.9	72	1,061	0.7	94
M25 : J30 to J29	8,860	5.6	96	9,659	5.8	100
M25 : J29 to J28	4,515	3.4	79	3,670	3.8	58
M25 : J28 to J27	12,496	9.6	78	12,496	10.5	71
M25 : J27 to J26	6,788	5.0	82	6,788	5.1	79
Overall Total	70,642	62.5	68	70,650	53.8	79
Overall Difference				8	-8.7	11

Figure C7 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2031 Core AM Peak

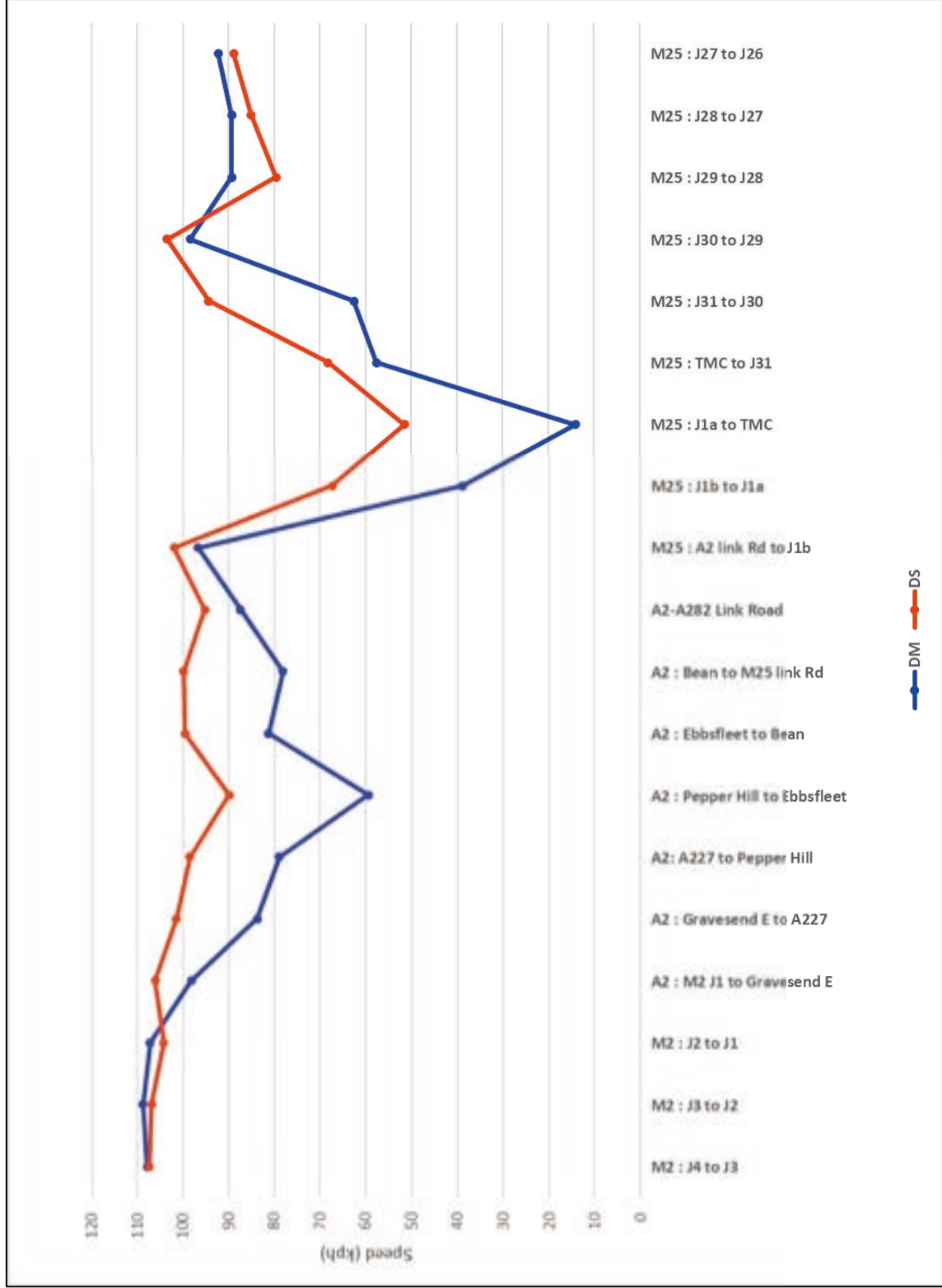


C.1.14 Table C8 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2031 core forecast in the Inter Peak. Figure C8 illustrates the speed differences.

Table C8 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2031 Core Inter Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.4	108	6,084	3.4	107
M2 : J3 to J2	6,090	3.4	109	6,090	3.4	107
M2 : J2 to J1	2,874	1.6	107	2,419	1.4	104
A2 : M2 J1 to Gravesend E	3,846	2.4	98	4,379	2.5	106
A2 : Gravesend E to A227	1,884	1.4	84	1,860	1.1	101
A2: A227 to Pepper Hill	2,203	1.7	79	2,203	1.3	99
A2 : Pepper Hill to Ebbsfleet	1,635	1.7	59	1,635	1.1	90
A2 : Ebbsfleet to Bean	2,145	1.6	81	2,145	1.3	100
A2 : Bean to M25 link Rd	1,942	1.5	78	1,942	1.2	100
A2-A282 Link Road	1,481	1.0	87	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.7	97	1,048	0.6	102
M25 : J1b to J1a	1,272	2.0	39	1,272	1.1	67
M25 : J1a to TMC	587	2.5	14	587	0.7	52
M25 : TMC to J31	3,835	4.0	58	3,835	3.4	68
M25 : J31 to J30	1,061	1.0	63	1,061	0.7	94
M25 : J30 to J29	8,860	5.4	98	9,659	5.6	103
M25 : J29 to J28	4,515	3.0	89	3,670	2.8	80
M25 : J28 to J27	12,496	8.4	89	12,496	8.8	85
M25 : J27 to J26	6,788	4.4	92	6,788	4.6	89
Overall Total	70,642	50.8	83	70,650	45.9	92
Overall Difference				8	-5.0	9

Figure C8 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2031 Core Inter Peak

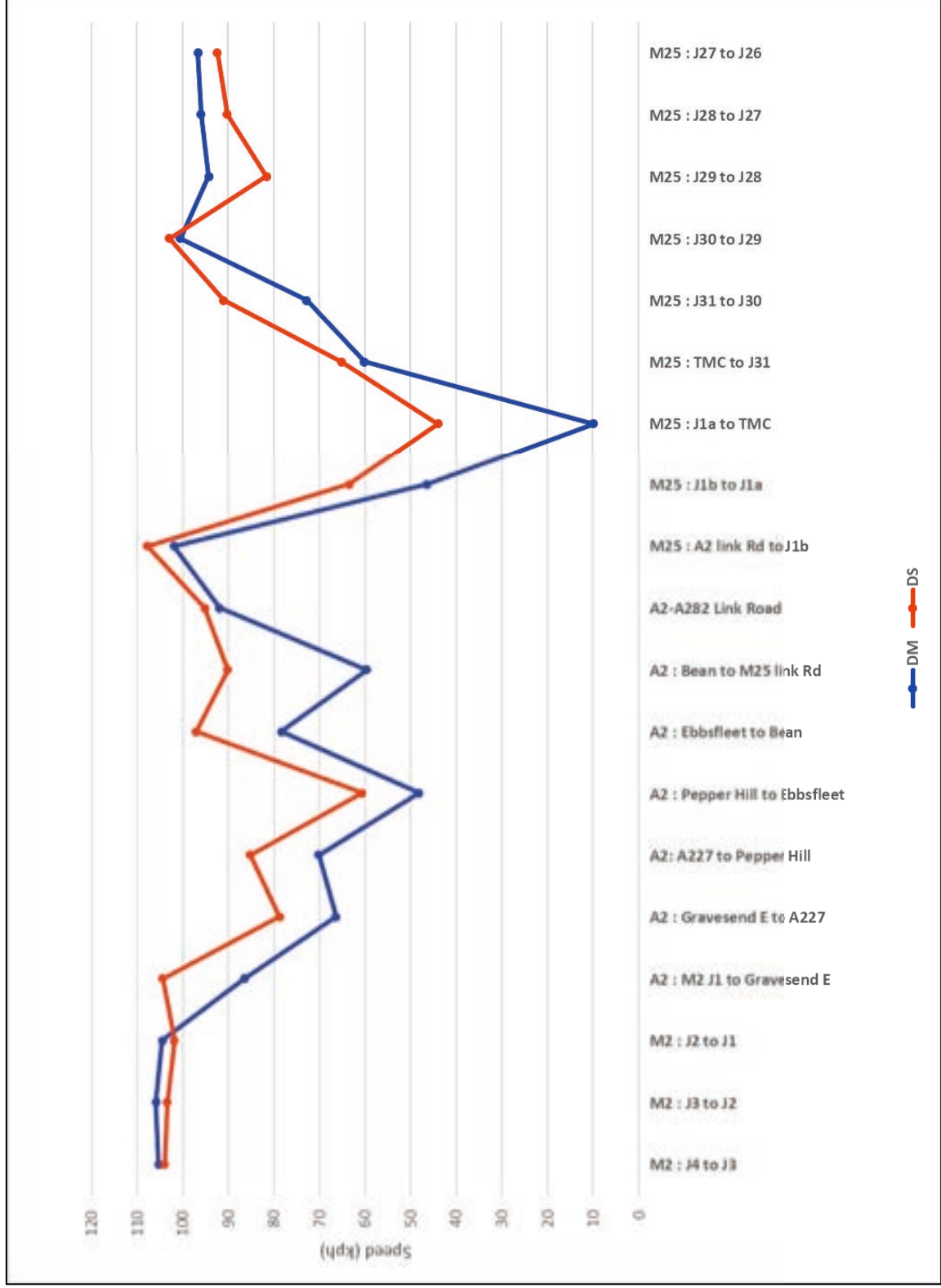


C.1.15 Table C9 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2031 core forecast in the PM Peak. Figure C9 illustrates the speed differences.

**Table C9 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26
Northbound – 2031 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.5	105	6,084	3.5	104
M2 : J3 to J2	6,090	3.5	106	6,090	3.5	103
M2 : J2 to J1	2,874	1.7	104	2,419	1.4	102
A2 : M2 J1 to Gravesend E	3,846	2.7	87	4,379	2.5	104
A2 : Gravesend E to A227	1,884	1.7	66	1,860	1.4	79
A2: A227 to Pepper Hill	2,203	1.9	70	2,203	1.6	85
A2 : Pepper Hill to Ebbsfleet	1,635	2.0	48	1,635	1.6	61
A2 : Ebbsfleet to Bean	2,145	1.6	78	2,145	1.3	97
A2 : Bean to M25 link Rd	1,942	2.0	60	1,942	1.3	90
A2-A282 Link Road	1,481	1.0	92	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.6	102	1,048	0.6	108
M25 : J1b to J1a	1,272	1.6	46	1,272	1.2	64
M25 : J1a to TMC	587	3.6	10	587	0.8	44
M25 : TMC to J31	3,835	3.8	60	3,835	3.5	65
M25 : J31 to J30	1,061	0.9	73	1,061	0.7	91
M25 : J30 to J29	8,860	5.3	100	9,659	5.6	103
M25 : J29 to J28	4,515	2.9	94	3,670	2.7	82
M25 : J28 to J27	12,496	7.8	96	12,496	8.3	90
M25 : J27 to J26	6,788	4.2	97	6,788	4.4	92
Overall Total	70,642	52.1	81	70,650	47.0	90
Overall Difference				8	-5.2	9

Figure C9 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2031 Core PM Peak

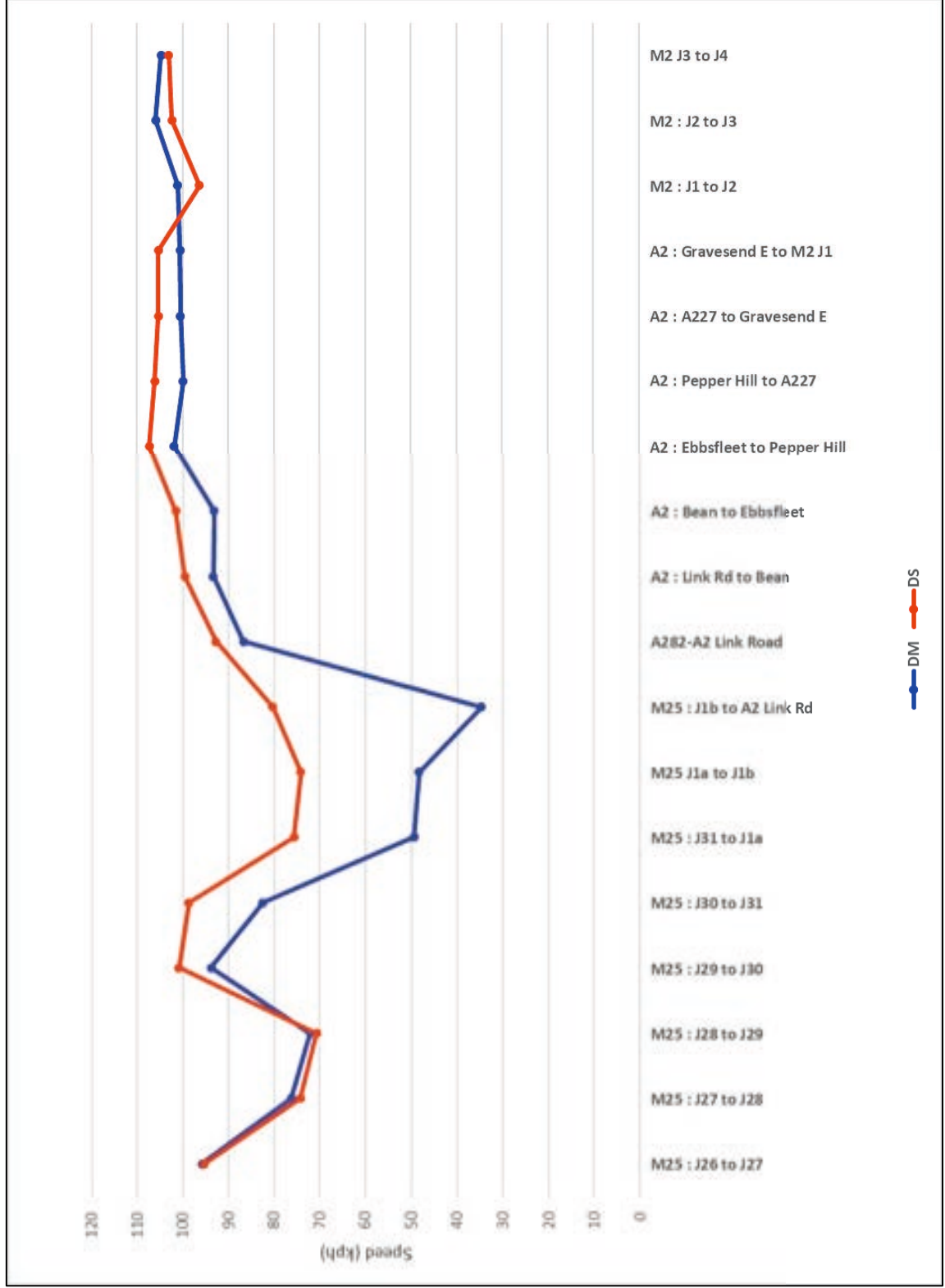


C.1.16 Table C10 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2031 core forecast in the AM Peak. Figure C10 illustrates the speed differences.

Table C10 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2031 Core AM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	4.7	96	7,492	4.7	95
M25 : J27 to J28	12,434	9.8	76	12,434	10.1	74
M25 : J28 to J29	4,528	3.8	72	4,528	3.8	71
M25 : J29 to J30	8,624	5.5	94	8,613	5.1	101
M25 : J30 to J31	1,179	0.9	82	1,179	0.7	99
M25 : J31 to J1a	4,571	5.5	50	4,571	3.6	76
M25 J1a to J1b	1,338	1.7	48	1,338	1.1	74
M25 : J1b to A2 Link Rd	1,226	2.1	35	1,226	0.9	80
A282-A2 Link Road	1,494	1.0	87	1,494	1.0	93
A2 : Link Rd to Bean	1,452	0.9	93	1,452	0.9	100
A2 : Bean to Ebbsfleet	2,949	1.9	93	2,949	1.7	102
A2 : Ebbsfleet to Pepper Hill	1,103	0.7	102	1,103	0.6	107
A2 : Pepper Hill to A227	1,901	1.1	100	1,901	1.1	106
A2 : A227 to Gravesend E	2,106	1.3	100	1,741	1.0	105
A2 : Gravesend E to M2 J1	4,247	2.5	101	5,092	2.9	105
M2 : J1 to J2	2,443	1.5	101	1,899	1.2	96
M2 : J2 to J3	6,311	3.6	106	6,311	3.7	102
M2 J3 to J4	5,937	3.4	105	5,937	3.5	103
Overall Total	71,333	51.8	83	71,258	47.6	90
Overall Difference				-75	-4.2	7

Figure C10 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2031 Core AM Peak

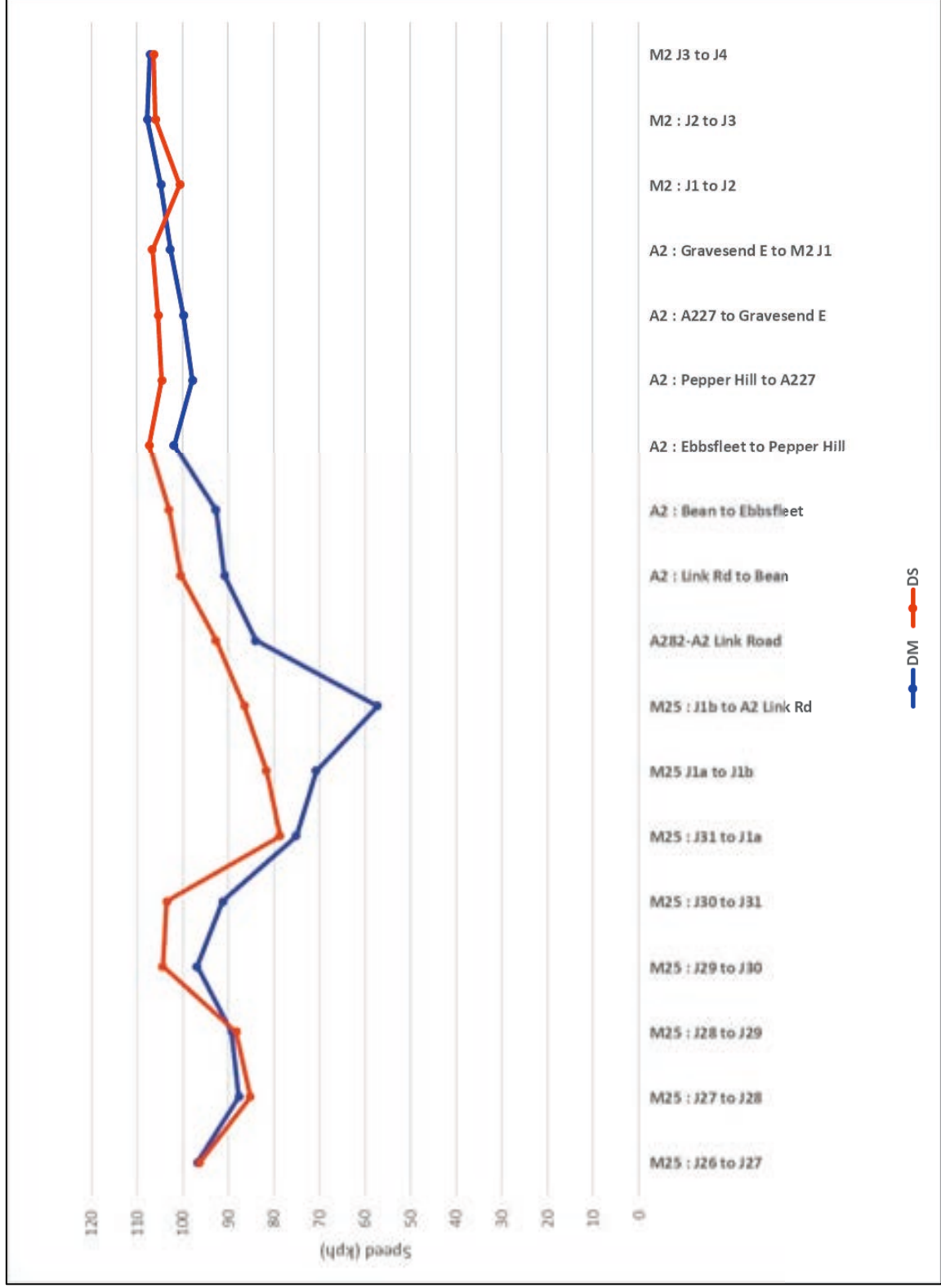


C.1.17 Table C11 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2031 core forecast in the Inter Peak. Figure C11 illustrates the speed differences.

Table C11 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2031 Core Inter Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	4.6	97	7,492	4.7	96
M25 : J27 to J28	12,434	8.5	88	12,434	8.8	85
M25 : J28 to J29	4,528	3.0	89	4,528	3.1	88
M25 : J29 to J30	8,624	5.3	97	8,613	5.0	104
M25 : J30 to J31	1,179	0.8	91	1,179	0.7	104
M25 : J31 to J1a	4,571	3.7	75	4,571	3.5	79
M25 J1a to J1b	1,338	1.1	71	1,338	1.0	82
M25 : J1b to A2 Link Rd	1,226	1.3	57	1,226	0.9	87
A282-A2 Link Road	1,494	1.1	84	1,494	1.0	93
A2 : Link Rd to Bean	1,452	1.0	91	1,452	0.9	100
A2 : Bean to Ebbsfleet	2,949	1.9	93	2,949	1.7	103
A2 : Ebbsfleet to Pepper Hill	1,103	0.7	102	1,103	0.6	107
A2 : Pepper Hill to A227	1,901	1.2	98	1,901	1.1	104
A2 : A227 to Gravesend E	2,106	1.3	100	1,741	1.0	105
A2 : Gravesend E to M2 J1	4,247	2.5	103	5,092	2.9	107
M2 : J1 to J2	2,443	1.4	105	1,899	1.1	101
M2 : J2 to J3	6,311	3.5	108	6,311	3.6	106
M2 J3 to J4	5,937	3.3	107	5,937	3.4	106
Overall Total	71,333	46.1	93	71,258	44.6	96
Overall Difference				-75	-1.5	3

Figure C11 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2031 Core Inter Peak

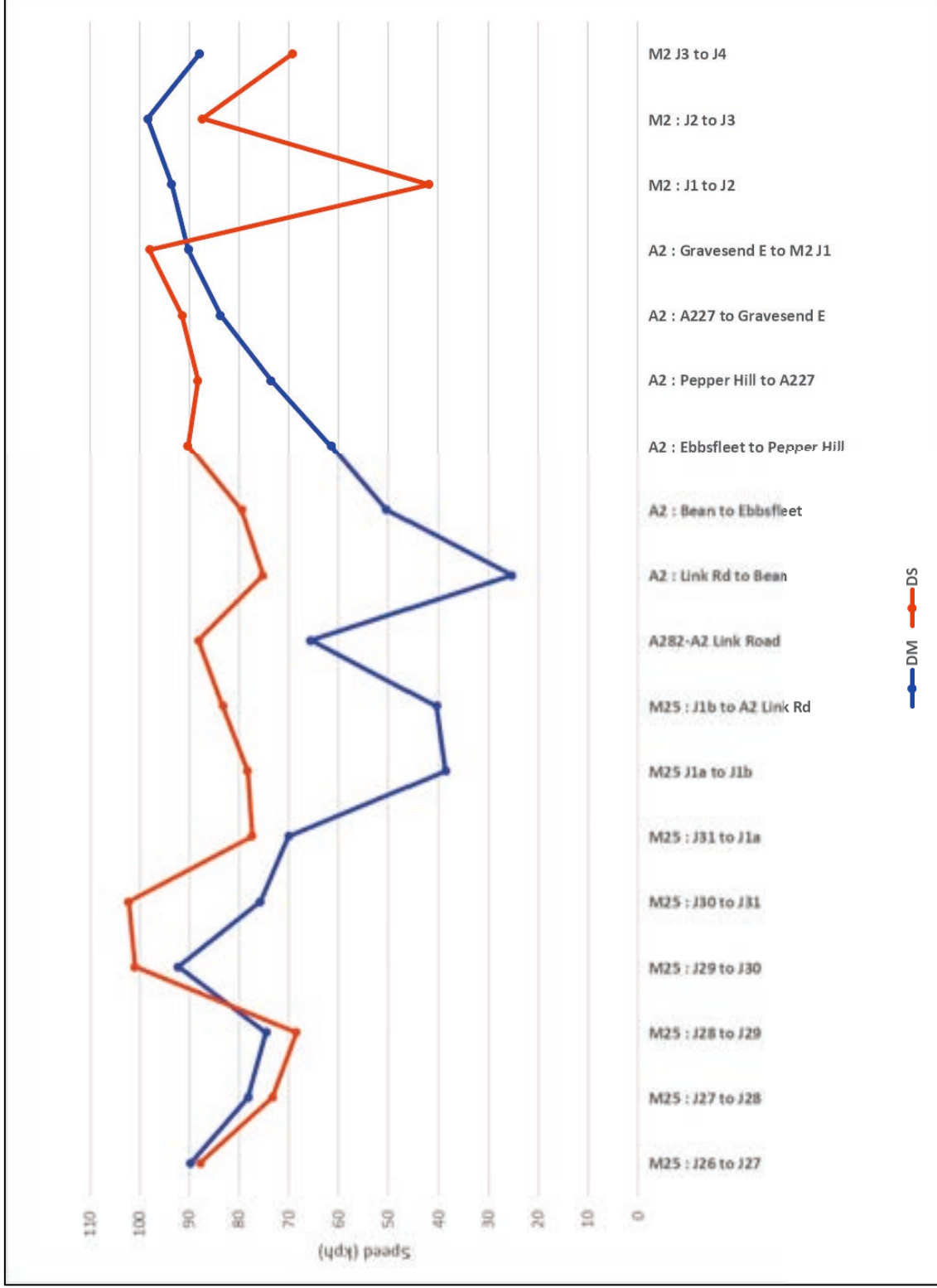


C.1.18 Table C12 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2031 core forecast in the PM Peak. Figure C12 illustrates the speed differences.

Table C12 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2031 Core PM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	5.0	90	7,492	5.1	88
M25 : J27 to J28	12,434	9.5	78	12,434	10.2	73
M25 : J28 to J29	4,528	3.6	75	4,528	4.0	68
M25 : J29 to J30	8,624	5.6	92	8,613	5.1	101
M25 : J30 to J31	1,179	0.9	76	1,179	0.7	102
M25 : J31 to J1a	4,571	3.9	70	4,571	3.5	77
M25 J1a to J1b	1,338	2.1	39	1,338	1.0	78
M25 : J1b to A2 Link Rd	1,226	1.8	40	1,226	0.9	83
A282-A2 Link Road	1,494	1.4	66	1,494	1.0	88
A2 : Link Rd to Bean	1,452	3.4	25	1,452	1.2	75
A2 : Bean to Ebbsfleet	2,949	3.5	50	2,949	2.2	80
A2 : Ebbsfleet to Pepper Hill	1,103	1.1	62	1,103	0.7	90
A2 : Pepper Hill to A227	1,901	1.6	74	1,901	1.3	88
A2 : A227 to Gravesend E	2,106	1.5	84	1,741	1.1	91
A2 : Gravesend E to M2 J1	4,247	2.8	90	5,092	3.1	98
M2 : J1 to J2	2,443	1.6	94	1,899	2.7	42
M2 : J2 to J3	6,311	3.9	98	6,311	4.3	87
M2 J3 to J4	5,937	4.1	88	5,937	5.1	69
Overall Total	71,333	57.3	75	71,258	53.4	80
Overall Difference				-75	-3.9	5

Figure C12 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2031 Core PM Peak

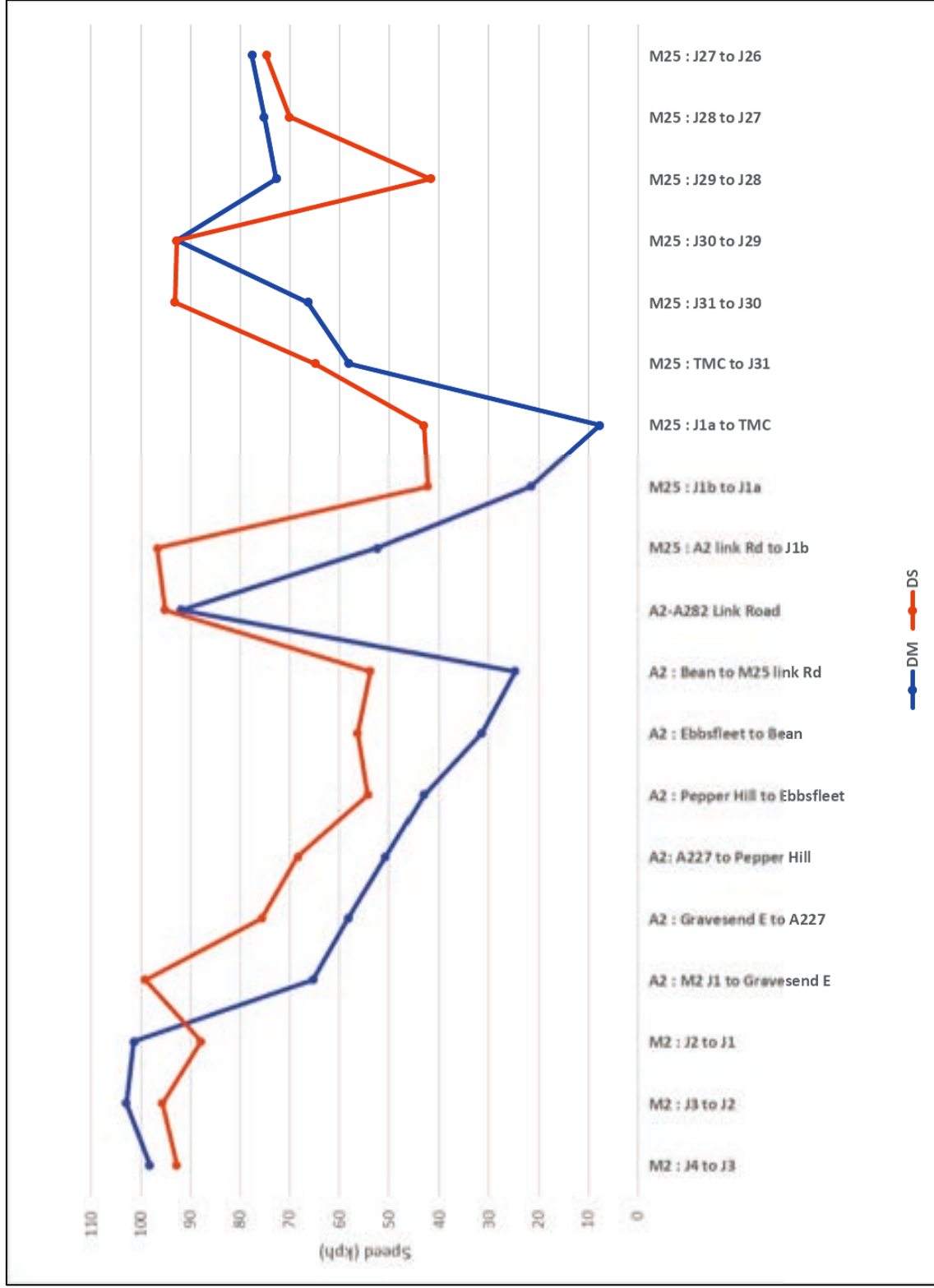


C.1.19 Table C13 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2041 core forecast in the AM Peak. Figure C13 illustrates the speed differences.

Table C13 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2041 Core AM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.7	98	6,084	3.9	93
M2 : J3 to J2	6,090	3.6	103	6,090	3.8	96
M2 : J2 to J1	2,874	1.7	101	2,419	1.7	88
A2 : M2 J1 to Gravesend E	3,846	3.5	65	4,379	2.7	99
A2 : Gravesend E to A227	1,884	1.9	58	1,860	1.5	76
A2: A227 to Pepper Hill	2,203	2.6	51	2,203	1.9	68
A2 : Pepper Hill to Ebbsfleet	1,635	2.3	43	1,635	1.8	54
A2 : Ebbsfleet to Bean	2,145	4.1	32	2,145	2.3	56
A2 : Bean to M25 link Rd	1,942	4.7	25	1,942	2.2	54
A2-A282 Link Road	1,481	1.0	92	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	1.2	52	1,048	0.7	97
M25 : J1b to J1a	1,272	3.5	22	1,272	1.8	42
M25 : J1a to TMC	587	4.6	8	587	0.8	43
M25 : TMC to J31	3,835	4.0	58	3,835	3.5	65
M25 : J31 to J30	1,061	1.0	66	1,061	0.7	93
M25 : J30 to J29	8,860	5.7	93	9,659	6.2	93
M25 : J29 to J28	4,515	3.7	73	3,670	5.3	42
M25 : J28 to J27	12,496	10.0	75	12,496	10.7	70
M25 : J27 to J26	6,788	5.2	78	6,788	5.5	75
Overall Total	70,642	68.0	62	70,650	57.8	73
Overall Difference				8	-10.2	11

Figure C13 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2041 Core AM Peak

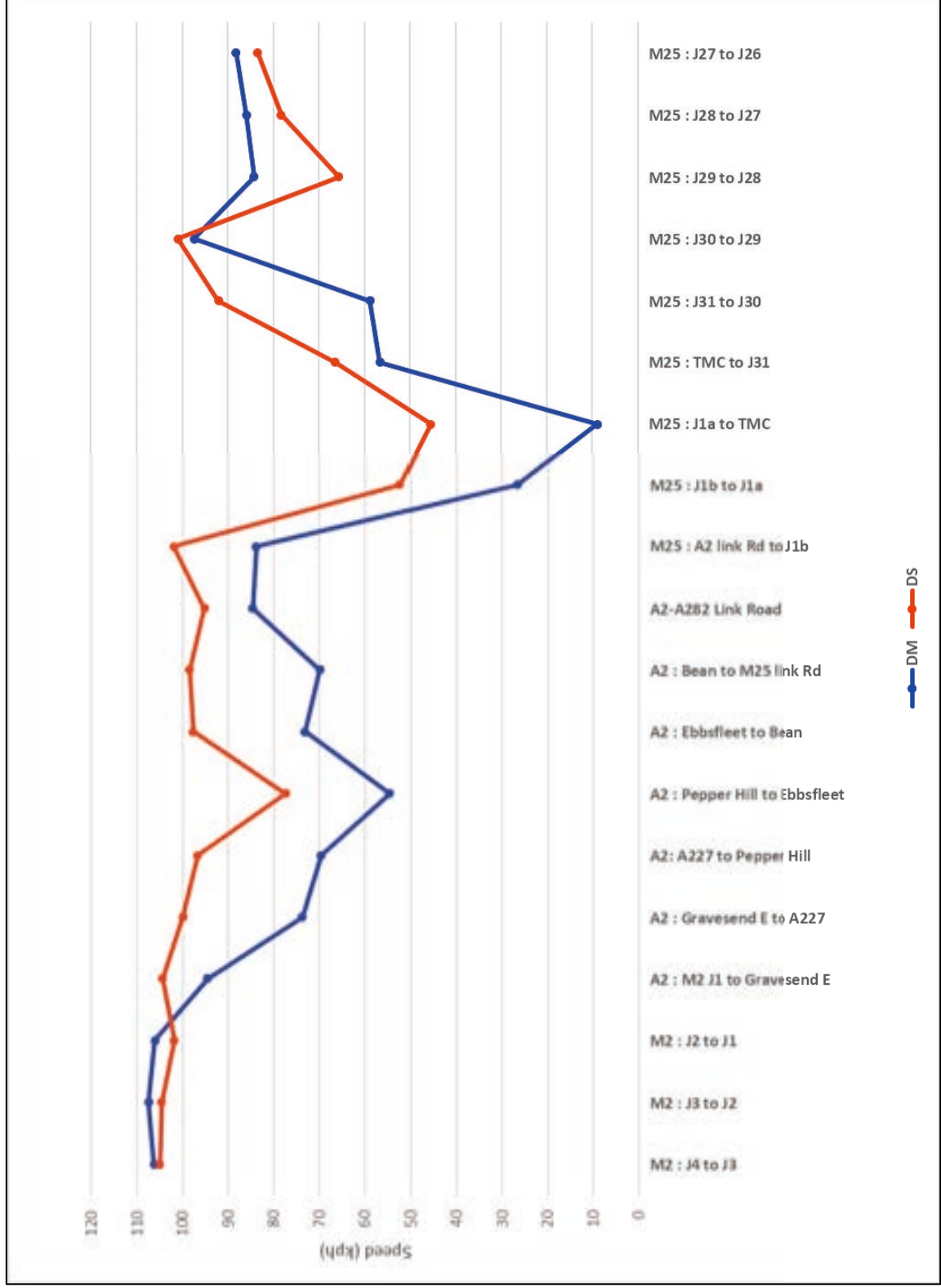


C.1.20 Table C14 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2041 core forecast in the Inter Peak. Figure C14 illustrates the speed differences.

**Table C14 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26
Northbound – 2041 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.4	106	6,084	3.5	105
M2 : J3 to J2	6,090	3.4	107	6,090	3.5	105
M2 : J2 to J1	2,874	1.6	106	2,419	1.4	102
A2 : M2 J1 to Gravesend E	3,846	2.4	95	4,379	2.5	104
A2 : Gravesend E to A227	1,884	1.5	74	1,860	1.1	100
A2: A227 to Pepper Hill	2,203	1.9	70	2,203	1.4	97
A2 : Pepper Hill to Ebbsfleet	1,635	1.8	54	1,635	1.3	77
A2 : Ebbsfleet to Bean	2,145	1.8	73	2,145	1.3	98
A2 : Bean to M25 link Rd	1,942	1.7	70	1,942	1.2	98
A2-A282 Link Road	1,481	1.1	85	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.8	84	1,048	0.6	102
M25 : J1b to J1a	1,272	2.9	27	1,272	1.5	52
M25 : J1a to TMC	587	4.0	9	587	0.8	45
M25 : TMC to J31	3,835	4.1	57	3,835	3.5	66
M25 : J31 to J30	1,061	1.1	59	1,061	0.7	92
M25 : J30 to J29	8,860	5.5	97	9,659	5.7	101
M25 : J29 to J28	4,515	3.2	84	3,670	3.4	66
M25 : J28 to J27	12,496	8.7	86	12,496	9.6	78
M25 : J27 to J26	6,788	4.6	88	6,788	4.9	83
Overall Total	70,642	55.3	77	70,650	48.7	87
Overall Difference				8	-6.7	11

Figure C14 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2041 Core Inter Peak

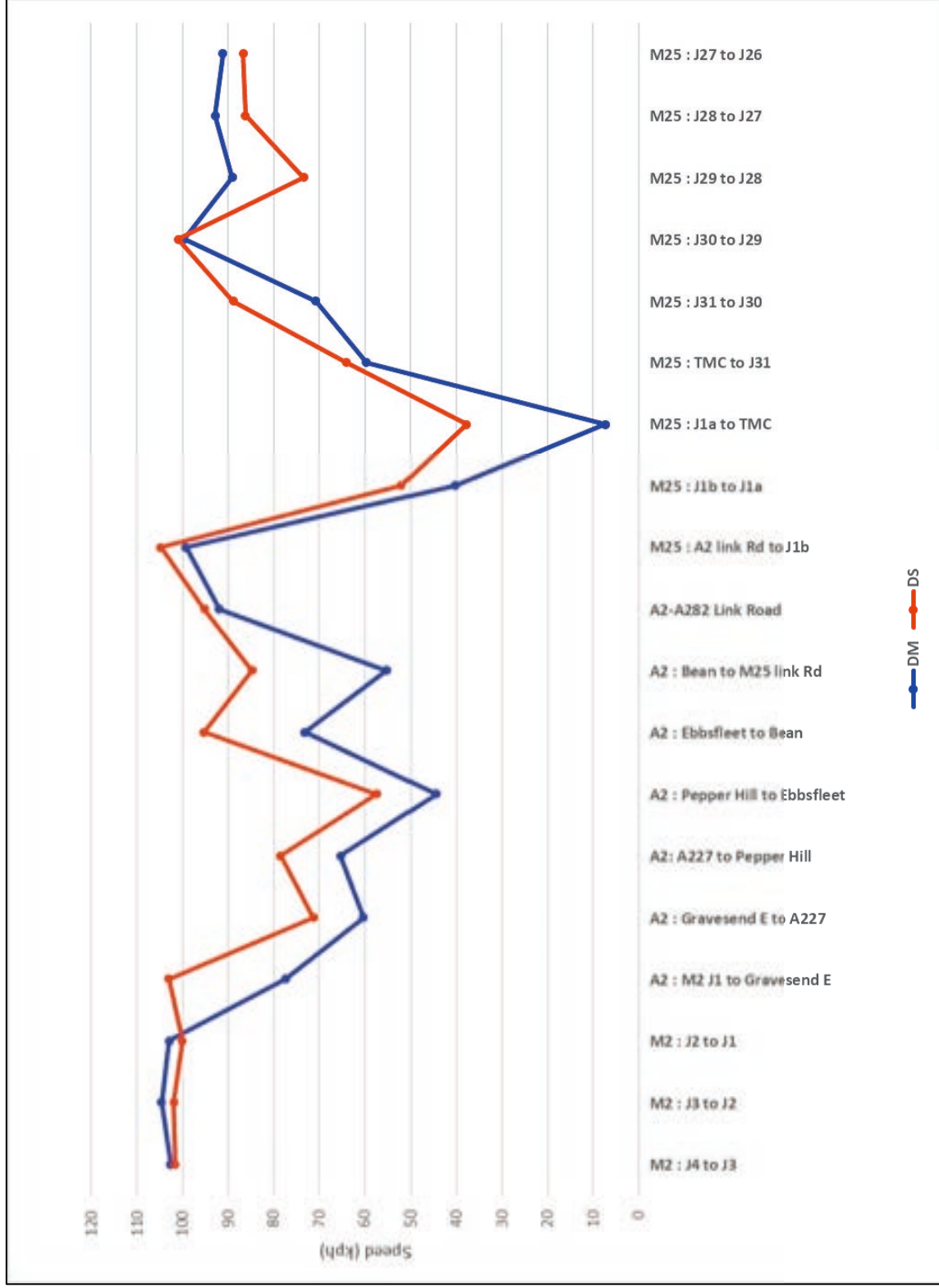


C.1.21 Table C15 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2041 core forecast in the PM Peak. Figure C15 illustrates the speed differences.

Table C15 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2041 Core PM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.6	103	6,084	3.6	102
M2 : J3 to J2	6,090	3.5	105	6,090	3.6	102
M2 : J2 to J1	2,874	1.7	103	2,419	1.5	100
A2 : M2 J1 to Gravesend E	3,846	3.0	77	4,379	2.6	103
A2 : Gravesend E to A227	1,884	1.9	60	1,860	1.6	71
A2: A227 to Pepper Hill	2,203	2.0	65	2,203	1.7	79
A2 : Pepper Hill to Ebbsfleet	1,635	2.2	44	1,635	1.7	57
A2 : Ebbsfleet to Bean	2,145	1.8	73	2,145	1.4	95
A2 : Bean to M25 link Rd	1,942	2.1	55	1,942	1.4	85
A2-A282 Link Road	1,481	1.0	92	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.6	99	1,048	0.6	105
M25 : J1b to J1a	1,272	1.9	40	1,272	1.5	52
M25 : J1a to TMC	587	4.8	7	587	0.9	38
M25 : TMC to J31	3,835	3.9	60	3,835	3.6	64
M25 : J31 to J30	1,061	0.9	71	1,061	0.7	89
M25 : J30 to J29	8,860	5.3	100	9,659	5.7	101
M25 : J29 to J28	4,515	3.0	89	3,670	3.0	73
M25 : J28 to J27	12,496	8.1	93	12,496	8.7	86
M25 : J27 to J26	6,788	4.5	91	6,788	4.7	87
Overall Total	70,642	55.7	76	70,650	49.2	86
Overall Difference				8	-6.4	10

Figure C15 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2041 Core PM Peak

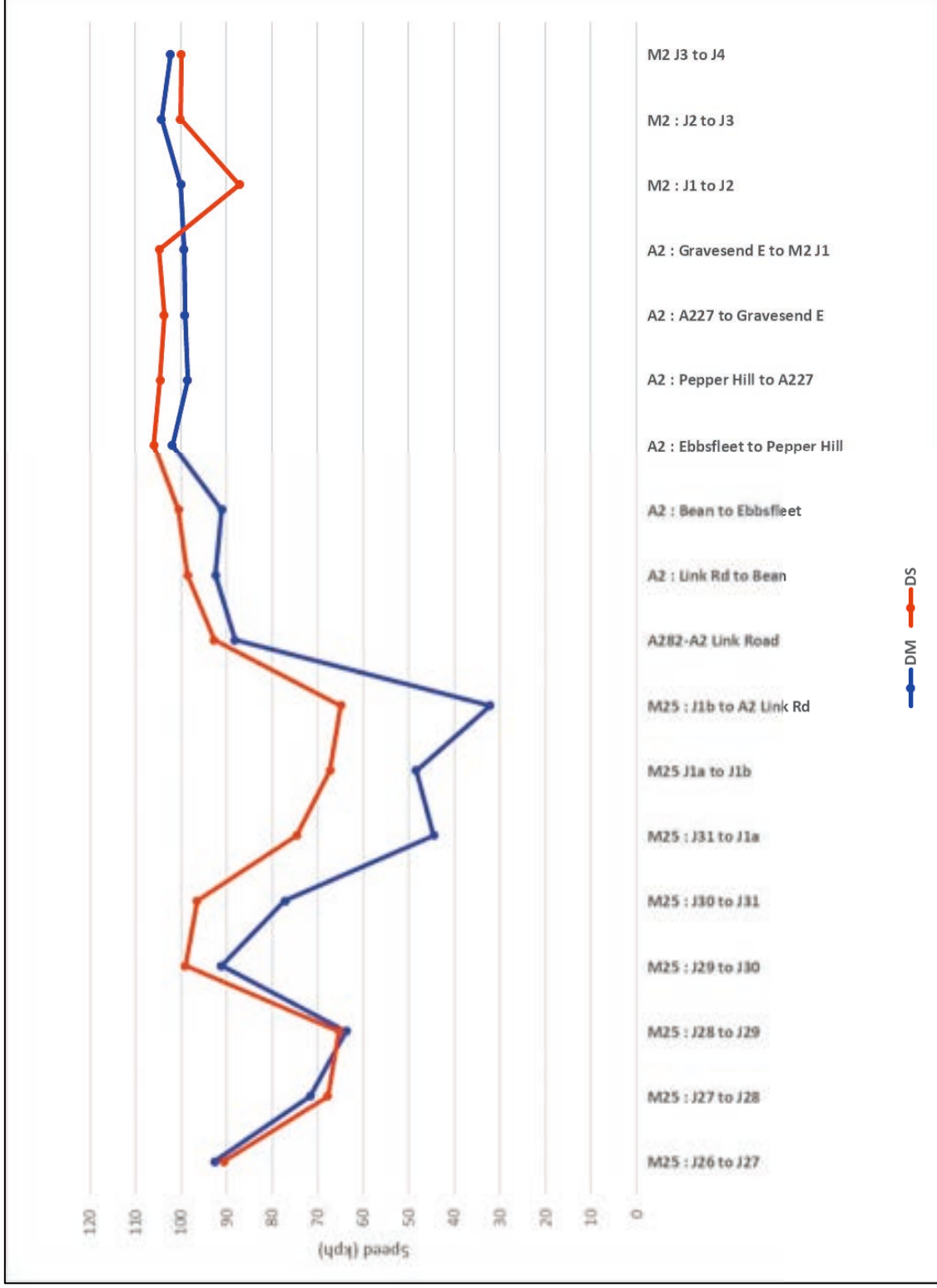


C.1.22 Table C16 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2041 core forecast in the AM Peak. Figure C16 illustrates the speed differences.

Table C16 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2041 Core AM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	4.9	93	7,492	5.0	91
M25 : J27 to J28	12,434	10.4	72	12,434	11.0	68
M25 : J28 to J29	4,528	4.3	64	4,528	4.2	65
M25 : J29 to J30	8,624	5.7	91	8,613	5.2	99
M25 : J30 to J31	1,179	0.9	77	1,179	0.7	96
M25 : J31 to J1a	4,571	6.2	45	4,571	3.7	75
M25 J1a to J1b	1,338	1.7	48	1,338	1.2	67
M25 : J1b to A2 Link Rd	1,226	2.3	32	1,226	1.1	65
A282-A2 Link Road	1,494	1.0	88	1,494	1.0	93
A2 : Link Rd to Bean	1,452	0.9	92	1,452	0.9	99
A2 : Bean to Ebbsfleet	2,949	1.9	91	2,949	1.8	101
A2 : Ebbsfleet to Pepper Hill	1,103	0.7	102	1,103	0.6	106
A2 : Pepper Hill to A227	1,901	1.2	98	1,901	1.1	104
A2 : A227 to Gravesend E	2,106	1.3	99	1,741	1.0	104
A2 : Gravesend E to M2 J1	4,247	2.6	99	5,092	2.9	105
M2 : J1 to J2	2,443	1.5	100	1,899	1.3	87
M2 : J2 to J3	6,311	3.6	104	6,311	3.8	100
M2 J3 to J4	5,937	3.5	102	5,937	3.6	100
Overall Total	71,333	54.3	79	71,258	50.0	86
Overall Difference				-75	-4.4	7

Figure C16 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2041 Core AM Peak

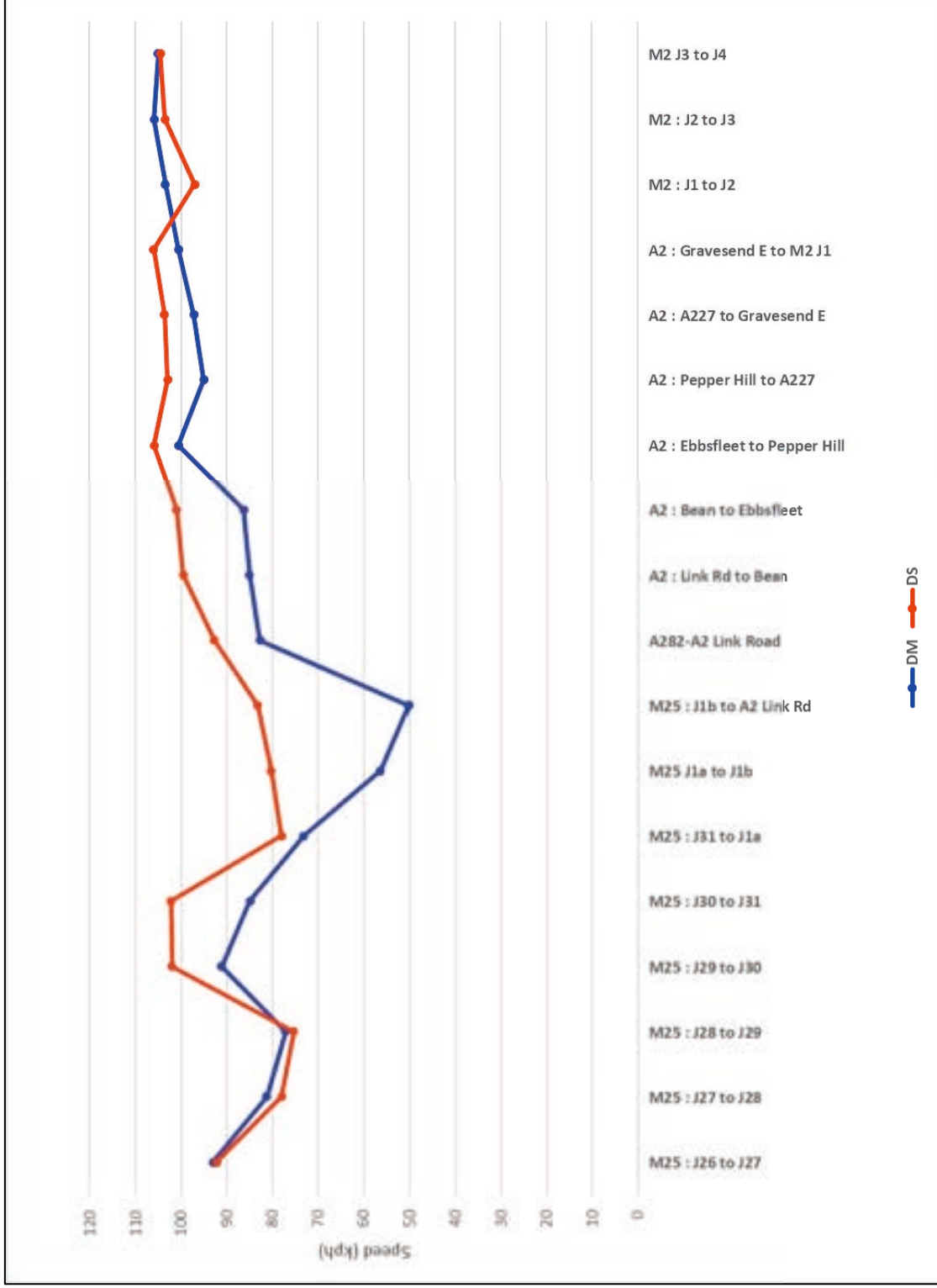


C.1.23 Table C17 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2041 core forecast in the Inter Peak. Figure C17 illustrates the speed differences.

Table C17 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2041 Core Inter Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	4.8	93	7,492	4.9	92
M25 : J27 to J28	12,434	9.2	81	12,434	9.6	78
M25 : J28 to J29	4,528	3.5	77	4,528	3.6	75
M25 : J29 to J30	8,624	5.7	91	8,613	5.1	102
M25 : J30 to J31	1,179	0.8	85	1,179	0.7	102
M25 : J31 to J1a	4,571	3.8	73	4,571	3.5	78
M25 J1a to J1b	1,338	1.4	56	1,338	1.0	80
M25 : J1b to A2 Link Rd	1,226	1.5	50	1,226	0.9	83
A282-A2 Link Road	1,494	1.1	83	1,494	1.0	93
A2 : Link Rd to Bean	1,452	1.0	85	1,452	0.9	100
A2 : Bean to Ebbsfleet	2,949	2.1	86	2,949	1.8	101
A2 : Ebbsfleet to Pepper Hill	1,103	0.7	101	1,103	0.6	106
A2 : Pepper Hill to A227	1,901	1.2	95	1,901	1.1	103
A2 : A227 to Gravesend E	2,106	1.3	97	1,741	1.0	104
A2 : Gravesend E to M2 J1	4,247	2.5	101	5,092	2.9	106
M2 : J1 to J2	2,443	1.4	103	1,899	1.2	97
M2 : J2 to J3	6,311	3.6	106	6,311	3.7	104
M2 J3 to J4	5,937	3.4	105	5,937	3.4	105
Overall Total	71,333	48.9	87	71,258	46.7	92
Overall Difference				-75	-2.3	4

Figure C17 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2041 Core Inter Peak

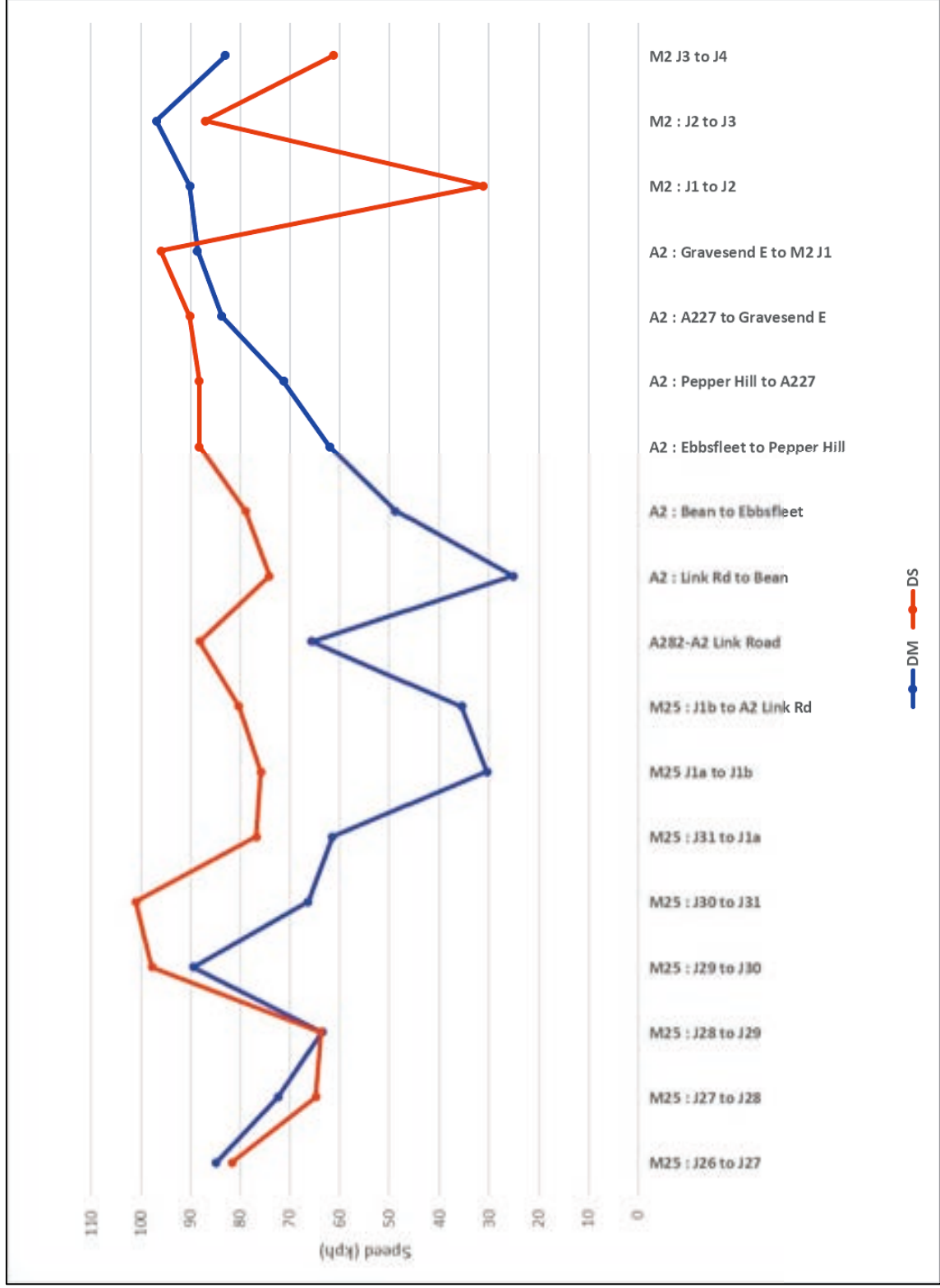


C.1.24 Table C18 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2041 core forecast in the PM Peak. Figure C18 illustrates the speed differences.

Table C18 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2041 Core PM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	5.3	85	7,492	5.5	82
M25 : J27 to J28	12,434	10.3	72	12,434	11.5	65
M25 : J28 to J29	4,528	4.3	64	4,528	4.3	64
M25 : J29 to J30	8,624	5.8	89	8,613	5.3	98
M25 : J30 to J31	1,179	1.1	66	1,179	0.7	101
M25 : J31 to J1a	4,571	4.5	61	4,571	3.6	77
M25 J1a to J1b	1,338	2.6	30	1,338	1.1	76
M25 : J1b to A2 Link Rd	1,226	2.1	36	1,226	0.9	80
A282-A2 Link Road	1,494	1.4	66	1,494	1.0	88
A2 : Link Rd to Bean	1,452	3.5	25	1,452	1.2	74
A2 : Bean to Ebbsfleet	2,949	3.6	49	2,949	2.2	79
A2 : Ebbsfleet to Pepper Hill	1,103	1.1	62	1,103	0.8	88
A2 : Pepper Hill to A227	1,901	1.6	71	1,901	1.3	88
A2 : A227 to Gravesend E	2,106	1.5	84	1,741	1.2	90
A2 : Gravesend E to M2 J1	4,247	2.9	89	5,092	3.2	96
M2 : J1 to J2	2,443	1.6	90	1,899	3.7	31
M2 : J2 to J3	6,311	3.9	97	6,311	4.4	87
M2 J3 to J4	5,937	4.3	83	5,937	5.8	61
Overall Total	71,333	61.2	70	71,258	57.5	74
Overall Difference				-75	-3.8	5

Figure C18 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2041 Core PM Peak

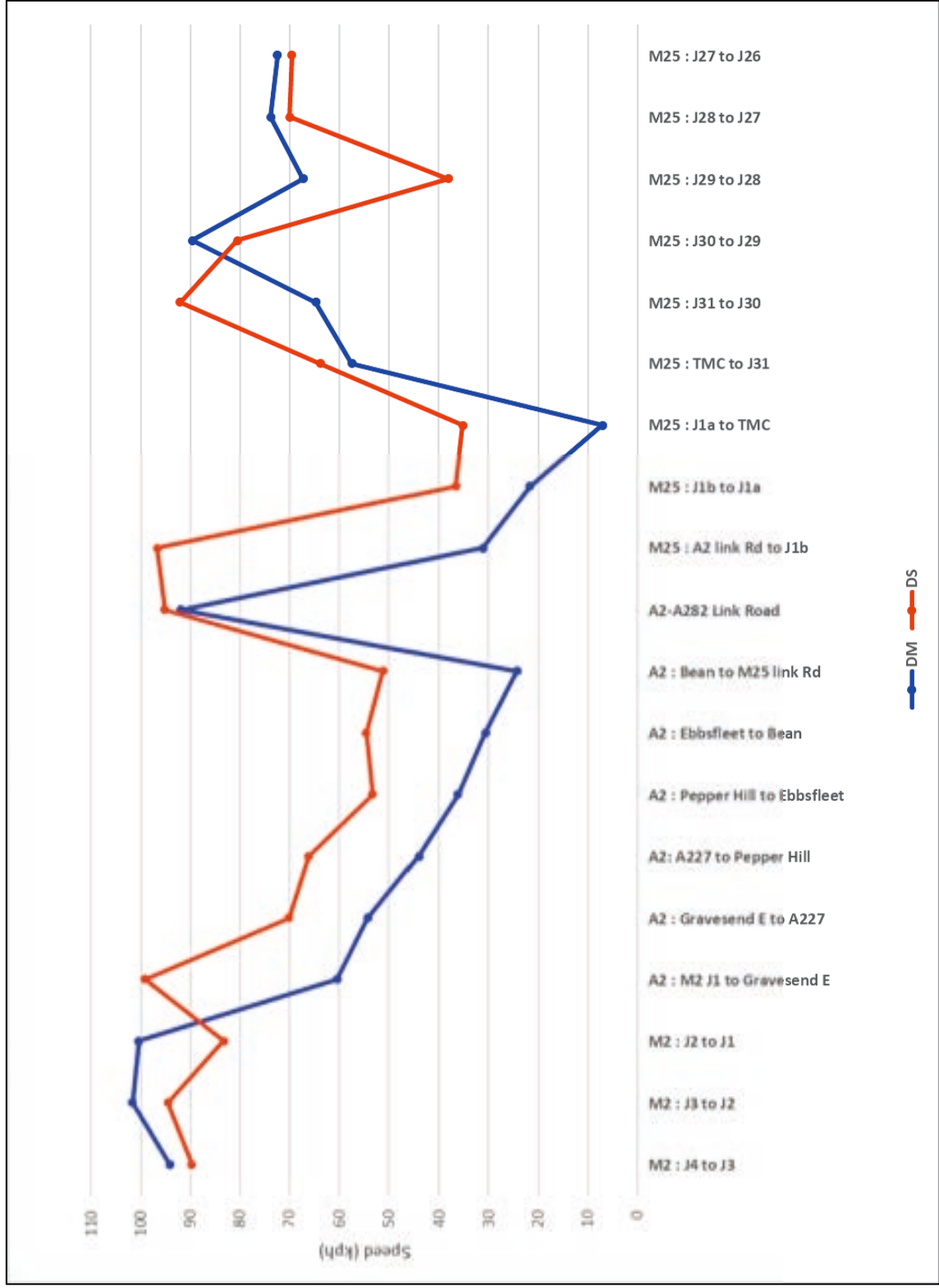


C.1.25 Table C19 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2051 core forecast in the AM Peak. Figure C19 illustrates the speed differences.

Table C19 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core AM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.9	94	6,084	4.1	90
M2 : J3 to J2	6,090	3.6	102	6,090	3.9	95
M2 : J2 to J1	2,874	1.7	100	2,419	1.7	83
A2 : M2 J1 to Gravesend E	3,846	3.8	60	4,379	2.7	99
A2 : Gravesend E to A227	1,884	2.1	54	1,860	1.6	70
A2: A227 to Pepper Hill	2,203	3.0	44	2,203	2.0	66
A2 : Pepper Hill to Ebbsfleet	1,635	2.7	36	1,635	1.8	53
A2 : Ebbsfleet to Bean	2,145	4.2	31	2,145	2.4	55
A2 : Bean to M25 link Rd	1,942	4.8	24	1,942	2.3	51
A2-A282 Link Road	1,481	1.0	92	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	2.0	31	1,048	0.7	97
M25 : J1b to J1a	1,272	3.5	22	1,272	2.1	37
M25 : J1a to TMC	587	5.0	7	587	1.0	35
M25 : TMC to J31	3,835	4.0	58	3,835	3.6	64
M25 : J31 to J30	1,061	1.0	65	1,061	0.7	92
M25 : J30 to J29	8,860	5.9	90	9,659	7.2	81
M25 : J29 to J28	4,515	4.0	67	3,670	5.8	38
M25 : J28 to J27	12,496	10.2	74	12,496	10.7	70
M25 : J27 to J26	6,788	5.6	73	6,788	5.9	70
Overall Total	70,642	72.0	59	70,650	60.9	70
Overall Difference				8	-11.1	11

Figure C19 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core AM Peak

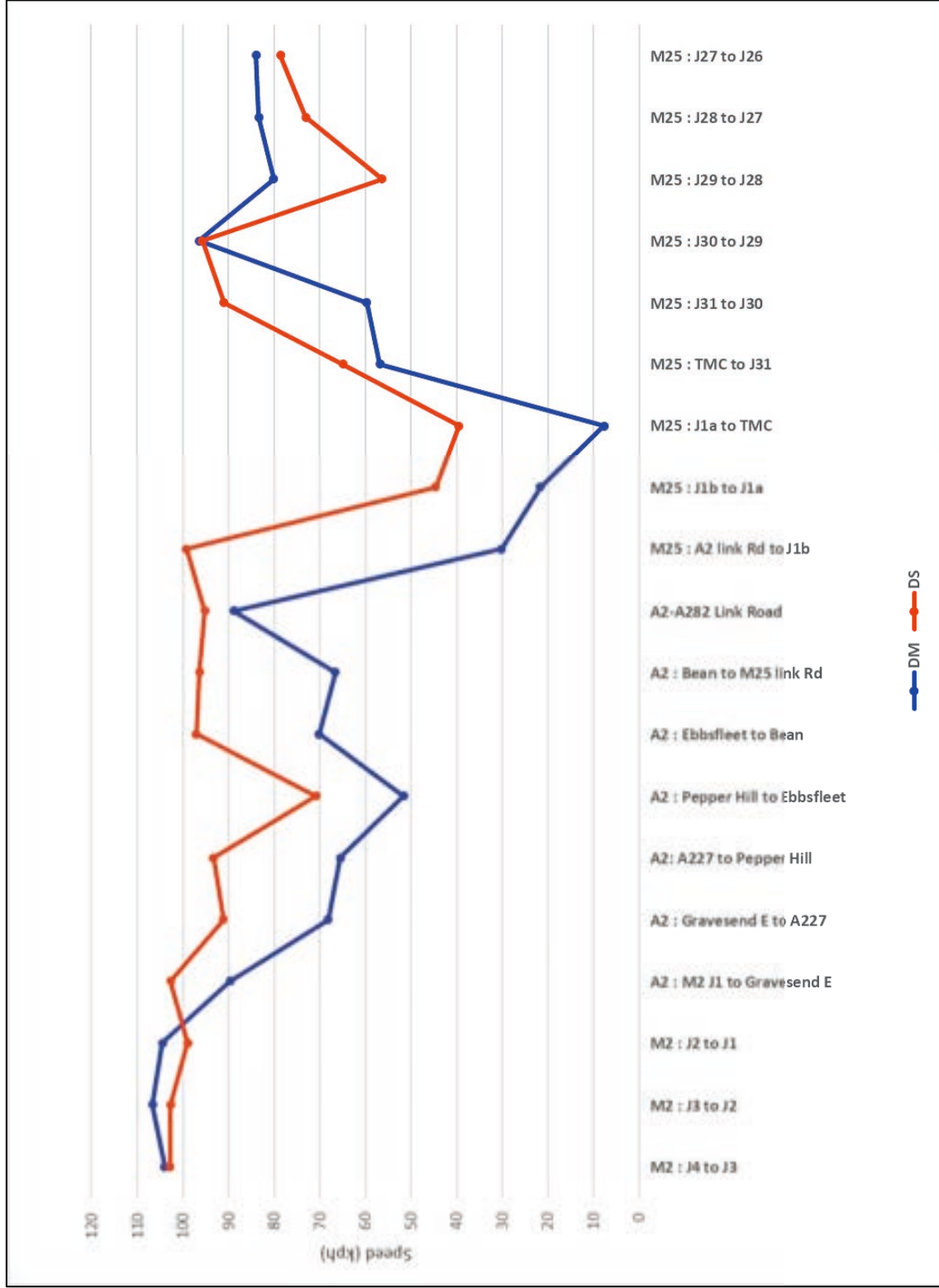


C.1.26 Table C20 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2051 core forecast in the Inter Peak. Figure C20 illustrates the speed differences.

Table C20 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core Inter Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.5	104	6,084	3.6	103
M2 : J3 to J2	6,090	3.4	107	6,090	3.6	103
M2 : J2 to J1	2,874	1.7	104	2,419	1.5	99
A2 : M2 J1 to Gravesend E	3,846	2.6	90	4,379	2.6	103
A2 : Gravesend E to A227	1,884	1.7	68	1,860	1.2	91
A2: A227 to Pepper Hill	2,203	2.0	66	2,203	1.4	93
A2 : Pepper Hill to Ebbsfleet	1,635	1.9	52	1,635	1.4	71
A2 : Ebbsfleet to Bean	2,145	1.8	70	2,145	1.3	97
A2 : Bean to M25 link Rd	1,942	1.8	67	1,942	1.2	96
A2-A282 Link Road	1,481	1.0	89	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	2.1	30	1,048	0.6	99
M25 : J1b to J1a	1,272	3.5	22	1,272	1.7	45
M25 : J1a to TMC	587	4.6	8	587	0.9	39
M25 : TMC to J31	3,835	4.1	57	3,835	3.5	65
M25 : J31 to J30	1,061	1.1	60	1,061	0.7	91
M25 : J30 to J29	8,860	5.5	96	9,659	6.1	96
M25 : J29 to J28	4,515	3.4	80	3,670	3.9	56
M25 : J28 to J27	12,496	9.0	83	12,496	10.3	73
M25 : J27 to J26	6,788	4.9	84	6,788	5.2	79
Overall Total	70,642	59.4	71	70,650	51.5	82
Overall Difference				8	-7.9	11

Figure C20 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core Inter Peak

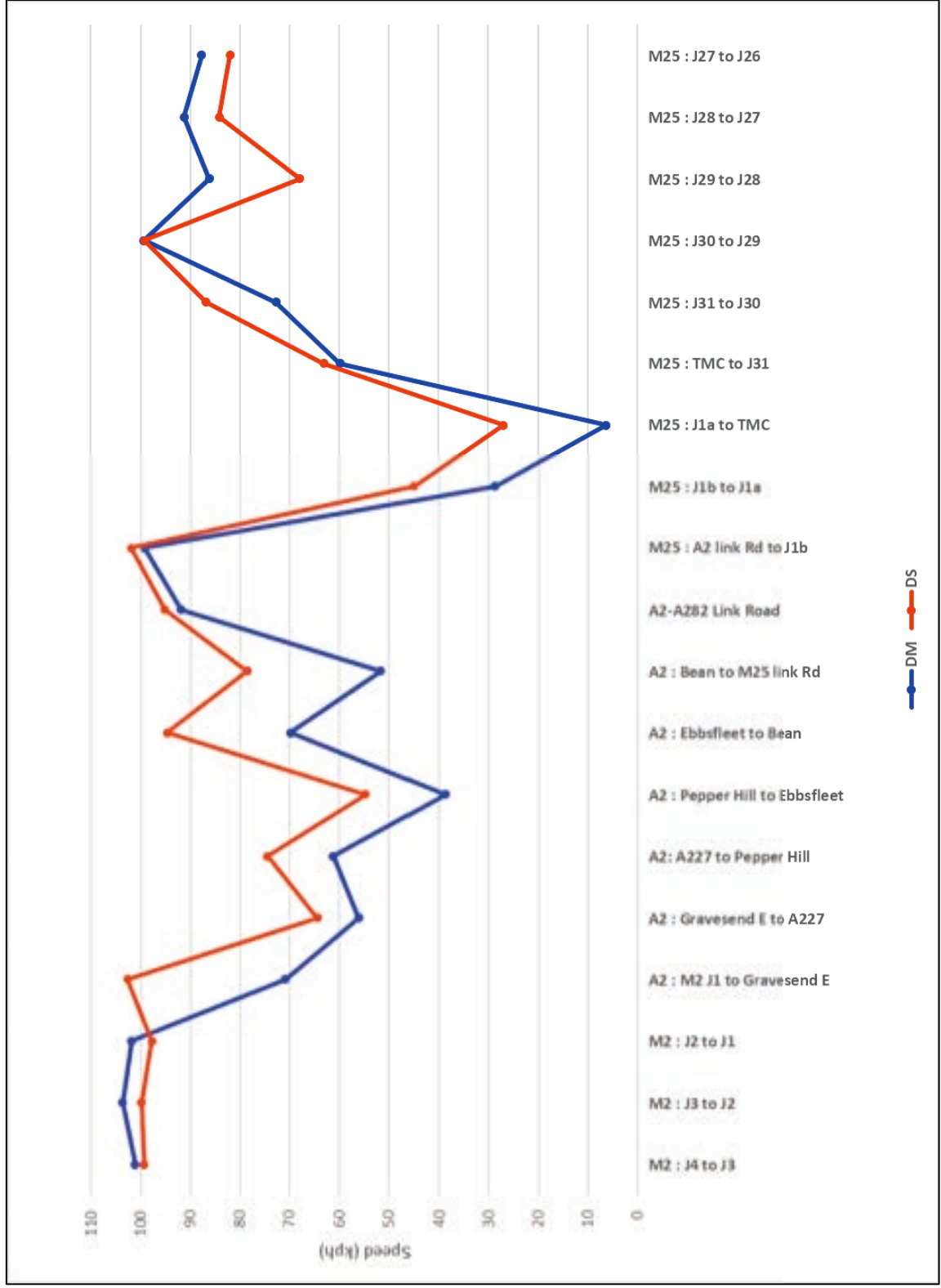


C.1.27 Table C21 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2051 core forecast in the PM Peak. Figure C21 illustrates the speed differences.

Table C21 – Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core PM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2 : J4 to J3	6,084	3.6	101	6,084	3.7	99
M2 : J3 to J2	6,090	3.5	104	6,090	3.7	100
M2 : J2 to J1	2,874	1.7	102	2,419	1.5	98
A2 : M2 J1 to Gravesend E	3,846	3.3	71	4,379	2.6	103
A2 : Gravesend E to A227	1,884	2.0	56	1,860	1.7	64
A2: A227 to Pepper Hill	2,203	2.2	61	2,203	1.8	74
A2 : Pepper Hill to Ebbsfleet	1,635	2.5	39	1,635	1.8	55
A2 : Ebbsfleet to Bean	2,145	1.8	70	2,145	1.4	95
A2 : Bean to M25 link Rd	1,942	2.3	52	1,942	1.5	79
A2-A282 Link Road	1,481	1.0	92	1,481	0.9	95
M25 : A2 link Rd to J1b	1,048	0.6	99	1,048	0.6	102
M25 : J1b to J1a	1,272	2.7	29	1,272	1.7	45
M25 : J1a to TMC	587	5.7	6	587	1.3	27
M25 : TMC to J31	3,835	3.8	60	3,835	3.6	63
M25 : J31 to J30	1,061	0.9	73	1,061	0.7	87
M25 : J30 to J29	8,860	5.4	99	9,659	5.8	99
M25 : J29 to J28	4,515	3.1	86	3,670	3.2	68
M25 : J28 to J27	12,496	8.2	91	12,496	8.9	84
M25 : J27 to J26	6,788	4.6	88	6,788	5.0	82
Overall Total	70,642	58.9	72	70,650	51.4	82
Overall Difference				8	-7.5	10

Figure C21 – Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core PM Peak

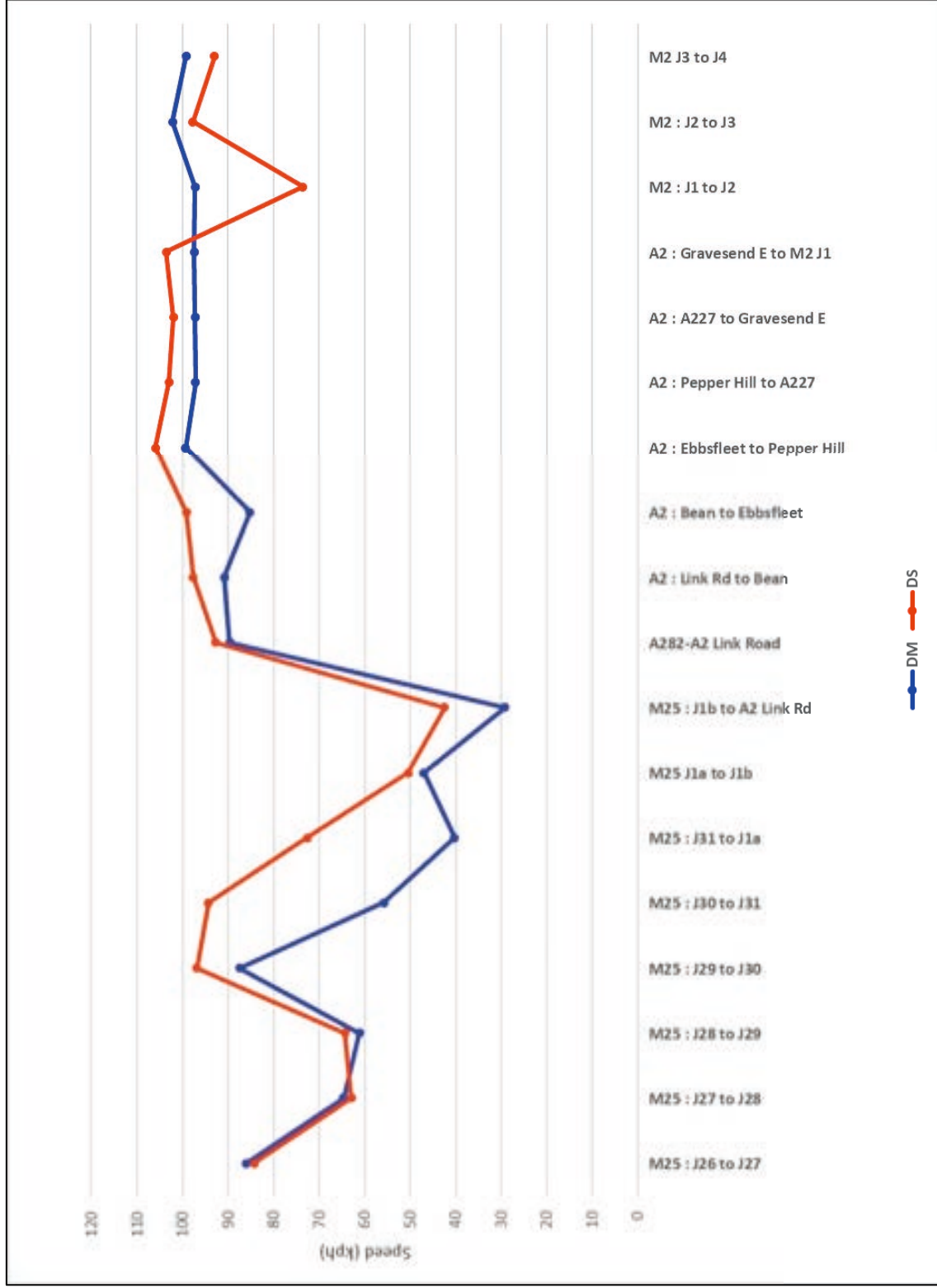


C.1.28 Table C22 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2051 core forecast in the AM Peak. Figure C22 illustrates the speed differences.

Table C22 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	5.2	86	7,492	5.3	84
M25 : J27 to J28	12,434	11.6	65	12,434	11.9	63
M25 : J28 to J29	4,528	4.4	61	4,528	4.2	64
M25 : J29 to J30	8,624	5.9	87	8,613	5.3	97
M25 : J30 to J31	1,179	1.3	56	1,179	0.8	94
M25 : J31 to J1a	4,571	6.8	40	4,571	3.8	73
M25 J1a to J1b	1,338	1.7	47	1,338	1.6	50
M25 : J1b to A2 Link Rd	1,226	2.5	29	1,226	1.7	42
A282-A2 Link Road	1,494	1.0	90	1,494	1.0	93
A2 : Link Rd to Bean	1,452	1.0	91	1,452	0.9	98
A2 : Bean to Ebbsfleet	2,949	2.1	85	2,949	1.8	99
A2 : Ebbsfleet to Pepper Hill	1,103	0.7	99	1,103	0.6	106
A2 : Pepper Hill to A227	1,901	1.2	97	1,901	1.1	103
A2 : A227 to Gravesend E	2,106	1.3	97	1,741	1.0	102
A2 : Gravesend E to M2 J1	4,247	2.6	97	5,092	3.0	104
M2 : J1 to J2	2,443	1.5	97	1,899	1.6	74
M2 : J2 to J3	6,311	3.7	102	6,311	3.9	98
M2 J3 to J4	5,937	3.6	99	5,937	3.8	93
Overall Total	71,333	58.0	74	71,258	53.2	80
Overall Difference				-75	-4.8	7

Figure C22 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak

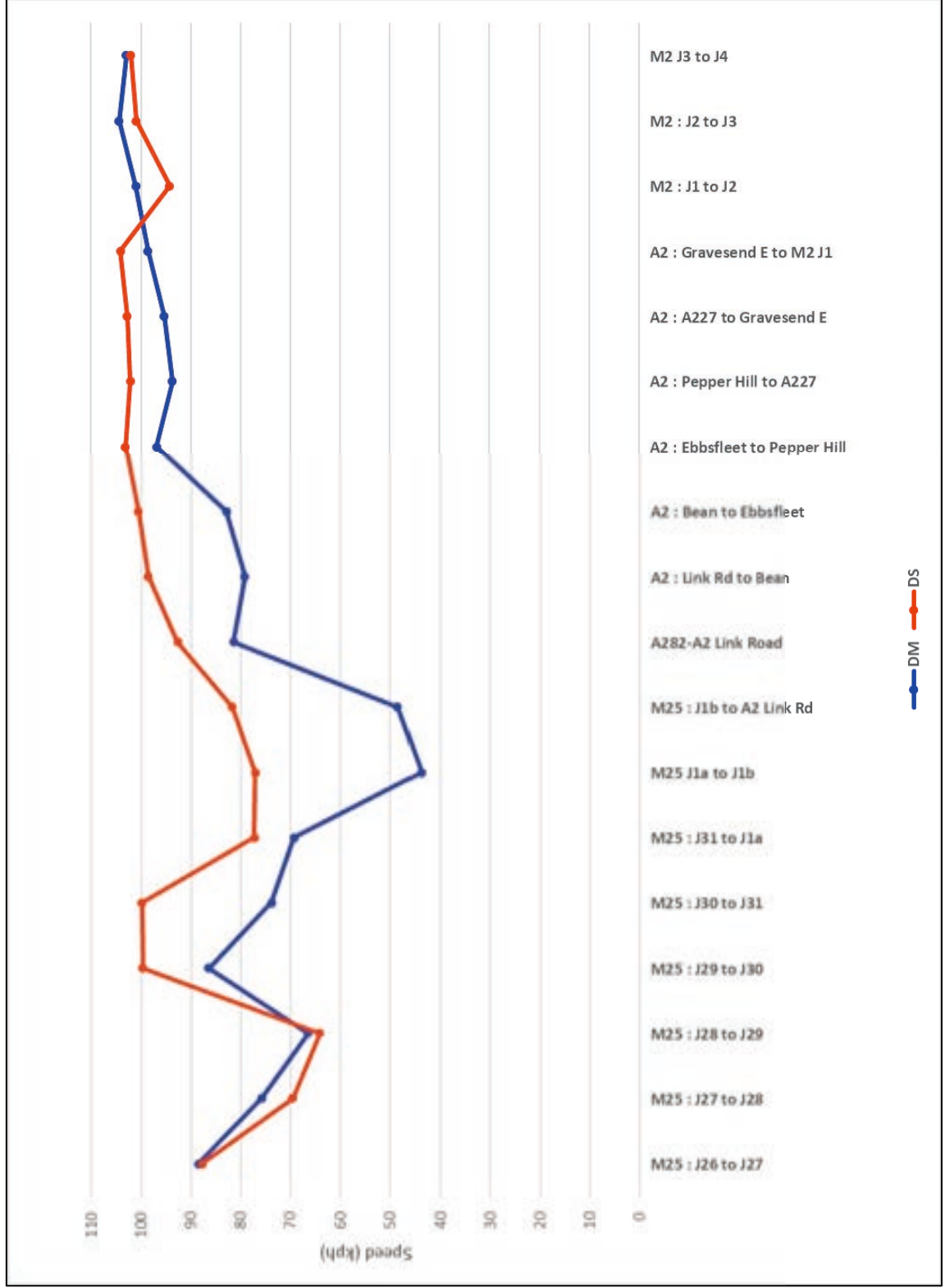


C.1.29 Table C23 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2051 core forecast in the Inter Peak. Figure C23 illustrates the speed differences.

Table C23 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	5.1	89	7,492	5.1	88
M25 : J27 to J28	12,434	9.8	76	12,434	10.7	70
M25 : J28 to J29	4,528	4.1	67	4,528	4.2	64
M25 : J29 to J30	8,624	6.0	86	8,613	5.2	100
M25 : J30 to J31	1,179	1.0	74	1,179	0.7	100
M25 : J31 to J1a	4,571	4.0	69	4,571	3.6	77
M25 J1a to J1b	1,338	1.8	44	1,338	1.0	77
M25 : J1b to A2 Link Rd	1,226	1.5	49	1,226	0.9	82
A282-A2 Link Road	1,494	1.1	81	1,494	1.0	93
A2 : Link Rd to Bean	1,452	1.1	79	1,452	0.9	99
A2 : Bean to Ebbsfleet	2,949	2.1	83	2,949	1.8	101
A2 : Ebbsfleet to Pepper Hill	1,103	0.7	97	1,103	0.6	103
A2 : Pepper Hill to A227	1,901	1.2	94	1,901	1.1	102
A2 : A227 to Gravesend E	2,106	1.3	95	1,741	1.0	103
A2 : Gravesend E to M2 J1	4,247	2.6	99	5,092	2.9	104
M2 : J1 to J2	2,443	1.5	101	1,899	1.2	94
M2 : J2 to J3	6,311	3.6	104	6,311	3.8	101
M2 J3 to J4	5,937	3.5	103	5,937	3.5	102
Overall Total	71,333	51.9	82	71,258	49.2	87
Overall Difference				-75	-2.7	4

Figure C23 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak

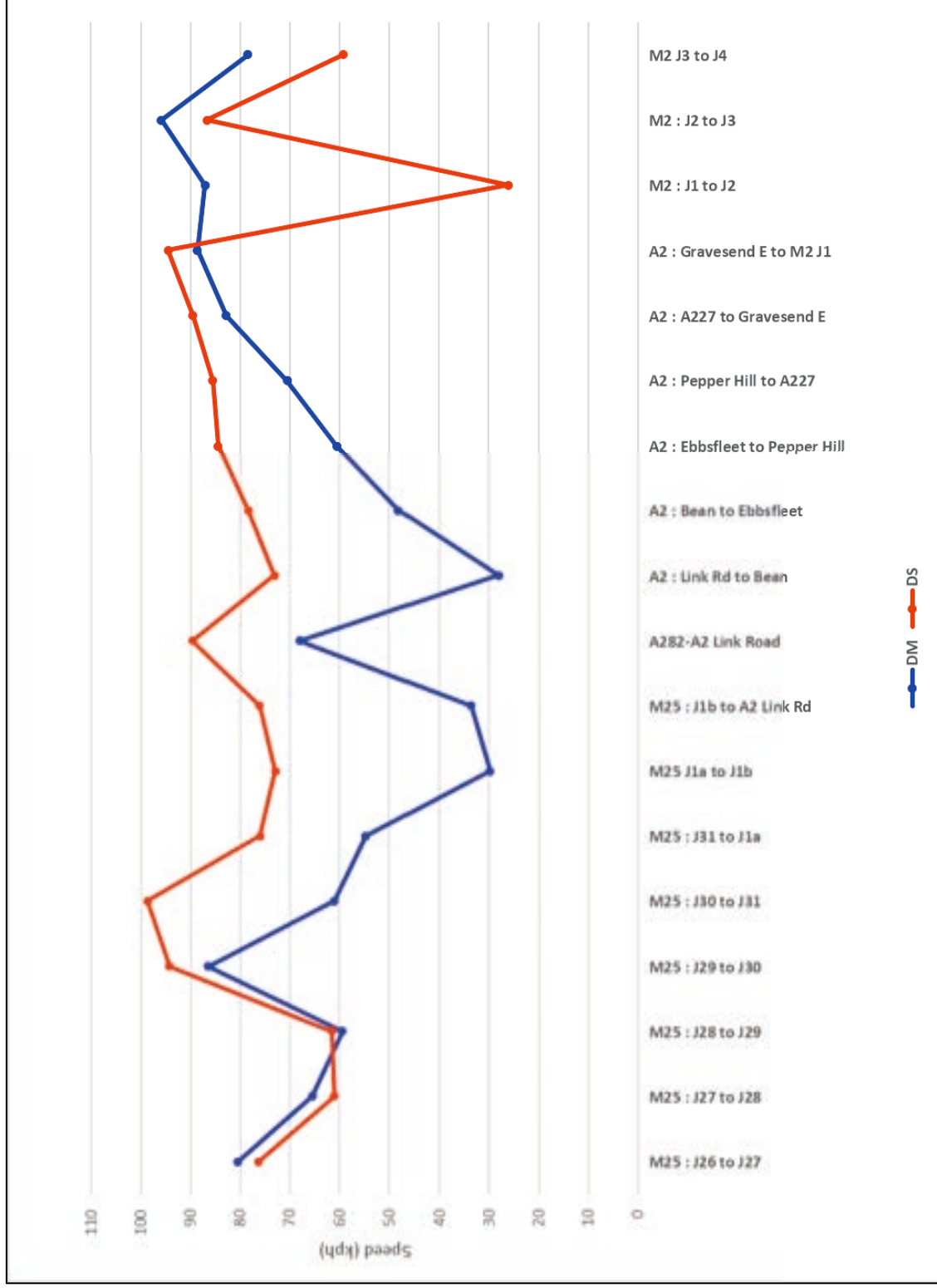


C.1.30 Table C24 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2051 core forecast in the PM Peak. Figure C24 illustrates the speed differences.

Table C24 – Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25 : J26 to J27	7,492	5.6	81	7,492	5.9	76
M25 : J27 to J28	12,434	11.4	66	12,434	12.2	61
M25 : J28 to J29	4,528	4.6	59	4,528	4.4	62
M25 : J29 to J30	8,624	6.0	86	8,613	5.5	94
M25 : J30 to J31	1,179	1.2	61	1,179	0.7	99
M25 : J31 to J1a	4,571	5.0	55	4,571	3.6	76
M25 J1a to J1b	1,338	2.7	30	1,338	1.1	73
M25 : J1b to A2 Link Rd	1,226	2.2	34	1,226	1.0	76
A282-A2 Link Road	1,494	1.3	68	1,494	1.0	90
A2 : Link Rd to Bean	1,452	3.1	28	1,452	1.2	73
A2 : Bean to Ebbsfleet	2,949	3.7	48	2,949	2.3	78
A2 : Ebbsfleet to Pepper Hill	1,103	1.1	61	1,103	0.8	84
A2 : Pepper Hill to A227	1,901	1.6	71	1,901	1.3	86
A2 : A227 to Gravesend E	2,106	1.5	83	1,741	1.2	90
A2 : Gravesend E to M2 J1	4,247	2.9	89	5,092	3.2	94
M2 : J1 to J2	2,443	1.7	87	1,899	4.4	26
M2 : J2 to J3	6,311	4.0	96	6,311	4.4	87
M2 J3 to J4	5,937	4.5	78	5,937	6.0	59
Overall Total	71,333	64.0	67	71,258	60.1	71
Overall Difference				-75	-3.8	4

Figure C24 – Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak



This page is intentionally blank

Appendix D– Sensitivity Tests – Outputs to Economic Assessment

D.1 Introduction

D.1.1 This appendix provides comparisons of the Do Minimum and Do Something forecasts for the low and high growth sensitivity tests for each of the forecast years. The statistics provided are similar to those presented for the core scenario under Chapter 7 of this report. The general message is the same as for the core scenario so no detailed commentary on these results is provided here. The statistics are provided for completeness.

D.2 LTAM 2026 Low Growth – Outputs to Economic Assessment

D.2.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2026 low growth forecast.

Matrix Total Comparison

D.2.2 Table D1 and Table D2 provide a comparison of the VDM output core scenario matrices and the 2026 low growth matrices for all movements and relevant movements respectively.

Table D1 – Matrix Total Comparison – 2026 Low Growth All Movements (PCU's)

Userclass	Time Period	All Movements									
		Core Scenario VDM Output Matrix (2026 DM)	Low Growth Scenario (2026 DM)				Core Scenario VDM Output Matrix (2026 DS)	Low Growth Scenario (2026 DS)			
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	477,510	442,191	-35,319	-7.4%	477,622	442,303	-35,319	-7.4%		
	IP	415,775	385,055	-30,720	-7.4%	415,757	385,037	-30,720	-7.4%		
	PM	571,010	528,767	-42,243	-7.4%	571,054	528,811	-42,243	-7.4%		
	OP	167,610	155,234	-12,376	-7.4%	167,597	155,221	-12,376	-7.4%		
Car Commute Low Income	AM	439,637	406,688	-32,949	-7.5%	439,630	406,681	-32,949	-7.5%		
	IP	200,245	185,282	-14,963	-7.5%	200,257	185,295	-14,963	-7.5%		
	PM	503,840	466,156	-37,685	-7.5%	503,862	466,177	-37,685	-7.5%		
	OP	80,670	74,639	-6,031	-7.5%	80,670	74,639	-6,031	-7.5%		
Car Commute Medium Income	AM	890,638	823,916	-66,722	-7.5%	890,736	824,014	-66,722	-7.5%		
	IP	307,816	284,828	-22,989	-7.5%	307,809	284,820	-22,989	-7.5%		
	PM	967,470	895,176	-72,294	-7.5%	967,524	895,230	-72,294	-7.5%		
	OP	124,034	114,766	-9,268	-7.5%	124,024	114,756	-9,268	-7.5%		
Car Commute High Income	AM	758,503	701,696	-56,807	-7.5%	758,449	701,642	-56,807	-7.5%		
	IP	219,179	202,793	-16,386	-7.5%	219,193	202,807	-16,386	-7.5%		
	PM	782,467	723,949	-58,518	-7.5%	782,612	724,094	-58,518	-7.5%		
	OP	88,262	81,661	-6,601	-7.5%	88,259	81,658	-6,601	-7.5%		
Car Other Low Income	AM	718,997	667,553	-51,444	-7.2%	719,224	667,780	-51,444	-7.2%		
	IP	1,276,642	1,185,298	-91,344	-7.2%	1,276,572	1,185,229	-91,344	-7.2%		
	PM	1,243,820	1,154,766	-89,053	-7.2%	1,243,856	1,154,802	-89,053	-7.2%		
	OP	515,691	478,874	-36,817	-7.1%	515,663	478,846	-36,817	-7.1%		
Car Other Medium Income	AM	766,049	711,173	-54,876	-7.2%	766,198	711,322	-54,876	-7.2%		
	IP	1,019,927	946,961	-72,966	-7.2%	1,019,921	946,955	-72,966	-7.2%		
	PM	1,252,031	1,162,378	-89,653	-7.2%	1,252,037	1,162,384	-89,653	-7.2%		
	OP	411,986	382,590	-29,396	-7.1%	411,964	382,568	-29,396	-7.1%		
Car Other High Income	AM	612,598	568,687	-43,911	-7.2%	612,760	568,849	-43,911	-7.2%		
	IP	685,266	636,283	-48,983	-7.1%	685,236	636,253	-48,983	-7.1%		
	PM	948,480	880,603	-67,877	-7.2%	948,648	880,771	-67,877	-7.2%		
	OP	276,983	257,257	-19,725	-7.1%	276,939	257,214	-19,725	-7.1%		
Car Total	AM	4,663,931	4,321,903	-342,028	-7.3%	4,664,619	4,322,591	-342,028	-7.3%		
	IP	4,124,850	3,826,500	-298,349	-7.2%	4,124,744	3,826,395	-298,349	-7.2%		
	PM	6,269,117	5,811,795	-457,322	-7.3%	6,269,591	5,812,269	-457,322	-7.3%		
	OP	1,665,235	1,545,022	-120,213	-7.2%	1,665,115	1,544,902	-120,213	-7.2%		
LGV	AM	950,818	893,246	-57,572	-6.1%	950,818	893,246	-57,572	-6.1%		
	IP	820,243	770,650	-49,593	-6.0%	820,243	770,650	-49,593	-6.0%		
	PM	685,879	644,382	-41,497	-6.1%	685,879	644,382	-41,497	-6.1%		
	OP	329,431	309,432	-19,999	-6.1%	329,431	309,432	-19,999	-6.1%		
HGV	AM	410,596	380,971	-29,625	-7.2%	410,596	380,971	-29,625	-7.2%		
	IP	408,518	379,058	-29,460	-7.2%	408,518	379,058	-29,460	-7.2%		
	PM	257,203	238,659	-18,544	-7.2%	257,203	238,659	-18,544	-7.2%		
	OP	162,992	151,158	-11,834	-7.3%	162,992	151,158	-11,834	-7.3%		

Table D2 – Matrix Total Comparison – 2026 Low Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2026 DM)	Low Growth Scenario (2026 DM)			Core Scenario VDM Output Matrix (2026 DS)	Low Growth Scenario (2026 DS)		
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	39,443	36,519	-2,924	-7.4%	39,576	36,652	-2,924	-7.4%
	IP	27,509	25,506	-2,003	-7.3%	27,506	25,503	-2,003	-7.3%
	PM	39,337	36,455	-2,883	-7.3%	39,402	36,519	-2,883	-7.3%
	OP	10,914	10,123	-792	-7.3%	10,899	10,107	-792	-7.3%
Car Commute Low Income	AM	31,431	29,068	-2,363	-7.5%	31,419	29,056	-2,363	-7.5%
	IP	17,564	16,257	-1,307	-7.4%	17,577	16,269	-1,307	-7.4%
	PM	33,179	30,703	-2,476	-7.5%	33,198	30,722	-2,476	-7.5%
	OP	6,929	6,409	-520	-7.5%	6,929	6,409	-520	-7.5%
Car Commute Medium Income	AM	67,369	62,263	-5,107	-7.6%	67,464	62,357	-5,107	-7.6%
	IP	26,817	24,827	-1,990	-7.4%	26,810	24,820	-1,990	-7.4%
	PM	65,892	60,950	-4,942	-7.5%	65,950	61,008	-4,942	-7.5%
	OP	10,648	9,853	-795	-7.5%	10,638	9,843	-795	-7.5%
Car Commute High Income	AM	64,358	59,487	-4,871	-7.6%	64,304	59,433	-4,871	-7.6%
	IP	22,865	21,169	-1,697	-7.4%	22,882	21,185	-1,697	-7.4%
	PM	64,247	59,431	-4,816	-7.5%	64,397	59,581	-4,816	-7.5%
	OP	9,103	8,425	-678	-7.4%	9,099	8,422	-678	-7.4%
Car Other Low Income	AM	72,708	67,524	-5,183	-7.1%	73,004	67,821	-5,183	-7.1%
	IP	101,910	94,750	-7,160	-7.0%	101,935	94,775	-7,160	-7.0%
	PM	107,262	99,671	-7,591	-7.1%	107,378	99,787	-7,591	-7.1%
	OP	41,340	38,493	-2,848	-6.9%	41,296	38,449	-2,848	-6.9%
Car Other Medium Income	AM	80,261	74,536	-5,725	-7.1%	80,479	74,754	-5,725	-7.1%
	IP	94,994	88,327	-6,667	-7.0%	95,070	88,403	-6,667	-7.0%
	PM	119,718	111,256	-8,462	-7.1%	119,807	111,345	-8,462	-7.1%
	OP	38,534	35,884	-2,649	-6.9%	38,500	35,850	-2,649	-6.9%
Car Other High Income	AM	75,854	70,421	-5,432	-7.2%	76,071	70,638	-5,432	-7.1%
	IP	77,471	72,025	-5,446	-7.0%	77,501	72,055	-5,446	-7.0%
	PM	107,130	99,544	-7,586	-7.1%	107,373	99,787	-7,586	-7.1%
	OP	31,612	29,441	-2,171	-6.9%	31,569	29,398	-2,171	-6.9%
Car Total	AM	431,424	399,820	-31,605	-7.3%	432,317	400,712	-31,605	-7.3%
	IP	369,129	342,860	-26,270	-7.1%	369,282	343,012	-26,270	-7.1%
	PM	536,765	498,010	-38,755	-7.2%	537,505	498,750	-38,755	-7.2%
	OP	149,080	138,627	-10,453	-7.0%	148,930	138,477	-10,453	-7.0%
LGV	AM	113,770	106,993	-6,776	-6.0%	113,770	106,993	-6,776	-6.0%
	IP	86,087	81,041	-5,046	-5.9%	86,087	81,041	-5,046	-5.9%
	PM	88,562	83,308	-5,254	-5.9%	88,562	83,308	-5,254	-5.9%
	OP	33,240	31,217	-2,024	-6.1%	33,240	31,217	-2,024	-6.1%
HGV	AM	61,952	57,635	-4,317	-7.0%	61,952	57,635	-4,317	-7.0%
	IP	63,892	59,463	-4,429	-6.9%	63,892	59,463	-4,429	-6.9%
	PM	38,670	35,988	-2,682	-6.9%	38,670	35,988	-2,682	-6.9%
	OP	24,274	22,531	-1,743	-7.2%	24,274	22,531	-1,743	-7.2%

Highway Assignment Model (HAM) Convergence Statistics

D.2.3 Table D3 to Table D5 provide the highway assignment model convergence statistics for the 2026 low growth DM forecasts. Table D6 to Table D8 provide the highway assignment model convergence statistics for the 2026 low growth DS forecasts.

Table D3 – HAM Convergence Statistics – 2026 Low Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
48	0.0064	0.0094	97.9	99.1
49	0.0070	0.0097	97.8	99.1
50	0.0075	0.0078	98.0	99.2
51	0.0061	0.0077	98.0	99.2

Table D4 – HAM Convergence Statistics – 2026 Low Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
61	0.0088	0.011	97.6	99.3
62	0.0188	0.0053	97.9	99.3
63	0.0052	0.011	98.2	99.5
64	0.0121	0.0056	97.7	99.3

Table D5 – HAM Convergence Statistics – 2026 Low Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
98	0.0055	0.013	98.1	99.1
99	0.0115	0.0093	97.5	98.8
100	0.0052	0.013	97.9	99.0
101	0.0105	0.0079	97.6	98.9

Table D6 – HAM Convergence Statistics – 2026 Low Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
45	0.0090	0.0095	97.5	99.1
46	0.0074	0.0079	97.6	99.1
47	0.0065	0.0093	98.1	99.2
48	0.0066	0.011	97.8	99.1

Table D7 – HAM Convergence Statistics – 2026 Low Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
55	0.0052	0.012	98.3	99.5
56	0.0162	0.0052	97.6	99.3
57	0.0048	0.011	98.4	99.4
58	0.0121	0.0055	97.8	99.3

Table D8 – HAM Convergence Statistics – 2026 Low Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
61	0.0052	0.0087	98.2	99.2
62	0.0050	0.0078	97.8	99.1
63	0.0059	0.0061	98.2	99.1
64	0.0041	0.0062	98.5	99.3

D.2.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

D.2.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D1 to Figure D3 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.

D.2.6 Table D9 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D1 – Actual Flow Comparison Plot – 2026 Low Growth DM Vs DS AM Peak

Figure D2 – Actual Flow Comparison Plot – 2026 Low Growth DM Vs DS Inter Peak



Figure D3 – Actual Flow Comparison Plot – 2026 Low Growth DM Vs DS PM Peak



Table D9 – Cross River Traffic Flows – 2026 Low Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	3,146	2,647	-499	-16%	1,870	1,593	-277	-15%	3,351	2,156	-1,195	-36%	8,367	6,396	-1,971	-24%
		IP	2,728	2,086	-642	-24%	821	627	-194	-24%	2,908	1,769	-1,138	-39%	6,457	4,483	-1,974	-31%
		PM	4,430	3,389	-1,041	-23%	1,152	844	-308	-27%	2,106	1,133	-973	-46%	7,688	5,366	-2,322	-30%
	LTC	AM	0	1,912			0	348			0	1,268			0	3,529		
		IP	0	1,518			0	208			0	1,181			0	2,908		
		PM	0	3,015			0	331			0	1,009			0	4,354		
	Total	AM	3,146	4,559	1,413	45%	1,870	1,941	71	4%	3,351	3,424	73	2%	8,367	9,925	1,557	19%
		IP	2,728	3,604	876	32%	821	836	14	2%	2,908	2,951	43	1%	6,457	7,390	934	14%
		PM	4,430	6,404	1,974	45%	1,152	1,174	22	2%	2,106	2,142	35	2%	7,688	9,720	2,032	26%
NB	Dartford	AM	3,546	2,926	-621	-17%	1,464	1,048	-416	-28%	2,145	1,224	-921	-43%	7,155	5,197	-1,958	-27%
		IP	2,701	2,260	-441	-16%	985	792	-193	-20%	2,787	1,630	-1,157	-41%	6,473	4,682	-1,790	-28%
		PM	3,644	3,373	-271	-7%	1,045	847	-198	-19%	2,005	1,259	-746	-37%	6,693	5,478	-1,215	-18%
	LTC	AM	0	2,376			0	465			0	1,000			0	3,841		
		IP	0	1,220			0	212			0	1,221			0	2,653		
		PM	0	1,390			0	207			0	751			0	2,348		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,546	5,301	1,755	49%	1,464	1,513	49	3%	2,145	2,224	79	4%	7,155	9,038	1,883	26%
		IP	2,701	3,480	780	29%	985	1,004	19	2%	2,787	2,851	64	2%	6,473	7,335	862	13%
		PM	3,644	4,762	1,119	31%	1,045	1,054	10	1%	2,005	2,010	5	0%	6,693	7,827	1,133	17%

D.2.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D10 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

Table D10 – Key Corridor Traffic Flows – 2026 Low Growth DM Vs DS (Hourly Flows in PCU’s)

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,098	9,180	0.77	7,638	9,180	0.83	540	8%
		IP	6,505	9,180	0.71	6,718	9,180	0.73	213	3%
		PM	6,552	9,180	0.71	6,859	9,180	0.75	307	5%
	M25 J28 to M25 J29 (SB)	AM	7,169	9,115	0.79	7,302	9,180	0.80	132	2%
		IP	6,298	9,115	0.69	6,510	9,180	0.71	212	3%
		PM	6,885	9,115	0.76	7,175	9,180	0.78	290	4%
B	M25 J4 to M25 J3 (NB)	AM	5,061	6,850	0.74	5,245	6,850	0.77	184	4%
		IP	4,753	6,850	0.69	4,848	6,850	0.71	95	2%
		PM	5,457	6,850	0.80	5,560	6,850	0.81	103	2%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	4,540	6,850	0.66	4,606	6,850	0.67	66	1%
		PM	4,869	6,850	0.71	5,018	6,850	0.73	149	3%
C	A13 A126 to A1012 (EB)	AM	4,443	6,303	0.70	3,604	6,286	0.57	-839	-19%
		IP	4,545	6,280	0.72	4,025	6,274	0.64	-520	-11%
		PM	5,720	6,271	0.91	5,447	6,249	0.87	-273	-5%
	A13 A1012 to A126 (WB)	AM	6,040	6,360	0.95	5,298	6,360	0.83	-742	-12%
		IP	5,047	6,360	0.79	4,143	6,360	0.65	-904	-18%
		PM	4,923	6,360	0.77	3,784	6,360	0.59	-1,140	-23%
D	A13 Orsett Cock to Manor Way (EB)	AM	3,759	6,370	0.59	4,270	6,370	0.67	511	14%
		IP	3,524	6,370	0.55	3,910	6,370	0.61	386	11%
		PM	4,639	6,370	0.73	5,188	6,370	0.81	549	12%
	A13 Manor Way to Orsett Cock (WB)	AM	4,392	6,220	0.71	5,471	6,220	0.88	1,079	25%
		IP	3,705	6,220	0.60	4,594	6,220	0.74	889	24%
		PM	3,711	6,220	0.60	4,963	6,220	0.80	1,252	34%
E	A2 A227 to Gravesend East (EB)	AM	5,459	9,230	0.59	4,226	9,215	0.46	-1,233	-23%
		IP	5,440	9,191	0.59	4,349	9,172	0.47	-1,091	-20%
		PM	8,574	9,184	0.93	7,444	9,163	0.81	-1,130	-13%
	A2 Gravesend East to A227 (WB)	AM	6,512	7,773	0.84	5,779	7,626	0.76	-732	-11%
		IP	5,501	7,669	0.72	4,366	7,496	0.58	-1,136	-21%
		PM	5,856	7,462	0.78	5,379	7,299	0.74	-477	-8%
F	M2 J1 to M2 J2 (EB)	AM	4,571	8,396	0.54	5,390	8,477	0.64	819	18%
		IP	3,742	8,522	0.44	4,724	8,640	0.55	982	26%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
	M2 J2 to M2 J1 (WB)	PM	6,073	8,493	0.71	7,327	8,585	0.85	1,255	21%
		AM	4,513	9,115	0.50	6,196	9,180	0.67	1,683	37%
		IP	3,478	9,115	0.38	4,354	9,180	0.47	876	25%
		PM	4,324	9,115	0.47	5,012	9,180	0.55	688	16%
G	M20 J3 to M20 J4 (EB)	AM	4,690	9,115	0.51	4,045	9,115	0.44	-646	-14%
		IP	4,620	9,115	0.51	4,017	9,115	0.44	-603	-13%
		PM	7,089	9,115	0.78	6,494	9,115	0.71	-595	-8%
	M20 J4 to M20 J3 (WB)	AM	7,716	9,115	0.85	6,770	9,115	0.74	-947	-12%
		IP	4,341	9,115	0.48	3,739	9,115	0.41	-602	-14%
		PM	4,081	9,115	0.45	3,505	9,115	0.38	-576	-14%

DM Vs DS Journey Time Comparisons

- D.2.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.2.9 The link based journey time comparisons for this scenario are presented in Table D11 to Table D13.
- D.2.10 Table D14 to Table D19 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D11 – Link Based Journey Time Scenario Comparison (2026 Low Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.1	82.6	23.5	16.2	86.8	-0.0	-0.8	4.2	-0.1%	-5.0%	+5.1%
	B to D	M25 J29	M25 J2	18.9	14.8	76.4	18.9	12.5	90.4	-0.0	-2.3	14.0	-0.1%	-15.5%	+18.3%
	D to F	M25 J2	M25 J7	37.4	27.2	82.5	37.4	28.2	79.6	0.0	1.0	-2.9	+0.0%	+3.6%	-3.5%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	25.1	90.6	37.8	25.0	90.8	0.0	-0.1	0.2	+0.0%	-0.2%	+0.2%
	D to B	M25 J2	M25 J29	18.6	19.6	57.0	18.4	14.0	79.2	-0.2	-5.7	22.2	-1.1%	-28.8%	+38.9%
	B to A	M25 J29	M25 J26	23.4	17.7	79.0	23.3	17.6	79.4	-0.0	-0.1	0.4	-0.1%	-0.6%	+0.5%
A13 EB	C to G	M25 J30	A1089	5.0	4.2	71.9	5.2	4.1	76.8	0.2	-0.2	4.9	+3.1%	-3.6%	+6.9%
	G to H	A1089	A130	15.7	10.8	87.3	15.7	11.1	85.0	-0.0	0.3	-2.3	-0.0%	+2.6%	-2.6%
A13 WB	H to G	A130	A1089	15.6	11.4	82.0	15.6	12.9	72.6	0.0	1.5	-9.4	+0.1%	+13.0%	-11.4%
	G to C	A1089	M25 J30	5.3	6.7	46.9	5.6	5.8	58.1	0.3	-1.0	11.2	+5.9%	-14.6%	+24.0%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.4	101.2	14.6	8.3	106.0	0.4	-0.1	4.7	+3.0%	-1.6%	+4.7%
	I to J	M2 J1	M2 J4	14.9	8.3	107.2	14.4	8.2	105.6	-0.5	-0.2	-1.6	-3.3%	-1.8%	-1.5%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.7	103.6	15.0	9.1	99.2	0.0	0.4	-4.4	+0.0%	+4.4%	-4.2%
	I to D	M2 J1	M25 J2	14.7	15.0	58.9	14.8	11.5	77.1	0.1	-3.5	18.1	+0.4%	-23.2%	+30.8%
M20 EB	E to K	M25 J3	M20 J8	35.2	24.3	86.9	35.2	23.4	90.3	0.0	-0.9	3.5	+0.0%	-3.8%	+4.0%
M20 WB	K to E	M20 J8	M25 J3	35.4	22.5	94.4	35.4	21.2	100.1	0.0	-1.3	5.6	+0.0%	-5.6%	+6.0%

Table D12 – Link Based Journey Time Scenario Comparison (2026 Low Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	15.3	92.3	23.5	14.6	96.6	-0.0	-0.7	4.3	-0.1%	-4.6%	+4.6%
	B to D	M25 J29	M25 J2	18.9	12.6	89.9	18.9	11.9	95.2	-0.0	-0.7	5.4	-0.1%	-5.7%	+6.0%
	D to F	M25 J2	M25 J7	37.4	22.3	100.7	37.4	22.3	100.7	0.0	-0.0	0.1	+0.0%	-0.1%	+0.1%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	24.3	93.6	37.8	24.3	93.6	0.0	0.0	-0.1	+0.0%	+0.1%	-0.1%
	D to B	M25 J2	M25 J29	18.6	15.9	70.6	18.4	13.4	82.8	-0.2	-2.5	12.2	-1.1%	-15.7%	+17.3%
	B to A	M25 J29	M25 J26	23.4	15.2	92.0	23.3	14.8	94.6	-0.0	-0.4	2.6	-0.1%	-2.8%	+2.9%
A13 EB	C to G	M25 J30	A1089	5.0	4.2	71.3	5.2	4.2	74.4	0.2	-0.0	3.1	+3.1%	-1.2%	+4.3%
	G to H	A1089	A130	15.7	10.6	89.1	15.7	10.8	87.4	-0.0	0.2	-1.7	-0.0%	+1.9%	-1.9%
A13 WB	H to G	A130	A1089	15.6	10.5	89.1	15.6	11.2	83.6	0.0	0.7	-5.5	+0.1%	+6.7%	-6.2%
	G to C	A1089	M25 J30	5.3	4.9	64.7	5.6	4.8	69.7	0.3	-0.1	5.0	+5.9%	-1.7%	+7.7%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.3	102.1	14.6	8.3	106.0	0.4	-0.1	3.9	+3.0%	-0.8%	+3.8%
	I to J	M2 J1	M2 J4	14.9	8.2	108.8	14.4	8.0	107.8	-0.5	-0.2	-0.9	-3.3%	-2.4%	-0.9%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.3	109.0	15.0	8.4	107.9	0.0	0.1	-1.1	+0.0%	+1.0%	-1.0%
	I to D	M2 J1	M25 J2	14.7	9.3	94.8	14.8	8.6	103.5	0.1	-0.8	8.7	+0.4%	-8.1%	+9.2%
M20 EB	E to K	M25 J3	M20 J8	35.2	22.0	95.9	35.2	21.9	96.2	0.0	-0.1	0.3	+0.0%	-0.3%	+0.3%
M20 WB	K to E	M20 J8	M25 J3	35.4	19.7	107.6	35.4	19.6	108.3	0.0	-0.1	0.7	+0.0%	-0.7%	+0.7%

Table D13 – Link Based Journey Time Scenario Comparison (2026 Low Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.5	85.8	23.5	16.1	87.7	-0.0	-0.4	1.9	-0.1%	-2.3%	+2.2%
	B to D	M25 J29	M25 J2	18.9	13.7	82.5	18.9	12.2	92.9	-0.0	-1.6	10.4	-0.1%	-11.3%	+12.7%
	D to F	M25 J2	M25 J7	37.4	22.1	101.4	37.4	22.2	101.2	0.0	0.1	-0.2	+0.0%	+0.2%	-0.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	27.8	81.7	37.8	28.0	81.2	0.0	0.2	-0.5	+0.0%	+0.6%	-0.6%
	D to B	M25 J2	M25 J29	18.6	20.1	55.7	18.4	14.3	77.4	-0.2	-5.8	21.7	-1.1%	-28.9%	+39.0%
	B to A	M25 J29	M25 J26	23.4	15.1	92.9	23.3	14.5	96.7	-0.0	-0.6	3.8	-0.1%	-4.0%	+4.1%
A13 EB	C to G	M25 J30	A1089	5.0	5.9	51.0	5.2	5.1	61.2	0.2	-0.8	10.2	+3.1%	-14.1%	+20.0%
	G to H	A1089	A130	15.7	11.5	82.2	15.7	12.6	74.6	-0.0	1.2	-7.6	-0.0%	+10.2%	-9.3%
A13 WB	H to G	A130	A1089	15.6	10.5	89.0	15.6	11.5	81.0	0.0	1.1	-8.0	+0.1%	+10.0%	-9.0%
	G to C	A1089	M25 J30	5.3	4.8	65.8	5.6	4.7	71.6	0.3	-0.1	5.9	+5.9%	-2.8%	+8.9%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	12.3	69.0	14.6	9.6	90.9	0.4	-2.7	22.0	+3.0%	-21.9%	+31.9%
	I to J	M2 J1	M2 J4	14.9	9.1	98.0	14.4	9.9	87.7	-0.5	0.7	-10.3	-3.3%	+8.0%	-10.5%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.5	106.8	15.0	8.6	105.4	0.0	0.1	-1.5	+0.0%	+1.4%	-1.4%
	I to D	M2 J1	M25 J2	14.7	10.5	84.1	14.8	9.1	97.0	0.1	-1.4	12.9	+0.4%	-13.0%	+15.4%
M20 EB	E to K	M25 J3	M20 J8	35.2	26.1	80.8	35.2	26.3	80.2	0.0	0.2	-0.6	+0.0%	+0.7%	-0.7%
M20 WB	K to E	M20 J8	M25 J3	35.4	19.8	107.4	35.4	19.6	108.1	0.0	-0.1	0.7	+0.0%	-0.7%	+0.7%

Table D14 – Route Based Journey Time Comparison North to South Movements (2026 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.7	57.7	64.1	61.7	57.2	64.7	0.0	-0.5	0.6	+0.1%	-0.9%	+1.0%
1 to 6	Cheshunt	Godstone	91.6	78.2	70.2	91.6	77.4	71.1	0.0	-0.9	0.8	+0.1%	-1.1%	+1.2%
1 to 7	Cheshunt	Southfleet	60.6	54.5	66.7	60.7	53.0	68.8	0.1	-1.6	2.1	+0.2%	-2.9%	+3.2%
1 to 8	Cheshunt	Maidstone	88.0	71.4	73.9	88.0	68.9	76.6	0.0	-2.5	2.7	+0.0%	-3.4%	+3.6%
1 to 9	Cheshunt	Rochester	76.8	71.9	64.1	70.8	67.0	63.4	-6.0	-4.9	-0.7	-7.9%	-6.8%	-1.1%
1 to 10	Cheshunt	Rainham	92.3	75.5	73.3	87.7	69.5	75.7	-4.6	-6.0	2.4	-5.0%	-8.0%	+3.2%
2 to 5	Romford	Bexley	31.7	45.1	42.2	31.8	44.6	42.8	0.0	-0.6	0.6	+0.1%	-1.3%	+1.4%
2 to 6	Romford	Godstone	61.6	65.7	56.3	61.6	64.7	57.2	0.0	-1.0	0.9	+0.0%	-1.5%	+1.5%
2 to 7	Romford	Southfleet	30.7	42.0	43.8	30.8	40.3	45.8	0.1	-1.6	1.9	+0.3%	-3.9%	+4.4%
2 to 8	Romford	Maidstone	58.0	58.8	59.2	58.0	56.3	61.9	0.0	-2.6	2.7	+0.0%	-4.3%	+4.6%
2 to 9	Romford	Rochester	45.3	59.9	45.3	47.5	52.5	54.2	2.1	-7.4	8.9	+4.7%	-12.4%	+19.5%
2 to 10	Romford	Rainham	62.3	62.9	59.4	63.8	55.1	69.4	1.5	-7.8	10.0	+2.3%	-12.4%	+16.8%
3 to 5	Brentwood	Bexley	33.3	34.3	58.3	33.3	33.3	60.0	-0.0	-1.0	1.7	-0.0%	-2.9%	+2.9%
3 to 6	Brentwood	Godstone	63.2	54.8	69.2	63.2	53.5	70.9	-0.0	-1.4	1.7	-0.0%	-2.5%	+2.5%
3 to 7	Brentwood	Southfleet	32.3	31.1	62.2	32.3	29.1	66.7	0.1	-2.0	4.5	+0.2%	-6.5%	+7.2%
3 to 8	Brentwood	Maidstone	59.6	48.0	74.6	59.6	45.1	79.4	-0.0	-2.9	4.8	-0.0%	-6.1%	+6.5%
3 to 9	Brentwood	Rochester	48.5	48.5	59.9	42.4	43.2	58.9	-6.1	-5.4	-1.0	-12.6%	-11.1%	-1.7%
3 to 10	Brentwood	Rainham	63.9	52.1	73.6	59.3	45.6	78.0	-4.6	-6.5	4.3	-7.3%	-12.4%	+5.9%
4 to 5	Basildon	Bexley	36.6	42.1	52.1	36.6	39.4	55.7	-0.0	-2.7	3.6	-0.0%	-6.4%	+6.8%
4 to 6	Basildon	Godstone	66.5	62.7	63.6	66.5	59.6	66.9	-0.0	-3.1	3.3	-0.0%	-4.9%	+5.2%
4 to 7	Basildon	Southfleet	35.5	39.0	54.7	33.4	27.8	71.9	-2.1	-11.1	17.2	-6.0%	-28.5%	+31.5%
4 to 8	Basildon	Maidstone	62.9	55.8	67.6	47.5	46.7	61.0	-15.4	-9.1	-6.6	-24.5%	-16.3%	-9.8%
4 to 9	Basildon	Rochester	51.7	56.3	55.1	35.6	40.9	52.3	-16.1	-15.4	-2.8	-31.1%	-27.4%	-5.1%
4 to 10	Basildon	Rainham	67.2	59.9	67.3	52.5	43.3	72.7	-14.6	-16.5	5.4	-21.8%	-27.6%	+8.0%

Table D15 – Route Based Journey Time Comparison North to South Movements (2026 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.9	48.5	76.6	61.9	48.0	77.4	-0.0	-0.5	0.8	-0.1%	-1.1%	+1.0%
1 to 6	Cheshunt	Godstone	91.3	64.3	85.2	91.3	63.7	85.9	-0.0	-0.6	0.7	-0.0%	-0.9%	+0.8%
1 to 7	Cheshunt	Southfleet	60.7	47.0	77.5	60.7	46.4	78.6	-0.0	-0.6	1.0	-0.1%	-1.4%	+1.3%
1 to 8	Cheshunt	Maidstone	88.0	62.0	85.1	82.4	60.5	81.7	-5.6	-1.5	-3.5	-6.4%	-2.4%	-4.1%
1 to 9	Cheshunt	Rochester	75.9	62.4	73.0	70.8	58.0	73.3	-5.1	-4.5	0.3	-6.7%	-7.2%	+0.4%
1 to 10	Cheshunt	Rainham	91.4	66.6	82.3	86.7	61.8	84.3	-4.7	-4.9	1.9	-5.1%	-7.3%	+2.4%
2 to 5	Romford	Bexley	35.5	38.5	55.4	35.5	37.2	57.3	-0.0	-1.2	1.8	-0.0%	-3.2%	+3.3%
2 to 6	Romford	Godstone	64.9	54.2	71.8	64.9	53.0	73.5	-0.0	-1.3	1.7	-0.0%	-2.3%	+2.4%
2 to 7	Romford	Southfleet	34.4	36.9	55.8	34.4	35.6	57.9	-0.0	-1.3	2.1	-0.0%	-3.6%	+3.8%
2 to 8	Romford	Maidstone	61.6	52.0	71.2	56.0	49.8	67.5	-5.6	-2.2	-3.6	-9.1%	-4.2%	-5.1%
2 to 9	Romford	Rochester	49.5	52.4	56.7	44.4	47.2	56.4	-5.1	-5.2	-0.3	-10.3%	-9.9%	-0.4%
2 to 10	Romford	Rainham	65.0	56.6	69.0	60.4	51.0	71.0	-4.6	-5.6	2.1	-7.1%	-9.8%	+3.0%
3 to 5	Brentwood	Bexley	32.7	30.2	64.8	32.6	29.4	66.7	-0.0	-0.9	1.8	-0.1%	-2.8%	+2.8%
3 to 6	Brentwood	Godstone	62.0	46.0	80.9	62.0	45.1	82.4	-0.0	-0.9	1.5	-0.1%	-1.9%	+1.9%
3 to 7	Brentwood	Southfleet	31.5	28.7	65.8	31.5	27.7	68.1	-0.0	-1.0	2.2	-0.1%	-3.4%	+3.4%
3 to 8	Brentwood	Maidstone	58.8	43.8	80.6	53.1	41.9	76.1	-5.6	-1.8	-4.6	-9.6%	-4.2%	-5.6%
3 to 9	Brentwood	Rochester	46.0	44.4	62.1	43.0	38.9	66.3	-3.0	-5.5	4.2	-6.4%	-12.3%	+6.7%
3 to 10	Brentwood	Rainham	62.2	48.4	77.2	57.5	43.2	80.0	-4.7	-5.2	2.8	-7.5%	-10.7%	+3.6%
4 to 5	Basildon	Bexley	39.3	33.3	70.8	39.3	32.4	72.9	-0.0	-1.0	2.1	-0.1%	-2.9%	+2.9%
4 to 6	Basildon	Godstone	68.7	49.1	83.9	68.7	48.1	85.6	-0.0	-1.0	1.7	-0.1%	-2.0%	+2.0%
4 to 7	Basildon	Southfleet	38.2	31.8	72.0	33.4	25.4	79.0	-4.8	-6.4	7.0	-12.5%	-20.2%	+9.7%
4 to 8	Basildon	Maidstone	65.4	46.8	83.8	47.3	38.8	73.1	-18.2	-8.0	-10.7	-27.7%	-17.1%	-12.8%
4 to 9	Basildon	Rochester	53.3	47.2	67.7	35.7	36.2	59.1	-17.6	-11.0	-8.6	-33.1%	-23.3%	-12.7%
4 to 10	Basildon	Rainham	68.8	51.4	80.3	51.6	40.0	77.4	-17.2	-11.4	-2.9	-25.0%	-22.2%	-3.6%

Table D16 – Route Based Journey Time Comparison North to South Movements (2026 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.2	55.0	67.9	62.2	54.6	68.4	-0.0	-0.4	0.5	-0.0%	-0.7%	+0.7%
1 to 6	Cheshunt	Godstone	91.9	70.8	77.9	91.9	69.8	79.0	-0.0	-0.9	1.0	-0.0%	-1.3%	+1.3%
1 to 7	Cheshunt	Southfleet	61.0	53.0	69.0	60.9	52.5	69.6	-0.0	-0.5	0.6	-0.0%	-1.0%	+0.9%
1 to 8	Cheshunt	Maidstone	88.3	72.0	73.6	82.7	67.3	73.7	-5.6	-4.7	0.1	-6.4%	-6.5%	+0.1%
1 to 9	Cheshunt	Rochester	75.7	76.3	59.5	71.1	68.9	61.9	-4.6	-7.4	2.4	-6.0%	-9.6%	+4.0%
1 to 10	Cheshunt	Rainham	92.6	82.2	67.6	88.0	76.0	69.4	-4.7	-6.1	1.8	-5.0%	-7.5%	+2.6%
2 to 5	Romford	Bexley	38.0	43.0	53.1	35.5	42.4	50.2	-2.5	-0.6	-2.8	-6.6%	-1.4%	-5.3%
2 to 6	Romford	Godstone	67.7	58.8	69.1	65.2	57.7	67.8	-2.5	-1.1	-1.3	-3.7%	-1.9%	-1.8%
2 to 7	Romford	Southfleet	36.8	41.1	53.7	34.3	40.4	50.9	-2.5	-0.7	-2.8	-6.8%	-1.7%	-5.2%
2 to 8	Romford	Maidstone	64.1	60.1	64.1	56.0	55.2	60.9	-8.1	-4.9	-3.2	-12.6%	-8.1%	-4.9%
2 to 9	Romford	Rochester	51.5	64.3	48.0	44.4	56.8	46.9	-7.0	-7.5	-1.1	-13.7%	-11.7%	-2.2%
2 to 10	Romford	Rainham	68.4	70.2	58.5	61.3	63.9	57.5	-7.1	-6.3	-0.9	-10.4%	-9.0%	-1.6%
3 to 5	Brentwood	Bexley	33.5	34.0	59.2	33.5	33.3	60.4	-0.0	-0.7	1.2	-0.1%	-2.1%	+2.1%
3 to 6	Brentwood	Godstone	63.2	49.8	76.2	63.2	48.5	78.1	-0.0	-1.3	1.9	-0.0%	-2.5%	+2.6%
3 to 7	Brentwood	Southfleet	32.3	32.0	60.4	32.2	31.2	62.0	-0.0	-0.8	1.6	-0.1%	-2.6%	+2.6%
3 to 8	Brentwood	Maidstone	59.6	51.0	70.1	54.0	46.0	70.4	-5.6	-5.0	0.3	-9.4%	-9.8%	+0.4%
3 to 9	Brentwood	Rochester	46.9	55.3	50.9	42.5	47.6	53.6	-4.4	-7.7	2.7	-9.4%	-13.9%	+5.2%
3 to 10	Brentwood	Rainham	63.9	61.2	62.7	59.3	54.7	64.9	-4.7	-6.4	2.3	-7.3%	-10.5%	+3.6%
4 to 5	Basildon	Bexley	36.8	37.2	59.4	36.8	35.7	61.8	-0.0	-1.5	2.5	-0.0%	-4.0%	+4.2%
4 to 6	Basildon	Godstone	66.5	52.9	75.3	66.5	50.9	78.3	0.0	-2.0	3.0	+0.0%	-3.8%	+4.0%
4 to 7	Basildon	Southfleet	35.5	35.2	60.5	33.4	26.4	75.8	-2.1	-8.8	15.3	-5.9%	-24.9%	+25.2%
4 to 8	Basildon	Maidstone	62.9	54.2	69.6	47.3	41.3	68.6	-15.6	-12.9	-1.0	-24.8%	-23.7%	-1.4%
4 to 9	Basildon	Rochester	50.2	58.5	51.5	35.7	42.9	49.9	-14.5	-15.5	-1.7	-28.9%	-26.6%	-3.2%
4 to 10	Basildon	Rainham	67.2	64.4	62.6	52.5	50.0	63.0	-14.6	-14.3	0.4	-21.8%	-22.2%	+0.6%

Table D17 – Route Based Journey Time Comparison South to North Movements (2026 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	52.5	70.4	61.6	50.7	72.9	-0.0	-1.8	2.5	-0.1%	-3.5%	+3.6%
5 to 2	Bexley	Romford	33.4	41.0	48.9	32.3	38.7	50.1	-1.1	-2.3	1.2	-3.2%	-5.5%	+2.4%
5 to 3	Bexley	Brentwood	34.4	39.5	52.3	34.3	34.8	59.1	-0.2	-4.7	6.8	-0.5%	-11.9%	+13.0%
5 to 4	Bexley	Basildon	36.5	35.5	61.7	36.5	32.6	67.1	-0.0	-2.9	5.5	-0.0%	-8.2%	+8.9%
6 to 1	Godstone	Cheshunt	91.2	72.0	76.1	91.2	70.0	78.2	-0.0	-2.0	2.1	-0.0%	-2.7%	+2.8%
6 to 2	Godstone	Romford	63.0	60.4	62.6	63.0	57.6	65.6	-0.0	-2.8	3.0	-0.0%	-4.6%	+4.8%
6 to 3	Godstone	Brentwood	64.0	58.9	65.2	63.9	54.1	70.8	-0.2	-4.8	5.6	-0.3%	-8.2%	+8.7%
6 to 4	Godstone	Basildon	66.1	55.0	72.1	66.1	51.9	76.4	-0.0	-3.0	4.2	-0.0%	-5.5%	+5.9%
7 to 1	Southfleet	Cheshunt	60.7	52.4	69.4	60.6	49.1	74.1	-0.0	-3.3	4.6	-0.1%	-6.3%	+6.7%
7 to 2	Southfleet	Romford	31.8	41.2	46.3	32.5	36.8	53.0	0.7	-4.4	6.7	+2.1%	-10.7%	+14.4%
7 to 3	Southfleet	Brentwood	33.5	39.4	51.0	33.3	33.2	60.2	-0.2	-6.2	9.2	-0.6%	-15.7%	+17.9%
7 to 4	Southfleet	Basildon	35.5	35.4	60.2	35.5	26.4	80.7	-0.1	-9.0	20.5	-0.2%	-25.5%	+34.0%
8 to 1	Maidstone	Cheshunt	88.1	72.6	72.8	87.5	69.1	75.9	-0.7	-3.5	3.1	-0.8%	-4.8%	+4.2%
8 to 2	Maidstone	Romford	57.3	62.1	55.3	58.5	57.1	61.4	1.2	-5.0	6.1	+2.0%	-8.1%	+11.0%
8 to 3	Maidstone	Brentwood	61.0	59.6	61.4	55.1	53.9	61.4	-5.9	-5.7	0.0	-9.6%	-9.6%	+0.0%
8 to 4	Maidstone	Basildon	63.0	55.6	68.0	50.7	45.7	66.6	-12.3	-10.0	-1.4	-19.6%	-17.9%	-2.1%
9 to 1	Rochester	Cheshunt	77.0	75.8	61.0	73.0	64.2	68.2	-4.0	-11.6	7.3	-5.2%	-15.3%	+11.9%
9 to 2	Rochester	Romford	48.0	64.6	44.6	46.9	51.8	54.4	-1.1	-12.8	9.8	-2.3%	-19.9%	+22.0%
9 to 3	Rochester	Brentwood	49.8	62.8	47.6	44.2	47.4	56.1	-5.6	-15.4	8.4	-11.2%	-24.6%	+17.7%
9 to 4	Rochester	Basildon	51.9	58.8	52.9	39.8	39.2	60.9	-12.1	-19.6	8.0	-23.3%	-33.4%	+15.1%
10 to 1	Rainham	Cheshunt	92.6	82.5	67.4	88.5	70.8	75.1	-4.0	-11.7	7.7	-4.3%	-14.2%	+11.5%
10 to 2	Rainham	Romford	64.4	70.9	54.4	62.6	58.6	64.1	-1.8	-12.3	9.7	-2.7%	-17.4%	+17.7%
10 to 3	Rainham	Brentwood	65.4	69.4	56.5	59.8	53.9	66.5	-5.6	-15.5	10.0	-8.5%	-22.3%	+17.8%
10 to 4	Rainham	Basildon	67.4	65.5	61.8	55.3	45.8	72.6	-12.1	-19.7	10.8	-17.9%	-30.1%	+17.4%

Table D18 – Route Based Journey Time Comparison South to North Movements (2026 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	48.6	76.0	61.5	47.1	78.3	-0.1	-1.5	2.3	-0.1%	-3.0%	+3.0%
5 to 2	Bexley	Romford	35.7	35.4	60.5	35.5	34.1	62.5	-0.2	-1.3	2.0	-0.5%	-3.7%	+3.3%
5 to 3	Bexley	Brentwood	32.3	32.8	59.1	32.1	30.1	64.0	-0.2	-2.7	4.8	-0.6%	-8.1%	+8.2%
5 to 4	Bexley	Basildon	36.5	33.6	65.2	36.5	31.1	70.3	-0.0	-2.4	5.1	-0.0%	-7.3%	+7.8%
6 to 1	Godstone	Cheshunt	91.5	67.6	81.2	91.4	66.2	82.9	-0.0	-1.4	1.7	-0.0%	-2.1%	+2.1%
6 to 2	Godstone	Romford	65.6	54.4	72.2	65.4	53.2	73.8	-0.2	-1.3	1.5	-0.3%	-2.4%	+2.1%
6 to 3	Godstone	Brentwood	62.2	51.8	71.9	62.0	49.2	75.6	-0.2	-2.7	3.6	-0.3%	-5.1%	+5.1%
6 to 4	Godstone	Basildon	66.4	52.7	75.6	66.4	50.2	79.2	-0.0	-2.4	3.6	-0.0%	-4.6%	+4.8%
7 to 1	Southfleet	Cheshunt	60.7	47.9	76.0	60.6	46.3	78.6	-0.0	-1.6	2.6	-0.1%	-3.4%	+3.4%
7 to 2	Southfleet	Romford	34.7	34.7	60.1	34.6	33.2	62.4	-0.2	-1.5	2.3	-0.5%	-4.2%	+3.9%
7 to 3	Southfleet	Brentwood	31.3	32.1	58.6	31.1	29.3	63.8	-0.2	-2.8	5.3	-0.6%	-8.8%	+9.0%
7 to 4	Southfleet	Basildon	35.5	32.9	64.8	35.5	26.0	81.8	-0.1	-6.9	17.0	-0.2%	-20.9%	+26.2%
8 to 1	Maidstone	Cheshunt	88.1	67.4	78.4	83.8	65.0	77.4	-4.3	-2.5	-1.0	-4.9%	-3.6%	-1.3%
8 to 2	Maidstone	Romford	62.2	54.2	68.9	57.8	51.8	66.9	-4.4	-2.4	-2.0	-7.1%	-4.4%	-2.9%
8 to 3	Maidstone	Brentwood	58.8	51.6	68.4	55.0	46.4	71.0	-3.8	-5.1	2.6	-6.5%	-10.0%	+3.8%
8 to 4	Maidstone	Basildon	63.0	52.4	72.1	50.7	42.0	72.3	-12.4	-10.4	0.2	-19.6%	-19.8%	+0.3%
9 to 1	Rochester	Cheshunt	76.9	65.6	70.4	72.9	59.4	73.7	-4.0	-6.2	3.3	-5.2%	-9.5%	+4.7%
9 to 2	Rochester	Romford	51.1	52.4	58.5	46.9	46.2	60.9	-4.2	-6.2	2.4	-8.2%	-11.8%	+4.1%
9 to 3	Rochester	Brentwood	47.7	49.8	57.5	44.1	40.8	64.8	-3.6	-8.9	7.3	-7.5%	-17.9%	+12.7%
9 to 4	Rochester	Basildon	51.9	50.6	61.5	39.8	36.4	65.5	-12.1	-14.2	4.0	-23.3%	-28.0%	+6.5%
10 to 1	Rainham	Cheshunt	91.6	69.3	79.3	87.6	63.0	83.5	-4.0	-6.3	4.1	-4.4%	-9.1%	+5.2%
10 to 2	Rainham	Romford	65.8	56.1	70.4	61.6	49.8	74.2	-4.2	-6.2	3.8	-6.3%	-11.1%	+5.4%
10 to 3	Rainham	Brentwood	62.4	53.5	70.0	58.8	44.5	79.3	-3.6	-9.0	9.3	-5.7%	-16.8%	+13.3%
10 to 4	Rainham	Basildon	66.6	54.3	73.6	54.5	40.0	81.6	-12.1	-14.2	8.0	-18.2%	-26.2%	+10.9%

Table D19 – Route Based Journey Time Comparison South to North Movements (2026 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	51.8	71.1	61.4	50.9	72.5	-0.0	-1.0	1.3	-0.1%	-1.9%	+1.9%
5 to 2	Bexley	Romford	37.1	37.9	58.7	37.1	36.7	60.6	-0.0	-1.2	1.9	-0.1%	-3.2%	+3.2%
5 to 3	Bexley	Brentwood	32.4	38.7	50.2	34.3	34.5	59.6	1.8	-4.3	9.4	+5.6%	-11.0%	+18.7%
5 to 4	Bexley	Basildon	36.5	39.4	55.6	36.5	37.1	58.9	-0.0	-2.2	3.4	-0.0%	-5.7%	+6.0%
6 to 1	Godstone	Cheshunt	91.2	71.6	76.4	91.2	70.6	77.5	-0.0	-1.0	1.1	-0.0%	-1.4%	+1.4%
6 to 2	Godstone	Romford	66.7	57.8	69.3	66.7	56.5	70.8	-0.0	-1.2	1.4	-0.1%	-2.1%	+2.1%
6 to 3	Godstone	Brentwood	62.0	58.6	63.5	63.9	54.3	70.6	1.8	-4.3	7.0	+3.0%	-7.3%	+11.0%
6 to 4	Godstone	Basildon	66.1	59.2	67.0	66.1	56.9	69.6	-0.0	-2.3	2.6	-0.0%	-3.8%	+3.9%
7 to 1	Southfleet	Cheshunt	60.7	50.2	72.5	60.6	48.6	74.9	-0.0	-1.6	2.4	-0.1%	-3.3%	+3.3%
7 to 2	Southfleet	Romford	36.2	36.4	59.7	36.2	34.5	62.8	-0.0	-1.8	3.1	-0.1%	-5.0%	+5.2%
7 to 3	Southfleet	Brentwood	31.5	37.2	50.8	33.3	32.3	61.9	1.8	-4.9	11.1	+5.8%	-13.2%	+21.8%
7 to 4	Southfleet	Basildon	35.5	37.8	56.4	35.5	29.6	71.9	-0.1	-8.2	15.4	-0.2%	-21.6%	+27.4%
8 to 1	Maidstone	Cheshunt	88.1	67.0	78.9	88.1	65.5	80.8	-0.0	-1.6	1.8	-0.1%	-2.3%	+2.3%
8 to 2	Maidstone	Romford	63.7	53.2	71.9	63.6	51.4	74.3	-0.0	-1.8	2.4	-0.1%	-3.3%	+3.3%
8 to 3	Maidstone	Brentwood	59.0	54.0	65.6	60.8	49.2	74.2	1.8	-4.8	8.7	+3.1%	-8.9%	+13.2%
8 to 4	Maidstone	Basildon	63.0	54.6	69.3	51.8	47.6	65.2	-11.3	-7.0	-4.0	-17.9%	-12.8%	-5.8%
9 to 1	Rochester	Cheshunt	76.9	74.8	61.6	71.3	68.2	62.7	-5.6	-6.6	1.0	-7.3%	-8.8%	+1.7%
9 to 2	Rochester	Romford	52.5	60.9	51.7	46.9	54.1	52.0	-5.6	-6.8	0.3	-10.7%	-11.2%	+0.6%
9 to 3	Rochester	Brentwood	47.8	61.7	46.5	42.7	49.9	51.3	-5.2	-11.8	4.8	-10.8%	-19.1%	+10.3%
9 to 4	Rochester	Basildon	51.9	62.4	49.9	38.2	46.3	49.5	-13.7	-16.1	-0.4	-26.4%	-25.8%	-0.7%
10 to 1	Rainham	Cheshunt	92.6	74.0	75.0	88.5	66.4	80.0	-4.0	-7.6	4.9	-4.3%	-10.3%	+6.6%
10 to 2	Rainham	Romford	68.1	60.2	67.9	64.1	52.4	73.4	-4.0	-7.8	5.5	-5.9%	-12.9%	+8.1%
10 to 3	Rainham	Brentwood	63.4	61.0	62.4	59.8	48.2	74.5	-3.6	-12.8	12.1	-5.6%	-21.0%	+19.4%
10 to 4	Rainham	Basildon	67.4	61.6	65.7	55.3	44.5	74.6	-12.1	-17.1	8.9	-17.9%	-27.7%	+13.6%

D.3 LTAM 2031 Low Growth – Outputs to Economic Assessment

D.3.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2031 low growth forecast.

Matrix Total Comparison

D.3.2 Table D20 and Table D21 provide a comparison of the VDM output core scenario matrices and the 2031 low growth matrices for all movements and relevant movements respectively.

Table D20 – Matrix Total Comparison – 2031 Low Growth All Movements (PCU's)

Userclass	Time Period	All Movements									
		Core Scenario VDM Output Matrix (2031 DM)	Low Growth Scenario (2031 DM)				Core Scenario VDM Output Matrix (2031 DS)	Low Growth Scenario (2031 DS)			
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	496,876	453,619	-43,256	-8.7%	496,961	453,705	-43,256	-8.7%		
	IP	431,994	394,369	-37,624	-8.7%	431,981	394,357	-37,624	-8.7%		
	PM	593,204	541,467	-51,737	-8.7%	593,250	541,514	-51,737	-8.7%		
	OP	174,601	159,444	-15,157	-8.7%	174,585	159,427	-15,157	-8.7%		
Car Commute Low Income	AM	454,826	414,497	-40,329	-8.9%	454,807	414,477	-40,329	-8.9%		
	IP	207,834	189,516	-18,318	-8.8%	207,849	189,531	-18,318	-8.8%		
	PM	521,966	475,833	-46,133	-8.8%	521,985	475,852	-46,133	-8.8%		
	OP	83,731	76,348	-7,383	-8.8%	83,731	76,348	-7,383	-8.8%		
Car Commute Medium Income	AM	921,929	840,212	-81,717	-8.9%	922,028	840,311	-81,717	-8.9%		
	IP	319,447	291,292	-28,155	-8.8%	319,439	291,283	-28,155	-8.8%		
	PM	1,002,744	914,202	-88,542	-8.8%	1,002,798	914,257	-88,542	-8.8%		
	OP	128,679	117,328	-11,351	-8.8%	128,666	117,316	-11,351	-8.8%		
Car Commute High Income	AM	785,697	716,122	-69,575	-8.9%	785,615	716,040	-69,575	-8.9%		
	IP	227,341	207,273	-20,069	-8.8%	227,357	207,289	-20,069	-8.8%		
	PM	810,999	739,330	-71,670	-8.8%	811,160	739,490	-71,670	-8.8%		
	OP	91,557	83,472	-8,084	-8.8%	91,551	83,467	-8,084	-8.8%		
Car Other Low Income	AM	759,176	696,214	-62,961	-8.3%	759,409	696,447	-62,962	-8.3%		
	IP	1,344,901	1,233,097	-111,804	-8.3%	1,344,886	1,233,080	-111,806	-8.3%		
	PM	1,310,109	1,201,109	-109,000	-8.3%	1,310,199	1,201,198	-109,001	-8.3%		
	OP	544,614	499,548	-45,066	-8.3%	544,565	499,498	-45,067	-8.3%		
Car Other Medium Income	AM	811,109	743,899	-67,209	-8.3%	811,221	744,012	-67,209	-8.3%		
	IP	1,077,630	988,265	-89,365	-8.3%	1,077,673	988,308	-89,365	-8.3%		
	PM	1,323,071	1,213,269	-109,802	-8.3%	1,323,116	1,213,314	-109,802	-8.3%		
	OP	436,662	400,660	-36,002	-8.2%	436,624	400,622	-36,002	-8.2%		
Car Other High Income	AM	649,223	595,443	-53,780	-8.3%	649,344	595,563	-53,780	-8.3%		
	IP	725,000	665,009	-59,991	-8.3%	724,994	665,003	-59,991	-8.3%		
	PM	1,003,799	920,667	-83,132	-8.3%	1,003,995	920,862	-83,132	-8.3%		
	OP	294,134	269,975	-24,159	-8.2%	294,082	269,924	-24,159	-8.2%		
Car Total	AM	4,878,835	4,460,007	-418,828	-8.6%	4,879,385	4,460,556	-418,829	-8.6%		
	IP	4,334,147	3,968,820	-365,327	-8.4%	4,334,179	3,968,850	-365,328	-8.4%		
	PM	6,565,892	6,005,877	-560,014	-8.5%	6,566,503	6,006,487	-560,016	-8.5%		
	OP	1,753,978	1,606,775	-147,203	-8.4%	1,753,804	1,606,601	-147,203	-8.4%		
LGV	AM	1,044,988	974,477	-70,511	-6.7%	1,044,988	974,477	-70,511	-6.7%		
	IP	901,598	840,859	-60,739	-6.7%	901,598	840,859	-60,739	-6.7%		
	PM	754,014	703,191	-50,824	-6.7%	754,014	703,191	-50,824	-6.7%		
	OP	361,903	337,409	-24,494	-6.8%	361,903	337,409	-24,494	-6.8%		
HGV	AM	426,603	390,320	-36,283	-8.5%	426,603	390,320	-36,283	-8.5%		
	IP	424,378	388,298	-36,080	-8.5%	424,378	388,298	-36,080	-8.5%		
	PM	267,136	244,425	-22,711	-8.5%	267,136	244,425	-22,711	-8.5%		
	OP	169,277	154,784	-14,494	-8.6%	169,277	154,784	-14,494	-8.6%		

Table D21 – Matrix Total Comparison – 2031 Low Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2031 DM)	Low Growth Scenario (2031 DM)			Core Scenario VDM Output Matrix (2031 DS)	Low Growth Scenario (2031 DS)		
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	40,951	37,370	-3,582	-8.7%	41,057	37,476	-3,582	-8.7%
	IP	28,608	26,155	-2,453	-8.6%	28,612	26,159	-2,453	-8.6%
	PM	40,675	37,145	-3,530	-8.7%	40,746	37,215	-3,530	-8.7%
	OP	11,484	10,514	-970	-8.4%	11,467	10,497	-970	-8.5%
Car Commute Low Income	AM	32,461	29,572	-2,889	-8.9%	32,439	29,550	-2,889	-8.9%
	IP	18,273	16,674	-1,600	-8.8%	18,289	16,689	-1,600	-8.7%
	PM	34,357	31,329	-3,028	-8.8%	34,379	31,351	-3,028	-8.8%
	OP	7,194	6,558	-636	-8.8%	7,194	6,557	-636	-8.8%
Car Commute Medium Income	AM	69,399	63,145	-6,254	-9.0%	69,497	63,244	-6,254	-9.0%
	IP	27,927	25,490	-2,437	-8.7%	27,919	25,483	-2,437	-8.7%
	PM	68,076	62,024	-6,052	-8.9%	68,135	62,083	-6,052	-8.9%
	OP	11,060	10,086	-974	-8.8%	11,047	10,073	-974	-8.8%
Car Commute High Income	AM	66,221	60,256	-5,965	-9.0%	66,143	60,178	-5,965	-9.0%
	IP	23,742	21,664	-2,078	-8.8%	23,760	21,682	-2,078	-8.7%
	PM	66,265	60,367	-5,899	-8.9%	66,436	60,537	-5,899	-8.9%
	OP	9,460	8,630	-830	-8.8%	9,454	8,624	-830	-8.8%
Car Other Low Income	AM	76,597	70,250	-6,346	-8.3%	76,883	70,537	-6,346	-8.3%
	IP	107,454	98,685	-8,769	-8.2%	107,509	98,740	-8,769	-8.2%
	PM	112,114	102,817	-9,297	-8.3%	112,273	102,976	-9,297	-8.3%
	OP	44,082	40,594	-3,488	-7.9%	44,023	40,536	-3,488	-7.9%
Car Other Medium Income	AM	85,238	78,226	-7,012	-8.2%	85,403	78,392	-7,012	-8.2%
	IP	101,197	93,032	-8,165	-8.1%	101,313	93,148	-8,165	-8.1%
	PM	126,553	116,189	-10,364	-8.2%	126,675	116,311	-10,364	-8.2%
	OP	41,625	38,380	-3,245	-7.8%	41,581	38,336	-3,245	-7.8%
Car Other High Income	AM	80,554	73,901	-6,653	-8.3%	80,731	74,078	-6,653	-8.2%
	IP	82,578	75,908	-6,670	-8.1%	82,630	75,961	-6,670	-8.1%
	PM	113,464	104,173	-9,291	-8.2%	113,750	104,459	-9,291	-8.2%
	OP	34,226	31,567	-2,658	-7.8%	34,174	31,515	-2,658	-7.8%
Car Total	AM	451,421	412,720	-38,701	-8.6%	452,154	413,453	-38,701	-8.6%
	IP	389,779	357,608	-32,172	-8.3%	390,033	357,861	-32,172	-8.2%
	PM	561,503	514,042	-47,461	-8.5%	562,393	514,932	-47,461	-8.4%
	OP	159,131	146,329	-12,801	-8.0%	158,939	146,137	-12,801	-8.1%
LGV	AM	125,357	117,058	-8,299	-6.6%	125,357	117,058	-8,299	-6.6%
	IP	95,018	88,837	-6,180	-6.5%	95,018	88,837	-6,180	-6.5%
	PM	97,752	91,318	-6,435	-6.6%	97,752	91,318	-6,435	-6.6%
	OP	36,489	34,011	-2,479	-6.8%	36,489	34,011	-2,479	-6.8%
HGV	AM	64,706	59,418	-5,287	-8.2%	64,706	59,418	-5,287	-8.2%
	IP	66,722	61,298	-5,424	-8.1%	66,722	61,298	-5,424	-8.1%
	PM	40,311	37,026	-3,285	-8.1%	40,311	37,026	-3,285	-8.1%
	OP	25,309	23,174	-2,135	-8.4%	25,309	23,174	-2,135	-8.4%

Highway Assignment Model (HAM) Convergence Statistics

D.3.3 Table D22 to Table D24 provide the highway assignment model convergence statistics for the 2031 low growth DM forecasts. Table D25 to Table D27 provide the highway assignment model convergence statistics for the 2031 low growth DS forecasts.

Table D22 – HAM Convergence Statistics – 2031 Low Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
45	0.0086	0.010	97.9	99.1
46	0.0076	0.013	97.6	99.1
47	0.0072	0.0097	97.7	99.1
48	0.0083	0.0080	97.9	99.1

Table D23 – HAM Convergence Statistics – 2031 Low Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
50	0.0045	0.012	98.4	99.4
51	0.0129	0.0054	98.1	99.4
52	0.0054	0.012	98.5	99.5
53	0.0115	0.0051	97.8	99.2

Table D24 – HAM Convergence Statistics – 2031 Low Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
62	0.0068	0.0087	98.2	99.1
63	0.0057	0.0071	97.9	99.0
64	0.0045	0.0091	98.5	99.2
65	0.0063	0.010	98.0	99.0

Table D25 – HAM Convergence Statistics – 2031 Low Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
46	0.0075	0.0092	98.0	99.1
47	0.0085	0.0089	97.8	98.9
48	0.0077	0.0081	97.8	99.0
49	0.0067	0.0087	97.9	99.0

Table D26 – HAM Convergence Statistics – 2031 Low Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
61	0.0052	0.012	98.2	99.4
62	0.0140	0.0057	97.7	99.2
63	0.0048	0.012	98.3	99.4
64	0.0138	0.0062	97.8	99.3

Table D27 – HAM Convergence Statistics – 2031 Low Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
92	0.0054	0.013	98.4	99.0
93	0.0124	0.0077	97.6	98.8
94	0.0057	0.013	98.2	99.1
95	0.0143	0.0081	97.7	98.8

D.3.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

D.3.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D4 to Figure D6 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.

D.3.6 Table D28 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D4 – Actual Flow Comparison Plot – 2031 Low Growth DM Vs DS AM Peak



Figure D5 – Actual Flow Comparison Plot – 2031 Low Growth DM Vs DS Inter Peak



Figure D6 – Actual Flow Comparison Plot – 2031 Low Growth DM Vs DS PM Peak



Table D28 – Cross River Traffic Flows – 2031 Low Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	3,142	2,850	-292	-9%	1,989	1,774	-215	-11%	3,369	2,222	-1,147	-34%	8,500	6,846	-1,654	-19%
		IP	2,888	2,276	-612	-21%	908	702	-206	-23%	3,008	1,845	-1,162	-39%	6,804	4,824	-1,980	-29%
		PM	4,410	3,581	-830	-19%	1,261	932	-330	-26%	2,154	1,161	-993	-46%	7,826	5,674	-2,152	-27%
	LTC	AM	0	2,126			0	373			0	1,312			0	3,811		
		IP	0	1,677			0	226			0	1,219			0	3,121		
		PM	0	3,134			0	364			0	1,038			0	4,536		
	Total	AM	3,142	4,977	1,835	58%	1,989	2,146	158	8%	3,369	3,534	165	5%	8,500	10,657	2,157	25%
		IP	2,888	3,953	1,065	37%	908	928	20	2%	3,008	3,064	56	2%	6,804	7,945	1,141	17%
		PM	4,410	6,715	2,305	52%	1,261	1,296	34	3%	2,154	2,200	46	2%	7,826	10,211	2,385	30%
NB	Dartford	AM	3,538	3,046	-492	-14%	1,593	1,161	-432	-27%	2,186	1,262	-924	-42%	7,316	5,469	-1,847	-25%
		IP	2,775	2,449	-325	-12%	1,088	880	-208	-19%	2,877	1,687	-1,190	-41%	6,740	5,017	-1,723	-26%
		PM	3,715	3,563	-153	-4%	1,149	936	-213	-19%	2,045	1,280	-765	-37%	6,909	5,778	-1,131	-16%
	LTC	AM	0	2,515			0	510			0	1,035			0	4,061		
		IP	0	1,347			0	232			0	1,273			0	2,852		
		PM	0	1,562			0	242			0	771			0	2,576		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,538	5,562	2,023	57%	1,593	1,671	78	5%	2,186	2,297	111	5%	7,316	9,530	2,213	30%
		IP	2,775	3,796	1,022	37%	1,088	1,113	24	2%	2,877	2,960	83	3%	6,740	7,869	1,129	17%
		PM	3,715	5,125	1,410	38%	1,149	1,178	29	3%	2,045	2,051	6	0%	6,909	8,354	1,445	21%

D.3.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D29 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D29 – Key Corridor Traffic Flows – 2031 Low Growth DM Vs DS
(Hourly Flows in PCU's)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,298	9,180	0.80	8,046	9,180	0.88	748	10%
		IP	6,855	9,180	0.75	7,102	9,180	0.77	246	4%
		PM	6,680	9,180	0.73	7,099	9,180	0.77	419	6%
	M25 J28 to M25 J29 (SB)	AM	7,381	9,115	0.81	7,506	9,180	0.82	126	2%
		IP	6,601	9,115	0.72	6,842	9,180	0.75	241	4%
		PM	7,187	9,115	0.79	7,490	9,180	0.82	303	4%
B	M25 J4 to M25 J3 (NB)	AM	5,237	6,850	0.76	5,441	6,850	0.79	203	4%
		IP	5,040	6,850	0.74	5,178	6,850	0.76	138	3%
		PM	5,641	6,850	0.82	5,789	6,850	0.85	148	3%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	4,834	6,850	0.71	4,948	6,850	0.72	114	2%
		PM	4,998	6,850	0.73	5,200	6,850	0.76	202	4%
C	A13 A126 to A1012 (EB)	AM	4,706	6,304	0.75	3,859	6,287	0.61	-847	-18%
		IP	4,672	6,279	0.74	4,240	6,275	0.68	-432	-9%
		PM	5,667	6,275	0.90	5,524	6,248	0.88	-143	-3%
	A13 A1012 to A126 (WB)	AM	6,079	6,360	0.96	5,369	6,360	0.84	-710	-12%
		IP	5,206	6,360	0.82	4,324	6,360	0.68	-882	-17%
		PM	5,090	6,360	0.80	4,008	6,360	0.63	-1,082	-21%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,123	6,370	0.65	4,656	6,370	0.73	533	13%
		IP	3,680	6,370	0.58	4,141	6,370	0.65	460	13%
		PM	4,838	6,370	0.76	5,453	6,370	0.86	615	13%
	A13 Manor Way to Orsett Cock (WB)	AM	4,485	6,220	0.72	5,635	6,220	0.91	1,150	26%
		IP	3,859	6,220	0.62	4,828	6,220	0.78	969	25%
		PM	3,953	6,220	0.64	5,275	6,220	0.85	1,322	33%
E	A2 A227 to Gravesend East (EB)	AM	6,003	9,215	0.65	4,804	9,197	0.52	-1,200	-20%
		IP	5,923	9,177	0.65	4,809	9,156	0.53	-1,114	-19%
		PM	8,498	9,179	0.93	7,491	9,155	0.82	-1,006	-12%
	A2 Gravesend East to A227 (WB)	AM	6,584	7,771	0.85	5,865	7,633	0.77	-719	-11%
		IP	5,768	7,682	0.75	4,770	7,513	0.63	-998	-17%
		PM	6,214	7,491	0.83	5,785	7,347	0.79	-430	-7%
F	M2 J1 to M2 J2 (EB)	AM	4,921	8,415	0.58	5,830	8,484	0.69	908	18%
		IP	4,055	8,485	0.48	5,039	8,604	0.59	985	24%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
	M2 J2 to M2 J1 (WB)	PM	6,081	8,497	0.72	7,367	8,574	0.86	1,286	21%
		AM	4,631	9,115	0.51	6,334	9,180	0.69	1,702	37%
		IP	3,662	9,115	0.40	4,654	9,180	0.51	992	27%
	PM	4,578	9,115	0.50	5,342	9,180	0.58	764	17%	
G	M20 J3 to M20 J4 (EB)	AM	5,019	9,115	0.55	4,411	9,115	0.48	-608	-12%
		IP	4,906	9,115	0.54	4,279	9,115	0.47	-627	-13%
		PM	7,255	9,115	0.80	6,685	9,115	0.73	-570	-8%
	M20 J4 to M20 J3 (WB)	AM	7,805	9,115	0.86	6,881	9,115	0.75	-924	-12%
		IP	4,657	9,115	0.51	3,957	9,115	0.43	-701	-15%
		PM	4,366	9,115	0.48	3,766	9,115	0.41	-600	-14%

DM Vs DS Journey Time Comparisons

- D.3.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.3.9 The link based journey time comparisons for this scenario are presented in Table D30 to Table D32.
- D.3.10 Table D33 to Table D38 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D30 – Link Based Journey Time Scenario Comparison (2031 Low Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.6	80.0	23.5	16.9	83.6	-0.0	-0.8	3.6	-0.1%	-4.4%	+4.5%
	B to D	M25 J29	M25 J2	18.9	16.3	69.3	18.9	12.8	88.4	-0.0	-3.5	19.1	-0.1%	-21.6%	+27.5%
	D to F	M25 J2	M25 J7	37.4	28.4	79.1	37.4	29.9	75.0	0.0	1.6	-4.1	+0.0%	+5.5%	-5.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	25.9	87.7	37.8	25.9	87.5	0.0	0.1	-0.2	+0.0%	+0.2%	-0.2%
	D to B	M25 J2	M25 J29	18.6	20.5	54.6	18.4	14.4	77.0	-0.2	-6.1	22.3	-1.1%	-29.8%	+40.9%
	B to A	M25 J29	M25 J26	23.4	18.3	76.7	23.3	18.6	75.3	-0.0	0.3	-1.4	-0.1%	+1.8%	-1.8%
A13 EB	C to G	M25 J30	A1089	5.0	4.3	69.9	5.2	4.1	75.3	0.2	-0.2	5.3	+3.1%	-4.2%	+7.6%
	G to H	A1089	A130	15.7	11.1	85.0	15.7	11.5	81.8	-0.0	0.4	-3.2	-0.0%	+3.9%	-3.8%
A13 WB	H to G	A130	A1089	15.6	11.7	80.1	15.6	13.6	68.9	0.0	1.9	-11.2	+0.1%	+16.5%	-14.0%
	G to C	A1089	M25 J30	5.3	7.0	45.2	5.6	6.0	56.2	0.3	-1.0	11.0	+5.9%	-14.8%	+24.3%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.6	98.5	14.6	8.4	103.9	0.4	-0.2	5.4	+3.0%	-2.3%	+5.4%
	I to J	M2 J1	M2 J4	14.9	8.4	106.2	14.4	8.3	103.7	-0.5	-0.1	-2.5	-3.3%	-1.0%	-2.3%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.8	103.0	15.0	9.2	98.3	0.0	0.4	-4.7	+0.0%	+4.8%	-4.5%
	I to D	M2 J1	M25 J2	14.7	15.7	56.3	14.8	12.1	73.0	0.1	-3.6	16.7	+0.4%	-22.6%	+29.7%
M20 EB	E to K	M25 J3	M20 J8	35.2	24.8	85.2	35.2	23.8	88.6	0.0	-0.9	3.4	+0.0%	-3.8%	+4.0%
M20 WB	K to E	M20 J8	M25 J3	35.4	22.7	93.6	35.4	21.3	99.6	0.0	-1.4	6.0	+0.0%	-6.0%	+6.4%

Table D31 – Link Based Journey Time Scenario Comparison (2031 Low Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	15.7	90.2	23.5	15.0	94.0	-0.0	-0.7	3.9	-0.1%	-4.3%	+4.3%
	B to D	M25 J29	M25 J2	18.9	12.9	87.8	18.9	12.0	94.3	-0.0	-0.9	6.5	-0.1%	-7.0%	+7.4%
	D to F	M25 J2	M25 J7	37.4	22.7	98.7	37.4	22.8	98.6	0.0	0.0	-0.1	+0.0%	+0.1%	-0.1%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	25.0	90.8	37.8	25.1	90.5	0.0	0.1	-0.2	+0.0%	+0.3%	-0.3%
	D to B	M25 J2	M25 J29	18.6	17.1	65.6	18.4	13.6	81.4	-0.2	-3.5	15.8	-1.1%	-20.2%	+24.0%
	B to A	M25 J29	M25 J26	23.4	15.7	89.2	23.3	15.4	90.8	-0.0	-0.3	1.6	-0.1%	-1.8%	+1.8%
A13 EB	C to G	M25 J30	A1089	5.0	4.4	69.1	5.2	4.3	72.9	0.2	-0.1	3.8	+3.1%	-2.3%	+5.5%
	G to H	A1089	A130	15.7	10.7	88.1	15.7	11.0	86.0	-0.0	0.3	-2.0	-0.0%	+2.3%	-2.3%
A13 WB	H to G	A130	A1089	15.6	10.6	88.3	15.6	11.5	81.6	0.0	0.9	-6.7	+0.1%	+8.4%	-7.6%
	G to C	A1089	M25 J30	5.3	5.1	62.3	5.6	4.9	68.0	0.3	-0.1	5.7	+5.9%	-3.0%	+9.1%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.5	99.7	14.6	8.4	104.5	0.4	-0.2	4.8	+3.0%	-1.8%	+4.8%
	I to J	M2 J1	M2 J4	14.9	8.3	108.1	14.4	8.1	106.9	-0.5	-0.2	-1.2	-3.3%	-2.2%	-1.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.3	108.6	15.0	8.4	107.1	0.0	0.1	-1.5	+0.0%	+1.4%	-1.4%
	I to D	M2 J1	M25 J2	14.7	9.9	89.0	14.8	8.7	101.5	0.1	-1.2	12.4	+0.4%	-11.9%	+14.0%
M20 EB	E to K	M25 J3	M20 J8	35.2	22.4	94.4	35.2	22.1	95.4	0.0	-0.2	0.9	+0.0%	-1.0%	+1.0%
M20 WB	K to E	M20 J8	M25 J3	35.4	19.9	107.0	35.4	19.7	107.9	0.0	-0.2	0.9	+0.0%	-0.8%	+0.8%

Table D32 – Link Based Journey Time Scenario Comparison (2031 Low Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.0	83.1	23.5	16.7	84.6	-0.0	-0.3	1.5	-0.1%	-2.0%	+1.9%
	B to D	M25 J29	M25 J2	18.9	14.2	79.9	18.9	12.3	91.9	-0.0	-1.9	12.0	-0.1%	-13.1%	+15.0%
	D to F	M25 J2	M25 J7	37.4	22.4	100.3	37.4	22.5	99.8	0.0	0.1	-0.5	+0.0%	+0.5%	-0.5%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	28.9	78.7	37.8	29.2	77.7	0.0	0.3	-0.9	+0.0%	+1.2%	-1.2%
	D to B	M25 J2	M25 J29	18.6	21.8	51.4	18.4	14.7	75.2	-0.2	-7.0	23.8	-1.1%	-32.3%	+46.2%
	B to A	M25 J29	M25 J26	23.4	15.3	91.7	23.3	14.9	94.3	-0.0	-0.4	2.6	-0.1%	-2.8%	+2.9%
A13 EB	C to G	M25 J30	A1089	5.0	6.4	47.4	5.2	5.3	59.1	0.2	-1.1	11.7	+3.1%	-17.3%	+24.6%
	G to H	A1089	A130	15.7	11.6	81.0	15.7	13.0	72.3	-0.0	1.4	-8.7	-0.0%	+12.0%	-10.8%
A13 WB	H to G	A130	A1089	15.6	10.7	87.5	15.6	12.1	77.5	0.0	1.4	-10.0	+0.1%	+13.0%	-11.4%
	G to C	A1089	M25 J30	5.3	5.0	63.2	5.6	4.8	70.1	0.3	-0.2	7.0	+5.9%	-4.7%	+11.1%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	13.0	65.6	14.6	9.9	88.9	0.4	-3.1	23.3	+3.0%	-24.0%	+35.6%
	I to J	M2 J1	M2 J4	14.9	9.1	97.8	14.4	10.0	86.1	-0.5	0.9	-11.7	-3.3%	+9.9%	-12.0%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.5	105.8	15.0	8.7	104.0	0.0	0.2	-1.8	+0.0%	+1.8%	-1.7%
	I to D	M2 J1	M25 J2	14.7	11.8	74.9	14.8	9.8	90.3	0.1	-2.0	15.3	+0.4%	-16.7%	+20.5%
M20 EB	E to K	M25 J3	M20 J8	35.2	26.7	79.0	35.2	27.2	77.6	0.0	0.5	-1.4	+0.0%	+1.7%	-1.7%
M20 WB	K to E	M20 J8	M25 J3	35.4	19.9	106.7	35.4	19.7	107.6	0.0	-0.2	0.9	+0.0%	-0.8%	+0.8%

Table D33 – Route Based Journey Time Comparison North to South Movements (2031 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.8	60.0	61.8	58.7	63.2	-0.0	-1.3	1.4	-0.0%	-2.2%	+2.2%	
1 to 6	Cheshunt	Godstone	91.6	81.5	67.5	80.0	68.7	-0.0	-1.5	1.2	-0.0%	-1.8%	+1.8%	
1 to 7	Cheshunt	Southfleet	60.7	56.4	64.6	54.1	67.5	0.1	-2.4	2.9	+0.1%	-4.2%	+4.5%	
1 to 8	Cheshunt	Maidstone	88.1	73.8	71.5	70.1	75.3	-0.0	-3.7	3.8	-0.0%	-5.0%	+5.3%	
1 to 9	Cheshunt	Rochester	76.5	74.8	61.4	68.4	62.1	-5.7	-6.4	0.7	-7.4%	-8.5%	+1.2%	
1 to 10	Cheshunt	Rainham	92.3	77.9	71.1	70.7	74.4	-4.6	-7.2	3.3	-5.0%	-9.3%	+4.7%	
2 to 5	Romford	Bexley	31.7	47.2	40.4	45.7	41.7	0.0	-1.4	1.3	+0.0%	-3.0%	+3.2%	
2 to 6	Romford	Godstone	61.6	68.6	53.9	67.1	55.1	0.0	-1.6	1.3	+0.0%	-2.3%	+2.3%	
2 to 7	Romford	Southfleet	30.7	43.6	42.2	41.1	44.9	0.1	-2.5	2.7	+0.3%	-5.6%	+6.3%	
2 to 8	Romford	Maidstone	58.0	61.0	57.1	57.2	60.9	0.0	-3.8	3.8	+0.0%	-6.2%	+6.7%	
2 to 9	Romford	Rochester	45.3	62.3	43.6	54.0	52.8	2.3	-8.3	9.2	+5.0%	-13.3%	+21.1%	
2 to 10	Romford	Rainham	62.3	65.1	57.4	56.4	67.8	1.5	-8.7	10.4	+2.4%	-13.3%	+18.1%	
3 to 5	Brentwood	Bexley	33.3	36.2	55.3	34.3	58.3	-0.0	-1.9	3.1	-0.0%	-5.3%	+5.6%	
3 to 6	Brentwood	Godstone	63.2	57.7	65.8	55.6	68.2	-0.0	-2.0	2.4	-0.0%	-3.6%	+3.7%	
3 to 7	Brentwood	Southfleet	34.0	35.9	56.7	29.7	65.4	-1.6	-6.3	8.7	-4.8%	-17.5%	+15.4%	
3 to 8	Brentwood	Maidstone	59.6	50.1	71.5	45.8	78.2	-0.0	-4.3	6.7	-0.0%	-8.6%	+9.4%	
3 to 9	Brentwood	Rochester	48.1	51.0	56.5	44.0	57.7	-5.7	-7.0	1.2	-11.8%	-13.6%	+2.1%	
3 to 10	Brentwood	Rainham	63.9	54.1	70.8	46.3	76.8	-4.6	-7.8	5.9	-7.3%	-14.4%	+8.4%	
4 to 5	Basildon	Bexley	36.6	44.8	49.0	41.3	53.2	-0.0	-3.6	4.3	-0.0%	-8.0%	+8.7%	
4 to 6	Basildon	Godstone	66.5	66.3	60.2	62.6	63.7	-0.0	-3.7	3.6	-0.0%	-5.6%	+5.9%	
4 to 7	Basildon	Southfleet	35.5	41.3	51.7	33.4	69.6	-2.1	-12.5	17.9	-6.0%	-30.2%	+34.7%	
4 to 8	Basildon	Maidstone	62.9	58.7	64.3	47.7	59.1	-15.2	-10.3	-5.2	-24.2%	-17.5%	-8.0%	
4 to 9	Basildon	Rochester	51.3	59.6	51.6	42.3	50.5	-15.7	-17.3	-1.1	-30.6%	-29.0%	-2.2%	
4 to 10	Basildon	Rainham	67.2	62.8	64.2	52.5	70.7	-14.7	-18.2	6.4	-21.8%	-28.9%	+10.0%	

Table D34 – Route Based Journey Time Comparison North to South Movements (2031 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.0	49.4	75.3	62.0	48.9	76.1	0.0	-0.5	0.8	+0.1%	-1.0%	+1.1%
1 to 6	Cheshunt	Godstone	91.4	65.4	83.8	91.4	64.8	84.7	0.0	-0.7	0.9	+0.0%	-1.0%	+1.1%
1 to 7	Cheshunt	Southfleet	60.8	48.0	76.0	60.9	47.2	77.3	0.0	-0.8	1.3	+0.1%	-1.7%	+1.7%
1 to 8	Cheshunt	Maidstone	88.1	62.9	84.0	82.6	61.8	80.2	-5.6	-1.2	-3.8	-6.3%	-1.8%	-4.6%
1 to 9	Cheshunt	Rochester	76.4	63.4	72.3	71.1	58.8	72.5	-5.4	-4.6	0.2	-7.0%	-7.2%	+0.3%
1 to 10	Cheshunt	Rainham	91.5	67.7	81.1	86.9	62.5	83.4	-4.6	-5.2	2.3	-5.0%	-7.7%	+2.9%
2 to 5	Romford	Bexley	35.5	39.5	54.0	35.5	38.2	55.8	-0.0	-1.3	1.9	-0.0%	-3.4%	+3.5%
2 to 6	Romford	Godstone	64.9	55.6	70.1	64.9	54.0	72.1	-0.0	-1.5	2.0	-0.0%	-2.7%	+2.8%
2 to 7	Romford	Southfleet	34.4	38.1	54.1	34.4	36.5	56.5	-0.0	-1.6	2.4	-0.0%	-4.3%	+4.5%
2 to 8	Romford	Maidstone	61.6	53.0	69.7	56.0	51.0	65.9	-5.6	-2.0	-3.9	-9.1%	-3.8%	-5.5%
2 to 9	Romford	Rochester	49.9	53.5	56.0	44.5	48.1	55.6	-5.4	-5.4	-0.4	-10.8%	-10.2%	-0.7%
2 to 10	Romford	Rainham	65.0	57.8	67.5	60.4	51.8	70.0	-4.6	-6.1	2.5	-7.1%	-10.5%	+3.7%
3 to 5	Brentwood	Bexley	32.7	30.8	63.7	32.6	29.9	65.5	-0.0	-0.9	1.8	-0.1%	-2.9%	+2.9%
3 to 6	Brentwood	Godstone	62.0	46.8	79.5	62.0	45.8	81.3	-0.0	-1.1	1.8	-0.1%	-2.3%	+2.3%
3 to 7	Brentwood	Southfleet	31.5	29.4	64.2	31.5	28.2	66.8	-0.0	-1.2	2.6	-0.1%	-4.0%	+4.1%
3 to 8	Brentwood	Maidstone	58.8	44.3	79.6	53.2	42.8	74.5	-5.6	-1.5	-5.0	-9.6%	-3.5%	-6.3%
3 to 9	Brentwood	Rochester	47.1	44.8	63.1	42.1	39.6	63.7	-5.0	-5.2	0.6	-10.7%	-11.5%	+1.0%
3 to 10	Brentwood	Rainham	62.2	49.1	76.0	57.5	43.5	79.3	-4.7	-5.6	3.3	-7.5%	-11.4%	+4.4%
4 to 5	Basildon	Bexley	39.3	34.1	69.1	39.3	33.1	71.2	-0.0	-1.0	2.1	-0.1%	-3.0%	+3.0%
4 to 6	Basildon	Godstone	68.7	50.2	82.1	68.7	49.0	84.1	-0.0	-1.2	2.0	-0.1%	-2.4%	+2.4%
4 to 7	Basildon	Southfleet	38.2	32.8	69.9	33.4	25.8	77.5	-4.8	-6.9	7.7	-12.5%	-21.1%	+11.0%
4 to 8	Basildon	Maidstone	65.4	47.7	82.4	47.3	39.9	71.0	-18.1	-7.7	-11.3	-27.7%	-16.2%	-13.7%
4 to 9	Basildon	Rochester	53.8	48.1	67.0	35.8	37.0	58.1	-17.9	-11.2	-8.9	-33.4%	-23.2%	-13.3%
4 to 10	Basildon	Rainham	68.8	52.4	78.7	51.6	40.7	76.2	-17.2	-11.8	-2.6	-25.0%	-22.5%	-3.2%

Table D35 – Route Based Journey Time Comparison North to South Movements (2031 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.2	56.6	66.0	62.3	56.2	66.6	0.1	-0.4	0.6	+0.1%	-0.8%	+0.9%
1 to 6	Cheshunt	Godstone	91.9	72.5	76.1	92.0	71.5	77.2	0.1	-1.0	1.1	+0.1%	-1.3%	+1.4%
1 to 7	Cheshunt	Southfleet	61.0	54.7	66.9	61.1	54.0	67.9	0.1	-0.7	0.9	+0.1%	-1.3%	+1.4%
1 to 8	Cheshunt	Maidstone	88.4	73.9	71.8	82.8	69.0	72.0	-5.5	-4.8	0.2	-6.2%	-6.5%	+0.3%
1 to 9	Cheshunt	Rochester	75.9	78.3	58.1	71.3	70.4	60.8	-4.6	-7.9	2.7	-6.0%	-10.1%	+4.6%
1 to 10	Cheshunt	Rainham	92.6	84.4	65.8	88.1	78.7	67.2	-4.5	-5.8	1.4	-4.9%	-6.8%	+2.1%
2 to 5	Romford	Bexley	38.0	44.3	51.6	35.6	43.3	49.3	-2.5	-1.0	-2.3	-6.6%	-2.2%	-4.5%
2 to 6	Romford	Godstone	67.7	60.2	67.5	65.2	58.7	66.7	-2.5	-1.5	-0.9	-3.7%	-2.4%	-1.3%
2 to 7	Romford	Southfleet	36.8	42.3	52.1	34.3	41.1	50.0	-2.5	-1.2	-2.1	-6.8%	-2.8%	-4.1%
2 to 8	Romford	Maidstone	64.1	61.5	62.6	56.1	56.2	59.9	-8.1	-5.3	-2.7	-12.6%	-8.7%	-4.3%
2 to 9	Romford	Rochester	51.6	66.0	47.0	44.5	57.5	46.4	-7.2	-8.4	-0.6	-13.9%	-12.8%	-1.2%
2 to 10	Romford	Rainham	68.4	72.1	57.0	61.3	65.8	55.9	-7.1	-6.3	-1.1	-10.4%	-8.7%	-1.9%
3 to 5	Brentwood	Bexley	33.5	35.0	57.5	33.5	34.1	59.0	-0.0	-0.9	1.5	-0.0%	-2.6%	+2.6%
3 to 6	Brentwood	Godstone	63.2	50.9	74.5	63.2	49.5	76.6	-0.0	-1.4	2.1	-0.0%	-2.8%	+2.8%
3 to 7	Brentwood	Southfleet	32.3	33.0	58.6	32.2	31.9	60.6	-0.0	-1.1	2.1	-0.0%	-3.4%	+3.5%
3 to 8	Brentwood	Maidstone	59.6	52.2	68.5	54.0	47.0	69.0	-5.6	-5.3	0.5	-9.4%	-10.1%	+0.8%
3 to 9	Brentwood	Rochester	52.5	54.8	57.5	42.4	48.3	52.7	-10.1	-6.4	-4.9	-19.2%	-11.7%	-8.5%
3 to 10	Brentwood	Rainham	63.9	62.8	61.1	59.3	56.6	62.8	-4.6	-6.2	1.8	-7.3%	-9.9%	+2.9%
4 to 5	Basildon	Bexley	36.8	38.9	56.7	36.8	36.8	59.9	-0.0	-2.0	3.1	-0.0%	-5.3%	+5.5%
4 to 6	Basildon	Godstone	66.5	54.8	72.8	66.5	52.2	76.3	-0.0	-2.6	3.6	-0.0%	-4.7%	+4.9%
4 to 7	Basildon	Southfleet	35.5	37.0	57.6	33.4	27.4	73.1	-2.1	-9.6	15.5	-5.9%	-25.9%	+26.9%
4 to 8	Basildon	Maidstone	62.9	56.1	67.2	47.3	42.5	66.7	-15.6	-13.6	-0.5	-24.8%	-24.3%	-0.7%
4 to 9	Basildon	Rochester	50.4	60.6	49.9	35.7	43.9	48.9	-14.7	-16.7	-1.0	-29.1%	-27.6%	-2.0%
4 to 10	Basildon	Rainham	67.2	66.7	60.4	52.5	52.1	60.4	-14.6	-14.6	0.1	-21.8%	-21.9%	+0.1%

Table D36 – Route Based Journey Time Comparison South to North Movements (2031 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	54.9	67.3	61.6	53.0	69.7	-0.0	-2.0	2.4	-0.1%	-3.6%	+3.6%
5 to 2	Bexley	Romford	33.4	42.4	47.3	33.4	39.2	51.2	0.0	-3.3	3.9	+0.0%	-7.7%	+8.3%
5 to 3	Bexley	Brentwood	34.4	40.9	50.5	34.3	36.1	56.9	-0.2	-4.7	6.4	-0.5%	-11.6%	+12.6%
5 to 4	Bexley	Basildon	36.5	37.4	58.6	36.5	33.8	64.7	-0.0	-3.5	6.1	-0.0%	-9.5%	+10.4%
6 to 1	Godstone	Cheshunt	91.2	74.5	73.5	91.2	72.3	75.7	-0.0	-2.2	2.2	-0.0%	-2.9%	+3.0%
6 to 2	Godstone	Romford	63.0	61.9	61.0	63.0	58.5	64.7	0.0	-3.5	3.6	+0.0%	-5.6%	+6.0%
6 to 3	Godstone	Brentwood	64.0	60.4	63.6	63.9	55.4	69.1	-0.2	-5.0	5.5	-0.3%	-8.2%	+8.7%
6 to 4	Godstone	Basildon	66.1	56.9	69.7	66.1	53.1	74.6	-0.0	-3.8	4.9	-0.0%	-6.6%	+7.1%
7 to 1	Southfleet	Cheshunt	60.7	54.8	66.5	60.6	51.2	71.1	-0.0	-3.6	4.6	-0.1%	-6.6%	+6.9%
7 to 2	Southfleet	Romford	32.5	42.3	46.1	32.5	37.4	52.1	-0.0	-4.9	6.0	-0.0%	-11.6%	+13.1%
7 to 3	Southfleet	Brentwood	33.5	40.7	49.4	33.3	34.3	58.2	-0.2	-6.4	8.8	-0.6%	-15.6%	+17.9%
7 to 4	Southfleet	Basildon	35.5	37.2	57.3	35.5	27.0	78.9	-0.1	-10.2	21.6	-0.2%	-27.5%	+37.7%
8 to 1	Maidstone	Cheshunt	88.1	75.8	69.8	88.0	71.6	73.7	-0.1	-4.2	4.0	-0.1%	-5.5%	+5.7%
8 to 2	Maidstone	Romford	59.9	63.3	56.8	60.0	57.8	62.3	0.0	-5.5	5.4	+0.0%	-8.7%	+9.6%
8 to 3	Maidstone	Brentwood	61.0	61.7	59.3	55.1	56.0	59.1	-5.9	-5.8	-0.2	-9.6%	-9.3%	-0.3%
8 to 4	Maidstone	Basildon	63.0	58.2	64.9	50.7	47.2	64.5	-12.4	-11.1	-0.5	-19.6%	-19.0%	-0.7%
9 to 1	Rochester	Cheshunt	77.0	79.1	58.4	73.0	66.6	65.8	-4.0	-12.5	7.4	-5.2%	-15.8%	+12.6%
9 to 2	Rochester	Romford	48.8	66.6	44.0	46.9	53.0	53.1	-1.9	-13.6	9.1	-4.0%	-20.5%	+20.8%
9 to 3	Rochester	Brentwood	49.9	65.1	46.0	44.2	49.2	54.0	-5.6	-15.9	8.0	-11.3%	-24.4%	+17.5%
9 to 4	Rochester	Basildon	51.9	61.6	50.6	39.8	40.3	59.2	-12.1	-21.2	8.6	-23.3%	-34.5%	+17.0%
10 to 1	Rainham	Cheshunt	92.6	85.5	65.0	88.5	72.8	72.9	-4.0	-12.6	7.9	-4.3%	-14.8%	+12.2%
10 to 2	Rainham	Romford	64.4	72.9	52.9	62.3	59.5	62.8	-2.1	-13.4	9.9	-3.2%	-18.4%	+18.6%
10 to 3	Rainham	Brentwood	65.4	71.4	54.9	59.8	55.4	64.8	-5.6	-16.0	9.8	-8.5%	-22.4%	+17.9%
10 to 4	Rainham	Basildon	67.4	67.9	59.6	55.3	46.6	71.3	-12.1	-21.3	11.7	-17.9%	-31.4%	+19.6%

Table D37 – Route Based Journey Time Comparison South to North Movements (2031 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	50.3	73.4	61.5	48.5	76.1	-0.0	-1.8	2.7	-0.1%	-3.6%	+3.7%
5 to 2	Bexley	Romford	35.7	36.6	58.5	35.5	34.7	61.4	-0.2	-1.9	2.9	-0.5%	-5.3%	+5.0%
5 to 3	Bexley	Brentwood	32.3	33.9	57.1	32.1	31.0	62.1	-0.2	-2.9	5.0	-0.6%	-8.7%	+8.8%
5 to 4	Bexley	Basildon	36.5	35.2	62.1	36.5	31.9	68.6	-0.0	-3.3	6.4	-0.0%	-9.4%	+10.4%
6 to 1	Godstone	Cheshunt	91.5	69.6	78.9	91.4	67.8	80.9	-0.0	-1.8	2.0	-0.0%	-2.5%	+2.5%
6 to 2	Godstone	Romford	65.6	56.0	70.3	65.4	54.1	72.5	-0.2	-1.9	2.2	-0.3%	-3.3%	+3.1%
6 to 3	Godstone	Brentwood	62.2	53.3	70.0	62.0	50.4	73.7	-0.2	-2.9	3.7	-0.3%	-5.4%	+5.3%
6 to 4	Godstone	Basildon	66.4	54.6	72.9	66.4	51.4	77.5	-0.0	-3.2	4.6	-0.0%	-5.9%	+6.3%
7 to 1	Southfleet	Cheshunt	60.7	49.5	73.5	60.6	47.4	76.7	-0.0	-2.1	3.2	-0.1%	-4.2%	+4.3%
7 to 2	Southfleet	Romford	34.7	35.9	58.1	34.6	33.7	61.6	-0.2	-2.2	3.4	-0.5%	-6.1%	+5.9%
7 to 3	Southfleet	Brentwood	31.3	33.2	56.6	31.1	30.0	62.3	-0.2	-3.2	5.6	-0.6%	-9.6%	+9.9%
7 to 4	Southfleet	Basildon	35.5	34.5	61.8	35.5	26.4	80.5	-0.1	-8.1	18.7	-0.2%	-23.4%	+30.2%
8 to 1	Maidstone	Cheshunt	88.1	69.8	75.7	83.8	67.4	74.6	-4.3	-2.4	-1.1	-4.9%	-3.5%	-1.4%
8 to 2	Maidstone	Romford	62.2	56.2	66.5	57.8	53.5	64.8	-4.4	-2.6	-1.7	-7.1%	-4.7%	-2.6%
8 to 3	Maidstone	Brentwood	58.8	53.5	66.0	55.0	48.1	68.5	-3.8	-5.4	2.6	-6.5%	-10.0%	+3.9%
8 to 4	Maidstone	Basildon	63.0	54.8	69.0	50.7	43.8	69.4	-12.4	-11.0	0.4	-19.6%	-20.1%	+0.6%
9 to 1	Rochester	Cheshunt	76.9	68.1	67.8	72.9	60.8	71.9	-4.0	-7.3	4.1	-5.2%	-10.7%	+6.1%
9 to 2	Rochester	Romford	51.1	54.4	56.3	46.9	46.9	59.9	-4.2	-7.5	3.6	-8.2%	-13.7%	+6.5%
9 to 3	Rochester	Brentwood	47.7	51.8	55.3	44.1	41.5	63.7	-3.6	-10.2	8.4	-7.5%	-19.7%	+15.2%
9 to 4	Rochester	Basildon	51.9	53.1	58.7	39.8	37.2	64.2	-12.1	-15.9	5.5	-23.3%	-29.9%	+9.4%
10 to 1	Rainham	Cheshunt	91.6	71.5	76.9	87.6	64.2	81.9	-4.0	-7.3	5.0	-4.4%	-10.2%	+6.5%
10 to 2	Rainham	Romford	65.8	57.9	68.2	61.6	50.3	73.4	-4.2	-7.5	5.2	-6.3%	-13.0%	+7.7%
10 to 3	Rainham	Brentwood	62.4	55.2	67.8	58.8	44.9	78.5	-3.6	-10.3	10.7	-5.7%	-18.6%	+15.8%
10 to 4	Rainham	Basildon	66.6	56.5	70.7	54.5	40.6	80.6	-12.1	-15.9	9.9	-18.2%	-28.2%	+13.9%

Table D38 – Route Based Journey Time Comparison South to North Movements (2031 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	53.4	69.1	61.4	51.9	71.1	-0.1	-1.5	2.0	-0.1%	-2.8%	+2.8%
5 to 2	Bexley	Romford	37.1	39.8	56.0	37.1	37.8	58.8	-0.0	-2.0	2.8	-0.1%	-4.9%	+5.1%
5 to 3	Bexley	Brentwood	32.4	40.9	47.5	34.3	35.3	58.2	1.8	-5.6	10.7	+5.6%	-13.7%	+22.4%
5 to 4	Bexley	Basildon	36.5	42.2	51.8	36.5	39.1	56.0	-0.0	-3.1	4.1	-0.0%	-7.4%	+8.0%
6 to 1	Godstone	Cheshunt	91.2	73.3	74.6	91.2	71.8	76.1	-0.0	-1.5	1.5	-0.0%	-2.0%	+2.0%
6 to 2	Godstone	Romford	66.7	59.8	67.0	66.7	57.9	69.1	-0.0	-1.9	2.2	-0.1%	-3.2%	+3.2%
6 to 3	Godstone	Brentwood	62.0	60.9	61.1	63.9	55.4	69.2	1.8	-5.6	8.1	+3.0%	-9.1%	+13.3%
6 to 4	Godstone	Basildon	66.1	62.2	63.7	66.1	59.2	67.0	-0.0	-3.1	3.3	-0.0%	-4.9%	+5.2%
7 to 1	Southfleet	Cheshunt	60.7	51.7	70.4	60.6	49.3	73.8	-0.0	-2.4	3.4	-0.1%	-4.6%	+4.8%
7 to 2	Southfleet	Romford	36.3	38.2	57.0	36.3	35.3	61.6	-0.0	-2.8	4.6	-0.0%	-7.4%	+8.0%
7 to 3	Southfleet	Brentwood	31.5	39.3	48.1	33.3	32.8	60.9	1.8	-6.5	12.8	+5.8%	-16.4%	+26.6%
7 to 4	Southfleet	Basildon	35.5	40.6	52.5	35.5	30.7	69.2	-0.1	-9.9	16.7	-0.2%	-24.3%	+31.8%
8 to 1	Maidstone	Cheshunt	88.1	68.8	76.9	88.1	66.5	79.5	-0.0	-2.4	2.7	-0.1%	-3.4%	+3.5%
8 to 2	Maidstone	Romford	63.7	55.3	69.1	63.6	52.5	72.7	-0.0	-2.8	3.6	-0.1%	-5.0%	+5.2%
8 to 3	Maidstone	Brentwood	59.0	56.4	62.7	60.8	50.0	73.0	1.8	-6.4	10.3	+3.1%	-11.4%	+16.4%
8 to 4	Maidstone	Basildon	63.0	57.7	65.5	51.8	49.3	63.0	-11.3	-8.4	-2.5	-17.9%	-14.6%	-3.8%
9 to 1	Rochester	Cheshunt	76.0	78.3	58.2	71.3	69.4	61.6	-4.7	-8.9	3.4	-6.2%	-11.3%	+5.8%
9 to 2	Rochester	Romford	51.6	64.7	47.9	48.0	55.2	52.2	-3.6	-9.5	4.3	-7.0%	-14.7%	+9.0%
9 to 3	Rochester	Brentwood	46.9	65.8	42.8	42.7	51.1	50.1	-4.3	-14.7	7.3	-9.1%	-22.4%	+17.1%
9 to 4	Rochester	Basildon	51.0	67.1	45.6	38.2	48.0	47.8	-12.8	-19.2	2.2	-25.1%	-28.5%	+4.9%
10 to 1	Rainham	Cheshunt	92.6	76.7	72.4	88.5	67.3	79.0	-4.0	-9.5	6.6	-4.3%	-12.3%	+9.1%
10 to 2	Rainham	Romford	68.1	63.2	64.7	64.1	53.3	72.1	-4.0	-9.9	7.5	-5.9%	-15.6%	+11.6%
10 to 3	Rainham	Brentwood	63.4	64.3	59.1	59.8	49.0	73.2	-3.6	-15.3	14.0	-5.6%	-23.8%	+23.7%
10 to 4	Rainham	Basildon	67.4	65.6	61.7	55.3	45.9	72.3	-12.1	-19.7	10.7	-17.9%	-30.0%	+17.3%

D.4 LTAM 2041 Low Growth – Outputs to Economic Assessment

D.4.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2041 low growth forecast.

Matrix Total Comparison

D.4.2 Table D39 and Table D40 provide a comparison of the VDM output core scenario matrices and the 2041 low growth matrices for all movements and relevant movements respectively.

Table D39 – Matrix Total Comparison – 2041 Low Growth All Movements (PCU's)

Userclass	Time Period	All Movements								
		Core Scenario VDM Output Matrix (2041 DM)	Low Growth Scenario (2041 DM)				Core Scenario VDM Output Matrix (2041 DS)	Low Growth Scenario (2041 DS)		
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core
Car Employers Business	AM	518,622	462,779	-55,844	-10.8%	518,739	462,895	-55,844	-10.8%	
	IP	451,372	402,800	-48,573	-10.8%	451,366	402,793	-48,573	-10.8%	
	PM	619,281	552,490	-66,791	-10.8%	619,319	552,528	-66,791	-10.8%	
	OP	182,544	162,976	-19,568	-10.7%	182,520	162,952	-19,568	-10.7%	
Car Commute Low Income	AM	469,869	417,830	-52,039	-11.1%	469,848	417,809	-52,039	-11.1%	
	IP	215,421	191,793	-23,628	-11.0%	215,439	191,812	-23,628	-11.0%	
	PM	540,704	481,222	-59,482	-11.0%	540,722	481,239	-59,482	-11.0%	
	OP	86,819	77,296	-9,523	-11.0%	86,818	77,295	-9,523	-11.0%	
Car Commute Medium Income	AM	953,896	848,445	-105,451	-11.1%	954,020	848,568	-105,452	-11.1%	
	IP	331,180	294,843	-36,337	-11.0%	331,171	294,835	-36,337	-11.0%	
	PM	1,039,752	925,480	-114,272	-11.0%	1,039,798	925,526	-114,272	-11.0%	
	OP	133,474	118,826	-14,648	-11.0%	133,459	118,811	-14,648	-11.0%	
Car Commute High Income	AM	812,728	722,914	-89,813	-11.1%	812,641	722,828	-89,813	-11.1%	
	IP	235,267	209,360	-25,907	-11.0%	235,285	209,379	-25,907	-11.0%	
	PM	839,809	747,288	-92,521	-11.0%	839,980	747,460	-92,521	-11.0%	
	OP	94,810	84,374	-10,436	-11.0%	94,804	84,368	-10,436	-11.0%	
Car Other Low Income	AM	790,899	709,927	-80,972	-10.2%	791,311	710,336	-80,975	-10.2%	
	IP	1,401,362	1,257,414	-143,948	-10.3%	1,401,422	1,257,471	-143,951	-10.3%	
	PM	1,362,848	1,222,531	-140,317	-10.3%	1,362,976	1,222,655	-140,320	-10.3%	
	OP	567,226	509,190	-58,037	-10.2%	567,112	509,075	-58,038	-10.2%	
Car Other Medium Income	AM	853,752	767,043	-86,710	-10.2%	853,995	767,285	-86,710	-10.2%	
	IP	1,136,476	1,021,178	-115,299	-10.1%	1,136,583	1,021,284	-115,299	-10.1%	
	PM	1,393,300	1,251,633	-141,667	-10.2%	1,393,318	1,251,651	-141,667	-10.2%	
	OP	460,515	414,061	-46,455	-10.1%	460,434	413,979	-46,455	-10.1%	
Car Other High Income	AM	685,036	615,619	-69,417	-10.1%	685,239	615,822	-69,417	-10.1%	
	IP	766,206	688,772	-77,434	-10.1%	766,224	688,790	-77,435	-10.1%	
	PM	1,059,712	952,407	-107,305	-10.1%	1,059,918	952,613	-107,305	-10.1%	
	OP	311,139	279,956	-31,183	-10.0%	311,061	279,878	-31,183	-10.0%	
Car Total	AM	5,084,802	4,544,557	-540,246	-10.6%	5,085,792	4,545,542	-540,250	-10.6%	
	IP	4,537,284	4,066,159	-471,125	-10.4%	4,537,491	4,066,362	-471,129	-10.4%	
	PM	6,855,405	6,133,051	-722,354	-10.5%	6,856,030	6,133,671	-722,359	-10.5%	
	OP	1,836,527	1,646,677	-189,850	-10.3%	1,836,209	1,646,358	-189,851	-10.3%	
LGV	AM	1,217,634	1,126,604	-91,030	-7.5%	1,217,634	1,126,604	-91,030	-7.5%	
	IP	1,050,371	971,958	-78,413	-7.5%	1,050,371	971,958	-78,413	-7.5%	
	PM	878,550	812,937	-65,613	-7.5%	878,550	812,937	-65,613	-7.5%	
	OP	421,851	390,229	-31,622	-7.5%	421,851	390,229	-31,622	-7.5%	
HGV	AM	461,489	414,648	-46,841	-10.1%	461,489	414,648	-46,841	-10.1%	
	IP	458,881	412,302	-46,579	-10.2%	458,881	412,302	-46,579	-10.2%	
	PM	288,966	259,646	-29,320	-10.1%	288,966	259,646	-29,320	-10.1%	
	OP	183,109	164,398	-18,711	-10.2%	183,109	164,398	-18,711	-10.2%	

Table D40 – Matrix Total Comparison – 2041 Low Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2041 DM)	Low Growth Scenario (2041 DM)			Core Scenario VDM Output Matrix (2041 DS)	Low Growth Scenario (2041 DS)		
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	42,239	37,615	-4,624	-10.9%	42,368	37,744	-4,624	-10.9%
	IP	29,699	26,532	-3,167	-10.7%	29,710	26,543	-3,167	-10.7%
	PM	42,071	37,513	-4,558	-10.8%	42,127	37,569	-4,558	-10.8%
	OP	12,128	10,876	-1,252	-10.3%	12,108	10,856	-1,252	-10.3%
Car Commute Low Income	AM	33,269	29,544	-3,725	-11.2%	33,244	29,519	-3,725	-11.2%
	IP	18,784	16,724	-2,060	-11.0%	18,803	16,743	-2,060	-11.0%
	PM	35,241	31,346	-3,895	-11.1%	35,258	31,363	-3,895	-11.0%
	OP	7,428	6,609	-819	-11.0%	7,427	6,608	-819	-11.0%
Car Commute Medium Income	AM	70,753	62,692	-8,061	-11.4%	70,870	62,810	-8,061	-11.4%
	IP	28,693	25,549	-3,143	-11.0%	28,685	25,542	-3,143	-11.0%
	PM	69,494	61,689	-7,805	-11.2%	69,539	61,734	-7,805	-11.2%
	OP	11,417	10,161	-1,256	-11.0%	11,403	10,147	-1,256	-11.0%
Car Commute High Income	AM	67,828	60,129	-7,698	-11.4%	67,735	60,037	-7,699	-11.4%
	IP	24,448	21,765	-2,683	-11.0%	24,469	21,786	-2,683	-11.0%
	PM	67,843	60,229	-7,614	-11.2%	68,016	60,402	-7,614	-11.2%
	OP	9,806	8,734	-1,071	-10.9%	9,800	8,729	-1,071	-10.9%
Car Other Low Income	AM	77,827	69,712	-8,115	-10.4%	78,251	70,135	-8,116	-10.4%
	IP	109,256	98,019	-11,238	-10.3%	109,342	98,103	-11,238	-10.3%
	PM	113,392	101,478	-11,915	-10.5%	113,541	101,626	-11,915	-10.5%
	OP	45,600	41,130	-4,470	-9.8%	45,517	41,046	-4,470	-9.8%
Car Other Medium Income	AM	88,455	79,407	-9,048	-10.2%	88,713	79,665	-9,048	-10.2%
	IP	105,983	95,443	-10,539	-9.9%	106,146	95,607	-10,539	-9.9%
	PM	131,752	118,373	-13,379	-10.2%	131,809	118,430	-13,379	-10.2%
	OP	44,322	40,133	-4,189	-9.5%	44,262	40,073	-4,189	-9.5%
Car Other High Income	AM	84,550	75,961	-8,589	-10.2%	84,780	76,191	-8,589	-10.1%
	IP	87,476	78,865	-8,611	-9.8%	87,553	78,943	-8,611	-9.8%
	PM	119,668	107,674	-11,994	-10.0%	119,930	107,936	-11,994	-10.0%
	OP	36,958	33,526	-3,432	-9.3%	36,892	33,460	-3,432	-9.3%
Car Total	AM	464,920	415,061	-49,859	-10.7%	465,961	416,100	-49,860	-10.7%
	IP	404,338	362,897	-41,441	-10.2%	404,708	363,266	-41,442	-10.2%
	PM	579,460	518,301	-61,159	-10.6%	580,219	519,059	-61,160	-10.5%
	OP	167,658	151,168	-16,491	-9.8%	167,410	150,919	-16,491	-9.9%
LGV	AM	145,490	134,776	-10,714	-7.4%	145,490	134,776	-10,714	-7.4%
	IP	110,049	102,070	-7,978	-7.2%	110,049	102,070	-7,978	-7.2%
	PM	113,424	105,117	-8,307	-7.3%	113,424	105,117	-8,307	-7.3%
	OP	42,472	39,272	-3,200	-7.5%	42,472	39,272	-3,200	-7.5%
HGV	AM	70,396	63,571	-6,826	-9.7%	70,396	63,571	-6,826	-9.7%
	IP	72,543	65,541	-7,002	-9.7%	72,543	65,541	-7,002	-9.7%
	PM	43,876	39,636	-4,241	-9.7%	43,876	39,636	-4,241	-9.7%
	OP	27,585	24,829	-2,757	-10.0%	27,585	24,829	-2,757	-10.0%

Highway Assignment Model (HAM) Convergence Statistics

D.4.3 Table D41 to Table D43 provide the highway assignment model convergence statistics for the 2041 low growth DM forecasts. Table D44 to Table D46 provide the highway assignment model convergence statistics for the 2041 low growth DS forecasts.

Table D41 – HAM Convergence Statistics – 2041 Low Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
43	0.0064	0.0089	97.8	99.0
44	0.0072	0.011	98.0	99.1
45	0.0079	0.0084	97.6	99.0
46	0.0067	0.010	98.0	99.1

Table D42 – HAM Convergence Statistics – 2041 Low Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
49	0.0070	0.013	98.1	99.3
50	0.0154	0.0066	97.6	99.3
51	0.0053	0.012	98.3	99.3
52	0.0165	0.0074	97.9	99.2

Table D43 – HAM Convergence Statistics – 2041 Low Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
89	0.0043	0.013	98.1	99.0
90	0.0113	0.0080	97.6	98.9
91	0.0043	0.0095	98.4	99.1
92	0.0055	0.013	97.9	98.9

Table D44 – HAM Convergence Statistics – 2041 Low Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
63	0.0065	0.0089	98.5	99.2
64	0.0076	0.0073	98.2	99.1
65	0.0057	0.012	98.4	99.1
66	0.0075	0.0066	98.0	99.1

Table D45 – HAM Convergence Statistics – 2041 Low Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
68	0.0051	0.012	98.3	99.4
69	0.0134	0.0062	97.5	99.1
70	0.0052	0.012	98.3	99.3
71	0.0176	0.0059	97.7	99.2

Table D46 – HAM Convergence Statistics – 2041 Low Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
52	0.0056	0.0084	97.9	99.1
53	0.0055	0.0085	97.6	98.9
54	0.0047	0.0063	97.9	99.1
55	0.0046	0.0087	98.2	99.2

D.4.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

D.4.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D7 to Figure D9 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.

D.4.6 Table D47 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D7 – Actual Flow Comparison Plot – 2041 Low Growth DM Vs DS AM Peak



Figure D8 – Actual Flow Comparison Plot – 2041 Low Growth DM Vs DS Inter Peak



Figure D9 – Actual Flow Comparison Plot – 2041 Low Growth DM Vs DS PM Peak



Table D47 – Cross River Traffic Flows – 2041 Low Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	2,944	2,904	-40	-1%	2,183	2,017	-166	-8%	3,373	2,375	-998	-30%	8,500	7,296	-1,204	-14%
		IP	3,026	2,493	-533	-18%	1,042	813	-229	-22%	3,237	2,020	-1,217	-38%	7,305	5,326	-1,979	-27%
		PM	4,433	3,855	-578	-13%	1,425	1,081	-344	-24%	2,283	1,288	-994	-44%	8,141	6,225	-1,916	-24%
LTC		AM	0	2,266			0	422			0	1,367			0	4,055		
		IP	0	1,868			0	262			0	1,306			0	3,435		
		PM	0	3,334			0	397			0	1,070			0	4,801		
	Total	AM	2,944	5,170	2,226	76%	2,183	2,439	256	12%	3,373	3,742	369	11%	8,500	11,351	2,851	34%
		IP	3,026	4,361	1,335	44%	1,042	1,075	33	3%	3,237	3,325	88	3%	7,305	8,761	1,456	20%
		PM	4,433	7,189	2,756	62%	1,425	1,479	54	4%	2,283	2,359	76	3%	8,141	11,026	2,886	35%
NB	Dartford	AM	3,482	3,256	-227	-7%	1,765	1,326	-438	-25%	2,290	1,367	-923	-40%	7,537	5,949	-1,588	-21%
		IP	2,818	2,645	-173	-6%	1,220	998	-221	-18%	3,077	1,819	-1,258	-41%	7,115	5,462	-1,653	-23%
		PM	3,680	3,661	-19	-1%	1,296	1,061	-235	-18%	2,177	1,367	-810	-37%	7,153	6,089	-1,064	-15%
LTC		AM	0	2,779			0	581			0	1,112			0	4,472		
		IP	0	1,538			0	282			0	1,360			0	3,180		
		PM	0	1,761			0	284			0	828			0	2,873		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,482	6,034	2,552	73%	1,765	1,907	142	8%	2,290	2,479	189	8%	7,537	10,421	2,884	38%
		IP	2,818	4,182	1,364	48%	1,220	1,281	61	5%	3,077	3,178	101	3%	7,115	8,642	1,527	21%
		PM	3,680	5,423	1,742	47%	1,296	1,345	49	4%	2,177	2,195	18	1%	7,153	8,963	1,809	25%

D.4.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D48 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

Table D48 – Key Corridor Traffic Flows – 2041 Low Growth DM Vs DS (Hourly Flows in PCU's)

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,512	9,180	0.82	8,542	9,180	0.93	1,030	14%
		IP	7,187	9,180	0.78	7,650	9,180	0.83	463	6%
		PM	6,915	9,180	0.75	7,522	9,180	0.82	608	9%
	M25 J28 to M25 J29 (SB)	AM	7,558	9,115	0.83	7,752	9,180	0.84	194	3%
		IP	7,030	9,115	0.77	7,255	9,180	0.79	225	3%
		PM	7,518	9,115	0.82	7,791	9,180	0.85	273	4%
B	M25 J4 to M25 J3 (NB)	AM	5,469	6,850	0.80	5,706	6,850	0.83	237	4%
		IP	5,354	6,850	0.78	5,537	6,850	0.81	183	3%
		PM	5,856	6,850	0.85	6,041	6,850	0.88	185	3%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	5,250	6,850	0.77	5,390	6,850	0.79	140	3%
		PM	5,249	6,850	0.77	5,508	6,850	0.80	259	5%
C	A13 A126 to A1012 (EB)	AM	4,946	6,306	0.78	4,133	6,288	0.66	-813	-16%
		IP	4,861	6,286	0.77	4,466	6,276	0.71	-394	-8%
		PM	5,648	6,279	0.90	5,560	6,251	0.89	-88	-2%
	A13 A1012 to A126 (WB)	AM	6,103	6,360	0.96	5,437	6,360	0.85	-666	-11%
		IP	5,462	6,360	0.86	4,553	6,360	0.72	-909	-17%
		PM	5,330	6,360	0.84	4,305	6,360	0.68	-1,025	-19%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,485	6,370	0.70	5,053	6,370	0.79	568	13%
		IP	3,836	6,370	0.60	4,395	6,370	0.69	560	15%
		PM	4,926	6,370	0.77	5,571	6,370	0.87	645	13%
	A13 Manor Way to Orsett Cock (WB)	AM	4,535	6,220	0.73	5,739	6,220	0.92	1,204	27%
		IP	4,057	6,220	0.65	5,138	6,220	0.83	1,080	27%
		PM	4,277	6,220	0.69	5,652	6,220	0.91	1,374	32%
E	A2 A227 to Gravesend East (EB)	AM	6,323	9,214	0.69	5,173	9,197	0.56	-1,150	-18%
		IP	6,327	9,179	0.69	5,143	9,157	0.56	-1,184	-19%
		PM	8,575	9,178	0.93	7,621	9,153	0.83	-955	-11%
	A2 Gravesend East to A227 (WB)	AM	6,754	7,766	0.87	5,988	7,613	0.79	-766	-11%
		IP	6,004	7,651	0.78	5,062	7,462	0.68	-942	-16%
		PM	6,477	7,484	0.87	6,030	7,343	0.82	-447	-7%
F	M2 J1 to M2 J2 (EB)	AM	5,251	8,458	0.62	6,214	8,481	0.73	963	18%
		IP	4,428	8,519	0.52	5,430	8,572	0.63	1,001	23%

Location	Location Description	Time Period	DM			DS			Flow Differences		
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %	
	M2 J2 to M2 J1 (WB)	PM	6,252	8,528	0.73	7,518	8,569	0.88	1,266	20%	
		AM	4,891	9,115	0.54	6,708	9,180	0.73	1,818	37%	
		IP	3,925	9,115	0.43	5,073	9,180	0.55	1,149	29%	
	G	M20 J3 to M20 J4 (EB)	PM	4,850	9,115	0.53	5,678	9,180	0.62	829	17%
			AM	5,377	9,115	0.59	4,827	9,115	0.53	-550	-10%
			IP	5,358	9,115	0.59	4,728	9,115	0.52	-630	-12%
M20 J4 to M20 J3 (WB)		PM	7,579	9,115	0.83	7,102	9,115	0.78	-477	-6%	
		AM	8,174	9,115	0.90	7,223	9,115	0.79	-951	-12%	
		IP	5,196	9,115	0.57	4,404	9,115	0.48	-792	-15%	
		PM	4,727	9,115	0.52	4,109	9,115	0.45	-619	-13%	

DM Vs DS Journey Time Comparisons

- D.4.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.4.9 The link based journey time comparisons for this scenario are presented in Table D49 to Table D51.
- D.4.10 Table D52 to Table D57 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D49 – Link Based Journey Time Scenario Comparison (2041 Low Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	18.5	76.2	23.5	17.8	79.1	-0.0	-0.7	3.0	-0.1%	-3.9%	+3.9%
	B to D	M25 J29	M25 J2	18.9	17.7	64.2	18.9	13.3	84.9	-0.0	-4.3	20.7	-0.1%	-24.5%	+32.3%
	D to F	M25 J2	M25 J7	37.4	30.8	72.8	37.4	33.1	67.8	0.0	2.2	-4.9	+0.0%	+7.2%	-6.8%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	27.3	83.3	37.8	27.3	83.2	0.0	0.0	-0.1	+0.0%	+0.1%	-0.1%
	D to B	M25 J2	M25 J29	18.6	22.0	50.9	18.4	15.0	73.9	-0.2	-7.0	23.0	-1.1%	-31.9%	+45.2%
	B to A	M25 J29	M25 J26	23.4	19.1	73.6	23.3	19.8	70.7	-0.0	0.8	-2.8	-0.1%	+3.9%	-3.8%
A13 EB	C to G	M25 J30	A1089	5.0	4.5	67.6	5.2	4.2	73.5	0.2	-0.2	5.9	+3.1%	-5.2%	+8.7%
	G to H	A1089	A130	15.7	11.4	82.4	15.7	12.7	74.4	-0.0	1.2	-8.1	-0.0%	+10.8%	-9.8%
A13 WB	H to G	A130	A1089	15.6	12.0	77.9	15.6	14.5	64.6	0.0	2.5	-13.2	+0.1%	+20.6%	-17.0%
	G to C	A1089	M25 J30	5.3	7.2	43.8	5.6	6.2	53.8	0.3	-1.0	10.0	+5.9%	-13.9%	+22.9%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.8	97.0	14.6	8.5	102.6	0.4	-0.2	5.6	+3.0%	-2.7%	+5.8%
	I to J	M2 J1	M2 J4	14.9	8.6	104.5	14.4	8.5	101.7	-0.5	-0.1	-2.8	-3.3%	-0.6%	-2.7%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.9	101.8	15.0	9.4	96.6	0.0	0.5	-5.3	+0.0%	+5.5%	-5.2%
	I to D	M2 J1	M25 J2	14.7	16.6	53.1	14.8	12.5	71.1	0.1	-4.2	18.0	+0.4%	-25.1%	+33.9%
M20 EB	E to K	M25 J3	M20 J8	35.2	25.1	84.3	35.2	24.1	87.5	0.0	-0.9	3.3	+0.0%	-3.7%	+3.9%
M20 WB	K to E	M20 J8	M25 J3	35.4	23.6	89.9	35.4	22.1	96.1	0.0	-1.5	6.2	+0.0%	-6.5%	+6.9%

Table D50 – Link Based Journey Time Scenario Comparison (2041 Low Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.4	86.1	23.5	15.7	89.6	-0.0	-0.7	3.5	-0.1%	-4.1%	+4.1%
	B to D	M25 J29	M25 J2	18.9	13.5	83.9	18.9	12.2	92.8	-0.0	-1.3	8.9	-0.1%	-9.6%	+10.6%
	D to F	M25 J2	M25 J7	37.4	23.7	94.7	37.4	23.8	94.2	0.0	0.1	-0.5	+0.0%	+0.6%	-0.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	26.5	85.8	37.8	26.7	85.2	0.0	0.2	-0.6	+0.0%	+0.7%	-0.7%
	D to B	M25 J2	M25 J29	18.6	18.9	59.1	18.4	14.1	78.8	-0.2	-4.9	19.7	-1.1%	-25.8%	+33.3%
	B to A	M25 J29	M25 J26	23.4	16.5	85.0	23.3	16.6	84.6	-0.0	0.1	-0.4	-0.1%	+0.4%	-0.5%
A13 EB	C to G	M25 J30	A1089	5.0	4.6	66.1	5.2	4.4	70.4	0.2	-0.1	4.3	+3.1%	-3.3%	+6.6%
	G to H	A1089	A130	15.7	10.8	87.0	15.7	11.3	83.5	-0.0	0.4	-3.5	-0.0%	+4.2%	-4.0%
A13 WB	H to G	A130	A1089	15.6	10.7	87.1	15.6	11.9	78.4	0.0	1.2	-8.7	+0.1%	+11.2%	-10.0%
	G to C	A1089	M25 J30	5.3	5.4	58.1	5.6	5.2	64.7	0.3	-0.3	6.6	+5.9%	-4.9%	+11.3%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.7	97.4	14.6	8.5	103.3	0.4	-0.3	5.9	+3.0%	-2.9%	+6.0%
	I to J	M2 J1	M2 J4	14.9	8.4	106.8	14.4	8.2	105.4	-0.5	-0.2	-1.4	-3.3%	-2.0%	-1.3%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.4	107.5	15.0	8.5	105.8	0.0	0.1	-1.7	+0.0%	+1.6%	-1.6%
	I to D	M2 J1	M25 J2	14.7	10.7	82.9	14.8	8.9	99.4	0.1	-1.7	16.5	+0.4%	-16.3%	+19.9%
M20 EB	E to K	M25 J3	M20 J8	35.2	22.9	92.3	35.2	22.5	93.7	0.0	-0.4	1.4	+0.0%	-1.5%	+1.6%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.1	105.6	35.4	19.9	106.9	0.0	-0.2	1.2	+0.0%	-1.2%	+1.2%

Table D51 – Link Based Journey Time Scenario Comparison (2041 Low Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.9	78.9	23.5	17.7	79.5	-0.0	-0.2	0.6	-0.1%	-0.9%	+0.8%
	B to D	M25 J29	M25 J2	18.9	15.2	74.5	18.9	12.6	90.1	-0.0	-2.6	15.6	-0.1%	-17.3%	+20.9%
	D to F	M25 J2	M25 J7	37.4	22.9	97.8	37.4	23.3	96.4	0.0	0.3	-1.4	+0.0%	+1.5%	-1.4%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	30.0	75.6	37.8	30.5	74.5	0.0	0.4	-1.1	+0.0%	+1.5%	-1.5%
	D to B	M25 J2	M25 J29	18.6	23.4	47.8	18.4	15.3	72.4	-0.2	-8.1	24.6	-1.1%	-34.7%	+51.6%
	B to A	M25 J29	M25 J26	23.4	15.7	89.2	23.3	15.7	89.3	-0.0	-0.0	0.0	-0.1%	-0.1%	+0.1%
A13 EB	C to G	M25 J30	A1089	5.0	6.5	46.3	5.2	5.4	58.0	0.2	-1.2	11.6	+3.1%	-17.6%	+25.1%
	G to H	A1089	A130	15.7	11.7	80.3	15.7	13.4	70.6	-0.0	1.6	-9.8	-0.0%	+13.8%	-12.1%
A13 WB	H to G	A130	A1089	15.6	10.9	85.5	15.6	12.9	72.7	0.0	1.9	-12.8	+0.1%	+17.7%	-15.0%
	G to C	A1089	M25 J30	5.3	5.4	58.1	5.6	4.9	67.8	0.3	-0.5	9.6	+5.9%	-9.2%	+16.6%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	13.3	64.1	14.6	10.0	87.9	0.4	-3.3	23.8	+3.0%	-24.9%	+37.1%
	I to J	M2 J1	M2 J4	14.9	9.3	96.6	14.4	10.6	81.3	-0.5	1.4	-15.3	-3.3%	+15.0%	-15.9%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.7	104.4	15.0	8.8	102.2	0.0	0.2	-2.2	+0.0%	+2.1%	-2.1%
	I to D	M2 J1	M25 J2	14.7	12.7	69.8	14.8	10.3	86.0	0.1	-2.4	16.2	+0.4%	-18.6%	+23.3%
M20 EB	E to K	M25 J3	M20 J8	35.2	28.2	74.9	35.2	28.8	73.3	0.0	0.6	-1.6	+0.0%	+2.1%	-2.1%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.1	105.8	35.4	19.9	106.9	0.0	-0.2	1.1	+0.0%	-1.0%	+1.0%

Table D52 – Route Based Journey Time Comparison North to South Movements (2041 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.8	62.6	59.2	61.7	60.5	61.2	-0.0	-2.1	2.0	-0.1%	-3.4%	+3.4%
1 to 6	Cheshunt	Godstone	91.6	86.5	63.6	91.6	84.7	64.9	-0.0	-1.8	1.3	-0.0%	-2.1%	+2.1%
1 to 7	Cheshunt	Southfleet	60.7	58.6	62.2	60.7	55.3	65.9	0.1	-3.3	3.8	+0.1%	-5.6%	+6.0%
1 to 8	Cheshunt	Maidstone	88.1	76.4	69.2	88.0	72.0	73.3	-0.0	-4.4	4.1	-0.0%	-5.7%	+6.0%
1 to 9	Cheshunt	Rochester	76.6	77.4	59.4	70.7	69.7	60.9	-5.9	-7.7	1.5	-7.7%	-9.9%	+2.5%
1 to 10	Cheshunt	Rainham	92.3	80.9	68.5	87.7	72.4	72.6	-4.7	-8.4	4.1	-5.1%	-10.4%	+6.0%
2 to 5	Romford	Bexley	31.8	49.2	38.8	31.8	47.1	40.5	0.0	-2.1	1.8	+0.0%	-4.3%	+4.5%
2 to 6	Romford	Godstone	61.7	73.1	50.6	61.7	71.3	51.9	0.0	-1.8	1.3	+0.0%	-2.4%	+2.5%
2 to 7	Romford	Southfleet	30.7	45.2	40.8	30.8	41.9	44.1	0.1	-3.3	3.3	+0.3%	-7.3%	+8.2%
2 to 8	Romford	Maidstone	58.1	63.0	55.3	58.1	58.6	59.5	0.0	-4.4	4.1	+0.0%	-6.9%	+7.4%
2 to 9	Romford	Rochester	45.8	64.3	42.8	47.0	55.6	50.7	1.2	-8.6	7.9	+2.6%	-13.4%	+18.6%
2 to 10	Romford	Rainham	62.4	67.5	55.4	63.8	58.4	65.6	1.4	-9.1	10.1	+2.3%	-13.5%	+18.3%
3 to 5	Brentwood	Bexley	33.3	38.0	52.6	33.3	35.4	56.5	-0.0	-2.6	3.9	-0.0%	-6.8%	+7.3%
3 to 6	Brentwood	Godstone	63.2	61.9	61.3	63.2	59.6	63.6	-0.0	-2.3	2.3	-0.0%	-3.7%	+3.8%
3 to 7	Brentwood	Southfleet	34.0	37.3	54.6	32.3	30.2	64.3	-1.6	-7.2	9.7	-4.8%	-19.2%	+17.8%
3 to 8	Brentwood	Maidstone	59.6	51.8	69.1	59.6	46.9	76.2	-0.0	-4.8	7.1	-0.0%	-9.3%	+10.3%
3 to 9	Brentwood	Rochester	48.2	52.8	54.8	42.3	44.7	56.9	-5.9	-8.2	2.1	-12.2%	-15.5%	+3.9%
3 to 10	Brentwood	Rainham	63.9	56.3	68.1	59.3	47.4	75.1	-4.6	-8.9	6.9	-7.3%	-15.8%	+10.2%
4 to 5	Basildon	Bexley	38.6	46.6	49.7	38.8	41.8	55.7	0.2	-4.8	5.9	+0.5%	-10.2%	+11.9%
4 to 6	Basildon	Godstone	68.5	70.5	58.3	68.6	66.1	62.4	0.2	-4.4	4.1	+0.3%	-6.3%	+7.0%
4 to 7	Basildon	Southfleet	37.5	42.5	52.9	33.4	29.5	68.0	-4.1	-13.1	15.1	-11.0%	-30.7%	+28.6%
4 to 8	Basildon	Maidstone	64.9	60.3	64.5	47.8	49.6	57.8	-17.1	-10.8	-6.7	-26.4%	-17.9%	-10.4%
4 to 9	Basildon	Rochester	53.5	61.4	52.2	35.6	43.0	49.7	-17.9	-18.4	-2.6	-33.4%	-30.0%	-4.9%
4 to 10	Basildon	Rainham	69.2	64.8	64.0	52.5	45.7	68.9	-16.6	-19.1	4.9	-24.0%	-29.5%	+7.7%

Table D53 – Route Based Journey Time Comparison North to South Movements (2041 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.8	50.6	73.3	61.8	50.0	74.1	-0.0	-0.6	0.9	-0.0%	-1.2%	+1.2%
1 to 6	Cheshunt	Godstone	91.4	67.5	81.3	91.3	66.6	82.3	-0.0	-0.9	1.0	-0.0%	-1.3%	+1.3%
1 to 7	Cheshunt	Southfleet	60.7	49.2	74.0	60.8	48.2	75.7	0.1	-1.1	1.7	+0.1%	-2.2%	+2.3%
1 to 8	Cheshunt	Maidstone	88.1	64.5	81.9	82.5	63.3	78.1	-5.6	-1.2	-3.8	-6.4%	-1.8%	-4.6%
1 to 9	Cheshunt	Rochester	76.5	64.9	70.7	70.9	60.0	70.9	-5.5	-4.9	0.2	-7.2%	-7.5%	+0.3%
1 to 10	Cheshunt	Rainham	91.5	69.4	79.1	86.8	63.7	81.8	-4.7	-5.7	2.7	-5.1%	-8.3%	+3.4%
2 to 5	Romford	Bexley	35.4	41.0	51.8	35.5	39.1	54.5	0.2	-1.9	2.8	+0.5%	-4.6%	+5.4%
2 to 6	Romford	Godstone	64.9	57.8	67.4	64.9	55.7	69.9	-0.0	-2.1	2.5	-0.0%	-3.6%	+3.7%
2 to 7	Romford	Southfleet	34.3	39.6	52.0	34.3	37.3	55.3	0.1	-2.3	3.3	+0.2%	-5.8%	+6.4%
2 to 8	Romford	Maidstone	61.6	54.9	67.4	56.0	52.4	64.1	-5.6	-2.4	-3.3	-9.1%	-4.4%	-4.9%
2 to 9	Romford	Rochester	49.9	55.2	54.3	44.5	49.1	54.4	-5.5	-6.1	0.1	-10.9%	-11.1%	+0.2%
2 to 10	Romford	Rainham	65.0	59.8	65.3	60.4	52.8	68.6	-4.6	-7.0	3.3	-7.1%	-11.6%	+5.1%
3 to 5	Brentwood	Bexley	32.5	31.5	61.8	32.6	30.3	64.5	0.1	-1.2	2.7	+0.5%	-3.7%	+4.4%
3 to 6	Brentwood	Godstone	62.1	48.3	77.0	62.0	47.0	79.2	-0.0	-1.4	2.2	-0.1%	-2.8%	+2.9%
3 to 7	Brentwood	Southfleet	31.4	30.1	62.6	31.5	28.5	66.2	0.1	-1.6	3.6	+0.2%	-5.2%	+5.7%
3 to 8	Brentwood	Maidstone	58.8	45.4	77.7	53.2	43.7	73.0	-5.6	-1.7	-4.7	-9.6%	-3.7%	-6.1%
3 to 9	Brentwood	Rochester	47.1	45.8	61.7	41.7	40.3	62.0	-5.4	-5.4	0.3	-11.4%	-11.8%	+0.5%
3 to 10	Brentwood	Rainham	62.2	50.3	74.2	57.5	44.1	78.3	-4.7	-6.2	4.1	-7.5%	-12.4%	+5.6%
4 to 5	Basildon	Bexley	39.1	35.1	67.0	39.3	33.7	70.0	0.2	-1.4	3.0	+0.4%	-3.9%	+4.4%
4 to 6	Basildon	Godstone	68.7	51.9	79.5	68.7	50.3	81.9	-0.0	-1.6	2.4	-0.1%	-3.0%	+3.0%
4 to 7	Basildon	Southfleet	38.1	33.6	67.9	33.4	26.4	75.8	-4.7	-7.2	7.9	-12.3%	-21.5%	+11.7%
4 to 8	Basildon	Maidstone	65.4	48.9	80.2	47.3	41.2	68.9	-18.1	-7.7	-11.3	-27.7%	-15.8%	-14.1%
4 to 9	Basildon	Rochester	53.8	49.3	65.5	35.7	37.8	56.7	-18.0	-11.4	-8.8	-33.6%	-23.2%	-13.5%
4 to 10	Basildon	Rainham	68.8	53.8	76.7	51.7	41.6	74.6	-17.2	-12.3	-2.1	-25.0%	-22.8%	-2.8%

Table D54 – Route Based Journey Time Comparison North to South Movements (2041 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.3	58.5	63.8	62.2	57.7	64.7	-0.1	-0.9	0.9	-0.1%	-1.5%	+1.4%
1 to 6	Cheshunt	Godstone	92.0	75.1	73.5	92.0	73.7	74.9	-0.0	-1.4	1.3	-0.0%	-1.8%	+1.8%
1 to 7	Cheshunt	Southfleet	61.1	56.3	65.0	61.0	55.2	66.3	-0.0	-1.1	1.3	-0.0%	-2.0%	+2.0%
1 to 8	Cheshunt	Maidstone	88.4	77.0	68.9	82.8	71.3	69.7	-5.6	-5.7	0.8	-6.4%	-7.5%	+1.2%
1 to 9	Cheshunt	Rochester	76.9	80.3	57.4	71.3	72.0	59.4	-5.6	-8.3	1.9	-7.3%	-10.3%	+3.4%
1 to 10	Cheshunt	Rainham	92.7	87.4	63.6	88.0	81.1	65.1	-4.7	-6.3	1.5	-5.0%	-7.2%	+2.3%
2 to 5	Romford	Bexley	38.1	45.8	49.8	35.4	44.1	48.1	-2.7	-1.7	-1.7	-7.1%	-3.7%	-3.4%
2 to 6	Romford	Godstone	67.7	62.4	65.1	65.2	60.1	65.1	-2.5	-2.3	-0.0	-3.7%	-3.6%	-0.1%
2 to 7	Romford	Southfleet	36.8	43.7	50.5	34.3	41.7	49.4	-2.5	-2.0	-1.2	-6.8%	-4.6%	-2.3%
2 to 8	Romford	Maidstone	64.2	64.4	59.8	56.1	57.7	58.3	-8.1	-6.6	-1.5	-12.6%	-10.3%	-2.6%
2 to 9	Romford	Rochester	52.6	67.6	46.7	44.5	58.5	45.7	-8.1	-9.2	-1.0	-15.4%	-13.6%	-2.1%
2 to 10	Romford	Rainham	68.4	74.7	54.9	61.3	67.6	54.4	-7.1	-7.2	-0.5	-10.4%	-9.6%	-0.9%
3 to 5	Brentwood	Bexley	33.5	36.3	55.4	33.3	34.9	57.3	-0.2	-1.4	1.9	-0.6%	-3.9%	+3.4%
3 to 6	Brentwood	Godstone	63.2	52.8	71.8	63.2	50.9	74.5	-0.0	-1.9	2.7	-0.0%	-3.7%	+3.8%
3 to 7	Brentwood	Southfleet	32.3	34.1	56.7	32.2	32.4	59.6	-0.0	-1.7	2.9	-0.0%	-5.0%	+5.2%
3 to 8	Brentwood	Maidstone	59.6	54.8	65.3	54.0	48.5	66.8	-5.6	-6.3	1.6	-9.4%	-11.5%	+2.4%
3 to 9	Brentwood	Rochester	46.8	58.3	48.1	42.2	49.3	51.5	-4.6	-9.1	3.3	-9.7%	-15.5%	+6.9%
3 to 10	Brentwood	Rainham	63.9	65.2	58.8	59.2	58.3	60.9	-4.7	-6.8	2.1	-7.3%	-10.5%	+3.6%
4 to 5	Basildon	Bexley	36.7	40.8	54.0	36.7	38.1	57.8	-0.0	-2.7	3.8	-0.1%	-6.6%	+7.0%
4 to 6	Basildon	Godstone	66.5	57.3	69.6	66.5	54.1	73.7	0.0	-3.2	4.1	+0.0%	-5.6%	+5.9%
4 to 7	Basildon	Southfleet	35.5	38.6	55.2	33.4	28.4	70.5	-2.1	-10.2	15.4	-5.9%	-26.4%	+27.8%
4 to 8	Basildon	Maidstone	62.9	59.3	63.6	47.3	44.3	64.0	-15.6	-14.9	0.3	-24.8%	-25.2%	+0.5%
4 to 9	Basildon	Rochester	51.3	62.6	49.2	35.7	45.1	47.6	-15.6	-17.5	-1.7	-30.4%	-27.9%	-3.4%
4 to 10	Basildon	Rainham	67.2	69.7	57.8	52.5	54.2	58.1	-14.6	-15.5	0.3	-21.8%	-22.2%	+0.5%

Table D55 – Route Based Journey Time Comparison South to North Movements (2041 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	58.4	63.3	61.6	55.8	66.2	-0.0	-2.6	2.9	-0.1%	-4.5%	+4.6%
5 to 2	Bexley	Romford	33.4	44.5	45.1	33.4	40.2	49.9	0.0	-4.3	4.8	+0.0%	-9.6%	+10.7%
5 to 3	Bexley	Brentwood	34.4	42.9	48.2	34.3	38.0	54.2	-0.2	-4.9	6.0	-0.5%	-11.5%	+12.4%
5 to 4	Bexley	Basildon	36.5	39.8	55.0	36.5	35.6	61.4	-0.0	-4.2	6.5	-0.0%	-10.5%	+11.8%
6 to 1	Godstone	Cheshunt	91.2	78.6	69.7	91.2	75.6	72.3	-0.0	-2.9	2.7	-0.1%	-3.7%	+3.8%
6 to 2	Godstone	Romford	63.0	64.6	58.5	63.0	60.0	63.0	-0.0	-4.6	4.5	-0.0%	-7.1%	+7.7%
6 to 3	Godstone	Brentwood	64.0	63.0	61.0	63.9	57.8	66.3	-0.2	-5.2	5.3	-0.3%	-8.3%	+8.7%
6 to 4	Godstone	Basildon	66.1	60.0	66.1	66.1	55.5	71.5	-0.0	-4.5	5.4	-0.0%	-7.5%	+8.1%
7 to 1	Southfleet	Cheshunt	60.7	58.3	62.4	60.6	53.7	67.7	-0.0	-4.6	5.3	-0.1%	-7.9%	+8.5%
7 to 2	Southfleet	Romford	32.5	44.4	43.9	32.5	38.1	51.1	-0.0	-6.3	7.2	-0.0%	-14.2%	+16.5%
7 to 3	Southfleet	Brentwood	33.5	42.8	47.0	33.3	35.9	55.7	-0.2	-6.9	8.7	-0.6%	-16.1%	+18.6%
7 to 4	Southfleet	Basildon	35.5	39.7	53.7	35.5	28.1	75.8	-0.1	-11.7	22.1	-0.2%	-29.3%	+41.3%
8 to 1	Maidstone	Cheshunt	88.1	80.9	65.4	88.1	75.6	69.9	-0.1	-5.3	4.6	-0.1%	-6.6%	+7.0%
8 to 2	Maidstone	Romford	59.9	67.0	53.7	59.9	60.0	60.0	0.0	-7.0	6.3	+0.0%	-10.4%	+11.6%
8 to 3	Maidstone	Brentwood	61.0	65.3	56.0	55.1	58.6	56.5	-5.9	-6.7	0.4	-9.6%	-10.3%	+0.8%
8 to 4	Maidstone	Basildon	63.0	62.3	60.7	50.7	49.9	60.9	-12.4	-12.4	0.2	-19.6%	-19.9%	+0.4%
9 to 1	Rochester	Cheshunt	77.0	83.5	55.3	73.0	69.5	63.0	-4.0	-14.1	7.7	-5.2%	-16.8%	+13.9%
9 to 2	Rochester	Romford	48.8	69.6	42.1	46.9	54.7	51.4	-1.9	-14.9	9.3	-4.0%	-21.4%	+22.2%
9 to 3	Rochester	Brentwood	49.9	68.0	44.0	44.2	50.8	52.3	-5.6	-17.2	8.3	-11.3%	-25.3%	+18.8%
9 to 4	Rochester	Basildon	51.9	64.9	48.0	39.8	42.0	56.8	-12.1	-22.9	8.8	-23.4%	-35.3%	+18.4%
10 to 1	Rainham	Cheshunt	92.6	90.0	61.7	88.5	75.8	70.1	-4.0	-14.2	8.4	-4.3%	-15.8%	+13.6%
10 to 2	Rainham	Romford	64.4	76.1	50.8	62.1	61.3	60.8	-2.3	-14.8	10.0	-3.5%	-19.4%	+19.7%
10 to 3	Rainham	Brentwood	65.4	74.5	52.7	59.8	57.1	62.8	-5.6	-17.4	10.2	-8.6%	-23.4%	+19.3%
10 to 4	Rainham	Basildon	67.4	71.4	56.6	55.3	48.4	68.6	-12.1	-23.1	12.0	-17.9%	-32.3%	+21.2%

Table D56 – Route Based Journey Time Comparison South to North Movements (2041 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	53.2	69.4	61.5	50.6	73.0	-0.0	-2.6	3.6	-0.1%	-5.0%	+5.1%
5 to 2	Bexley	Romford	35.7	39.1	54.8	35.5	35.7	59.6	-0.2	-3.3	4.8	-0.5%	-8.5%	+8.8%
5 to 3	Bexley	Brentwood	32.3	36.1	53.6	32.1	32.3	59.6	-0.2	-3.9	6.0	-0.6%	-10.7%	+11.3%
5 to 4	Bexley	Basildon	36.5	37.6	58.2	36.5	33.1	66.1	-0.0	-4.5	7.9	-0.0%	-12.0%	+13.6%
6 to 1	Godstone	Cheshunt	91.5	73.1	75.1	91.4	70.7	77.6	-0.0	-2.4	2.5	-0.0%	-3.2%	+3.3%
6 to 2	Godstone	Romford	65.6	58.9	66.8	65.4	55.8	70.2	-0.2	-3.1	3.5	-0.3%	-5.2%	+5.2%
6 to 3	Godstone	Brentwood	62.2	56.0	66.6	62.0	52.4	71.0	-0.2	-3.6	4.3	-0.3%	-6.4%	+6.5%
6 to 4	Godstone	Basildon	66.4	57.5	69.3	66.4	53.2	74.8	-0.0	-4.3	5.5	-0.0%	-7.4%	+8.0%
7 to 1	Southfleet	Cheshunt	60.7	52.3	69.5	60.6	49.3	73.7	-0.0	-3.0	4.2	-0.1%	-5.8%	+6.1%
7 to 2	Southfleet	Romford	34.7	38.2	54.5	34.6	34.5	60.1	-0.2	-3.7	5.6	-0.5%	-9.8%	+10.2%
7 to 3	Southfleet	Brentwood	31.3	35.3	53.3	31.1	31.0	60.2	-0.2	-4.2	6.9	-0.6%	-12.0%	+13.0%
7 to 4	Southfleet	Basildon	35.5	36.8	58.0	35.5	26.9	79.2	-0.1	-9.9	21.1	-0.2%	-26.8%	+36.4%
8 to 1	Maidstone	Cheshunt	88.1	73.7	71.7	83.8	70.9	71.0	-4.3	-2.9	-0.7	-4.9%	-3.9%	-1.0%
8 to 2	Maidstone	Romford	62.2	59.6	62.7	57.8	55.9	62.0	-4.4	-3.7	-0.6	-7.1%	-6.2%	-1.0%
8 to 3	Maidstone	Brentwood	58.8	56.6	62.3	55.0	50.5	65.3	-3.8	-6.1	3.0	-6.5%	-10.8%	+4.8%
8 to 4	Maidstone	Basildon	63.0	58.1	65.1	50.7	46.0	66.1	-12.4	-12.1	1.0	-19.6%	-20.8%	+1.5%
9 to 1	Rochester	Cheshunt	77.0	71.8	64.3	72.9	62.8	69.7	-4.0	-9.0	5.4	-5.2%	-12.5%	+8.4%
9 to 2	Rochester	Romford	51.1	57.7	53.1	46.9	47.8	58.8	-4.2	-9.8	5.7	-8.2%	-17.0%	+10.7%
9 to 3	Rochester	Brentwood	47.7	54.7	52.3	44.1	42.5	62.3	-3.6	-12.3	10.0	-7.5%	-22.4%	+19.2%
9 to 4	Rochester	Basildon	51.9	56.2	55.4	39.8	38.0	62.9	-12.1	-18.2	7.5	-23.3%	-32.4%	+13.5%
10 to 1	Rainham	Cheshunt	91.6	75.2	73.1	87.6	66.1	79.5	-4.0	-9.1	6.4	-4.4%	-12.0%	+8.7%
10 to 2	Rainham	Romford	65.8	61.0	64.6	61.6	51.2	72.2	-4.2	-9.9	7.6	-6.3%	-16.2%	+11.7%
10 to 3	Rainham	Brentwood	62.3	58.1	64.4	58.8	45.8	77.0	-3.6	-12.3	12.6	-5.7%	-21.2%	+19.6%
10 to 4	Rainham	Basildon	66.6	59.6	67.0	54.5	41.3	79.2	-12.1	-18.3	12.1	-18.2%	-30.7%	+18.1%

Table D57 – Route Based Journey Time Comparison South to North Movements (2041 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	63.7	59.0	64.7	63.6	57.1	66.9	-0.0	-1.9	2.1	-0.1%	-3.3%	+3.3%
5 to 2	Bexley	Romford	39.3	45.5	51.9	39.3	42.9	54.9	-0.0	-2.5	3.0	-0.1%	-5.6%	+5.8%
5 to 3	Bexley	Brentwood	34.6	46.5	44.7	36.4	40.2	54.4	1.8	-6.3	9.7	+5.3%	-13.6%	+21.8%
5 to 4	Bexley	Basildon	38.7	47.6	48.8	38.7	44.0	52.8	-0.0	-3.6	4.0	-0.0%	-7.6%	+8.2%
6 to 1	Godstone	Cheshunt	91.2	76.3	71.7	91.2	74.4	73.5	-0.0	-2.0	1.8	-0.0%	-2.6%	+2.6%
6 to 2	Godstone	Romford	66.7	62.8	63.7	66.7	60.3	66.4	-0.0	-2.6	2.7	-0.1%	-4.1%	+4.2%
6 to 3	Godstone	Brentwood	62.0	63.8	58.3	63.9	57.5	66.6	1.8	-6.3	8.3	+3.0%	-9.9%	+14.3%
6 to 4	Godstone	Basildon	66.1	64.9	61.1	66.1	61.3	64.7	-0.0	-3.6	3.6	-0.0%	-5.6%	+5.9%
7 to 1	Southfleet	Cheshunt	60.7	53.7	67.8	60.6	50.6	71.8	-0.0	-3.0	4.0	-0.1%	-9.1%	+10.1%
7 to 2	Southfleet	Romford	36.2	40.2	54.0	36.2	36.5	59.5	0.0	-3.6	5.4	+0.1%	-9.1%	+10.1%
7 to 3	Southfleet	Brentwood	31.5	41.2	45.9	33.3	33.8	59.2	1.8	-7.4	13.3	+5.8%	-18.0%	+29.0%
7 to 4	Southfleet	Basildon	35.5	42.3	50.4	36.0	31.0	69.7	0.5	-11.3	19.3	+1.3%	-26.8%	+38.3%
8 to 1	Maidstone	Cheshunt	88.1	71.3	74.2	88.1	68.4	77.3	-0.0	-2.9	3.1	-0.1%	-4.1%	+4.2%
8 to 2	Maidstone	Romford	63.7	57.8	66.1	63.6	54.3	70.4	-0.0	-3.5	4.2	-0.1%	-6.1%	+6.4%
8 to 3	Maidstone	Brentwood	59.0	58.8	60.2	60.8	51.5	70.9	1.8	-7.3	10.6	+3.1%	-12.4%	+17.7%
8 to 4	Maidstone	Basildon	63.0	59.9	63.1	51.8	50.6	61.4	-11.2	-9.3	-1.7	-17.8%	-15.5%	-2.8%
9 to 1	Rochester	Cheshunt	75.4	81.7	55.4	71.3	70.8	60.4	-4.1	-10.9	5.1	-5.4%	-13.3%	+9.2%
9 to 2	Rochester	Romford	51.0	68.2	44.9	47.5	56.7	50.2	-3.6	-11.4	5.3	-7.0%	-16.7%	+11.7%
9 to 3	Rochester	Brentwood	46.3	69.2	40.2	42.7	52.2	49.1	-3.6	-16.9	8.9	-7.8%	-24.5%	+22.1%
9 to 4	Rochester	Basildon	50.4	70.3	43.0	38.2	48.9	47.0	-12.1	-21.4	3.9	-24.1%	-30.5%	+9.2%
10 to 1	Rainham	Cheshunt	92.6	79.7	69.7	88.5	68.5	77.6	-4.0	-11.2	7.9	-4.3%	-14.1%	+11.3%
10 to 2	Rainham	Romford	68.1	66.2	61.7	61.6	55.8	66.2	-6.5	-10.4	4.5	-9.6%	-15.7%	+7.3%
10 to 3	Rainham	Brentwood	63.4	67.2	56.6	59.8	50.0	71.8	-3.6	-17.3	15.2	-5.6%	-25.7%	+26.9%
10 to 4	Rainham	Basildon	67.4	68.3	59.2	55.3	46.6	71.2	-12.1	-21.7	12.0	-17.9%	-31.8%	+20.3%

D.5 LTAM 2051 Low Growth – Outputs to Economic Assessment

D.5.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2051 low growth forecast.

Matrix Total Comparison

D.5.2 Table D58 and Table D59 provide a comparison of the VDM output core scenario matrices and the 2051 low growth matrices for all movements and relevant movements respectively.

Table D58 – Matrix Total Comparison – 2051 Low Growth All Movements (PCU's)

Userclass	Time Period	All Movements									
		Core Scenario VDM Output Matrix (2051 DM)	Low Growth Scenario (2051 DM)				Core Scenario VDM Output Matrix (2051 DS)	Low Growth Scenario (2051 DS)			
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	558,337	492,262	-66,075	-11.8%	558,483	492,408	-66,075	-11.8%		
	IP	485,254	427,782	-57,472	-11.8%	485,232	427,760	-57,472	-11.8%		
	PM	665,880	586,851	-79,029	-11.9%	665,939	586,910	-79,029	-11.9%		
	OP	197,090	173,937	-23,153	-11.7%	197,065	173,912	-23,153	-11.7%		
Car Commute Low Income	AM	500,863	439,299	-61,564	-12.3%	500,849	439,285	-61,565	-12.3%		
	IP	230,498	202,548	-27,950	-12.1%	230,516	202,565	-27,951	-12.1%		
	PM	577,250	506,887	-70,363	-12.2%	577,278	506,914	-70,364	-12.2%		
	OP	92,975	81,709	-11,266	-12.1%	92,974	81,709	-11,266	-12.1%		
Car Commute Medium Income	AM	1,017,946	893,189	-124,757	-12.3%	1,018,120	893,363	-124,757	-12.3%		
	IP	354,347	311,366	-42,981	-12.1%	354,330	311,349	-42,981	-12.1%		
	PM	1,110,766	975,588	-135,178	-12.2%	1,110,824	975,645	-135,179	-12.2%		
	OP	142,884	125,556	-17,327	-12.1%	142,867	125,540	-17,327	-12.1%		
Car Commute High Income	AM	867,922	761,699	-106,223	-12.2%	867,834	761,611	-106,223	-12.2%		
	IP	251,618	220,970	-30,648	-12.2%	251,636	220,988	-30,648	-12.2%		
	PM	897,064	787,616	-109,448	-12.2%	897,268	787,820	-109,448	-12.2%		
	OP	101,483	89,138	-12,345	-12.2%	101,477	89,132	-12,345	-12.2%		
Car Other Low Income	AM	846,183	751,547	-94,636	-11.2%	846,670	752,025	-94,644	-11.2%		
	IP	1,496,915	1,328,571	-168,344	-11.2%	1,496,943	1,328,587	-168,356	-11.2%		
	PM	1,454,935	1,290,790	-164,145	-11.3%	1,455,147	1,290,988	-164,159	-11.3%		
Car Other Medium Income	OP	607,808	539,921	-67,887	-11.2%	607,695	539,803	-67,893	-11.2%		
	AM	916,389	813,997	-102,393	-11.2%	916,620	814,225	-102,395	-11.2%		
	IP	1,219,465	1,083,211	-136,254	-11.2%	1,219,564	1,083,308	-136,256	-11.2%		
	PM	1,494,952	1,327,547	-167,405	-11.2%	1,495,021	1,327,614	-167,407	-11.2%		
Car Other High Income	OP	495,945	441,050	-54,895	-11.1%	495,869	440,974	-54,895	-11.1%		
	AM	738,322	656,239	-82,083	-11.1%	738,516	656,433	-82,084	-11.1%		
	IP	824,752	733,193	-91,559	-11.1%	824,749	733,189	-91,560	-11.1%		
	PM	1,141,057	1,014,173	-126,884	-11.1%	1,141,327	1,014,442	-126,884	-11.1%		
Car Total	OP	336,365	299,491	-36,875	-11.0%	336,286	299,411	-36,875	-11.0%		
	AM	5,445,962	4,808,232	-637,730	-11.7%	5,447,092	4,809,350	-637,742	-11.7%		
	IP	4,862,849	4,307,641	-555,208	-11.4%	4,862,968	4,307,745	-555,223	-11.4%		
	PM	7,341,904	6,489,453	-852,451	-11.6%	7,342,803	6,490,334	-852,469	-11.6%		
LGV	OP	1,974,549	1,750,802	-223,747	-11.3%	1,974,234	1,750,481	-223,753	-11.3%		
	AM	1,411,959	1,304,251	-107,708	-7.6%	1,411,959	1,304,251	-107,708	-7.6%		
	IP	1,217,803	1,125,023	-92,780	-7.6%	1,217,803	1,125,023	-92,780	-7.6%		
	PM	1,018,693	941,059	-77,634	-7.6%	1,018,693	941,059	-77,634	-7.6%		
HGV	OP	489,362	451,947	-37,415	-7.6%	489,362	451,947	-37,415	-7.6%		
	AM	499,458	444,035	-55,423	-11.1%	499,458	444,035	-55,423	-11.1%		
	IP	496,412	441,301	-55,112	-11.1%	496,412	441,301	-55,112	-11.1%		
	PM	312,731	278,040	-34,691	-11.1%	312,731	278,040	-34,691	-11.1%		
OP	198,163	176,024	-22,139	-11.2%	198,163	176,024	-22,139	-11.2%			

Table D59 – Matrix Total Comparison – 2051 Low Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2051 DM)	Low Growth Scenario (2051 DM)		Core Scenario VDM Output Matrix (2051 DS)	Low Growth Scenario (2051 DS)			
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	44,942	39,471	-5,471	-12.2%	45,104	39,633	-5,471	-12.1%
	IP	31,827	28,080	-3,747	-11.8%	31,819	28,072	-3,747	-11.8%
	PM	44,898	39,506	-5,393	-12.0%	44,981	39,589	-5,393	-12.0%
	OP	13,363	11,881	-1,481	-11.1%	13,342	11,861	-1,482	-11.1%
Car Commute Low Income	AM	35,316	30,911	-4,405	-12.5%	35,294	30,889	-4,406	-12.5%
	IP	20,096	17,659	-2,436	-12.1%	20,113	17,677	-2,436	-12.1%
	PM	37,383	32,777	-4,607	-12.3%	37,411	32,804	-4,607	-12.3%
	OP	8,016	7,046	-969	-12.1%	8,015	7,045	-969	-12.1%
Car Commute Medium Income	AM	75,128	65,595	-9,533	-12.7%	75,292	65,759	-9,533	-12.7%
	IP	30,730	27,015	-3,715	-12.1%	30,714	26,999	-3,715	-12.1%
	PM	73,737	64,509	-9,228	-12.5%	73,791	64,562	-9,228	-12.5%
	OP	12,335	10,850	-1,485	-12.0%	12,318	10,833	-1,485	-12.1%
Car Commute High Income	AM	71,669	62,571	-9,098	-12.7%	71,570	62,472	-9,098	-12.7%
	IP	26,064	22,890	-3,173	-12.2%	26,084	22,910	-3,173	-12.2%
	PM	71,651	62,647	-9,004	-12.6%	71,855	62,850	-9,004	-12.5%
	OP	10,559	9,292	-1,267	-12.0%	10,552	9,285	-1,267	-12.0%
Car Other Low Income	AM	80,320	70,879	-9,441	-11.8%	80,826	71,383	-9,442	-11.7%
	IP	113,311	100,241	-13,070	-11.5%	113,368	100,298	-13,070	-11.5%
	PM	116,607	102,736	-13,871	-11.9%	116,850	102,977	-13,873	-11.9%
	OP	48,419	43,212	-5,207	-10.8%	48,325	43,118	-5,207	-10.8%
Car Other Medium Income	AM	92,264	81,593	-10,671	-11.6%	92,527	81,856	-10,671	-11.5%
	IP	111,424	98,979	-12,445	-11.2%	111,571	99,126	-12,445	-11.2%
	PM	137,673	121,877	-15,797	-11.5%	137,807	122,010	-15,797	-11.5%
	OP	47,781	42,837	-4,944	-10.3%	47,720	42,776	-4,944	-10.4%
Car Other High Income	AM	89,084	78,925	-10,159	-11.4%	89,316	79,157	-10,159	-11.4%
	IP	92,724	82,536	-10,188	-11.0%	92,765	82,577	-10,188	-11.0%
	PM	126,184	111,993	-14,192	-11.2%	126,531	112,339	-14,192	-11.2%
	OP	40,129	36,068	-4,061	-10.1%	40,063	36,003	-4,061	-10.1%
Car Total	AM	488,722	429,944	-58,778	-12.0%	489,929	431,149	-58,780	-12.0%
	IP	426,175	377,400	-48,775	-11.4%	426,434	377,659	-48,776	-11.4%
	PM	608,134	536,043	-72,091	-11.9%	609,225	537,132	-72,094	-11.8%
	OP	180,602	161,188	-19,414	-10.7%	180,336	160,921	-19,415	-10.8%
LGV	AM	168,031	155,354	-12,677	-7.5%	168,031	155,354	-12,677	-7.5%
	IP	126,843	117,402	-9,440	-7.4%	126,843	117,402	-9,440	-7.4%
	PM	130,945	121,115	-9,829	-7.5%	130,945	121,115	-9,829	-7.5%
HGV	AM	76,632	68,556	-8,076	-10.5%	76,632	68,556	-8,076	-10.5%
	IP	78,912	70,628	-8,284	-10.5%	78,912	70,628	-8,284	-10.5%
	PM	47,791	42,774	-5,017	-10.5%	47,791	42,774	-5,017	-10.5%
	OP	30,084	26,823	-3,262	-10.8%	30,084	26,823	-3,262	-10.8%

Highway Assignment Model (HAM) Convergence Statistics

D.5.3 Table D60 to Table D62 provide the highway assignment model convergence statistics for the 2051 low growth DM forecasts. Table D63 to Table D65 provide the highway assignment model convergence statistics for the 2051 low growth DS forecasts.

Table D60 – HAM Convergence Statistics – 2051 Low Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
56	0.0075	0.011	98.1	99.0
57	0.0077	0.0095	97.6	98.9
58	0.0058	0.0093	98.0	98.9
59	0.0070	0.0080	98.1	99.0

Table D61 – HAM Convergence Statistics – 2051 Low Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
67	0.0050	0.012	97.8	99.1
68	0.0152	0.0053	97.7	99.1
69	0.0058	0.012	98.4	99.3
70	0.0144	0.0057	97.7	99.1

Table D62 – HAM Convergence Statistics – 2051 Low Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
75	0.0049	0.0069	98.2	99.0
76	0.0046	0.0064	98.0	99.1
77	0.0048	0.0055	98.2	99.1
78	0.0038	0.0076	98.4	99.1

Table D63 – HAM Convergence Statistics – 2051 Low Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
53	0.0056	0.010	98.0	99.0
54	0.0081	0.0082	97.6	98.9
55	0.0067	0.010	98.3	99.0
56	0.0073	0.0090	97.7	98.9

Table D64 – HAM Convergence Statistics – 2051 Low Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
83	0.0046	0.011	98.2	99.2
84	0.0150	0.0049	97.9	99.1
85	0.0047	0.011	98.5	99.4
86	0.0143	0.0054	97.5	99.0

Table D65 – HAM Convergence Statistics – 2051 Low Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
64	0.0058	0.0074	98.0	99.0
65	0.0062	0.0090	97.8	98.9
66	0.0047	0.0069	97.6	99.0
67	0.0048	0.0077	98.0	99.0

- D.5.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

- D.5.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D10 to Figure D12 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.
- D.5.6 Table D66 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D10 – Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS AM Peak



Figure D11 – Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS Inter Peak



Figure D12 – Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS PM Peak



Table D66 – Cross River Traffic Flows – 2051 Low Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	2,803	3,064	261	9%	2,335	2,267	-67	-3%	3,362	2,544	-819	-24%	8,500	7,875	-625	-7%
		IP	3,097	2,685	-412	-13%	1,190	952	-238	-20%	3,515	2,235	-1,280	-36%	7,803	5,873	-1,931	-25%
		PM	4,337	3,956	-381	-9%	1,598	1,220	-378	-24%	2,430	1,410	-1,020	-42%	8,365	6,586	-1,779	-21%
	LTC	AM	0	2,498			0	486			0	1,400			0	4,384		
		IP	0	2,060			0	302			0	1,412			0	3,774		
		PM	0	3,430			0	442			0	1,110			0	4,982		
	Total	AM	2,803	5,562	2,759	98%	2,335	2,754	419	18%	3,362	3,943	581	17%	8,500	12,259	3,759	44%
		IP	3,097	4,745	1,648	53%	1,190	1,253	63	5%	3,515	3,648	132	4%	7,803	9,646	1,843	24%
		PM	4,337	7,386	3,049	70%	1,598	1,662	64	4%	2,430	2,520	90	4%	8,365	11,568	3,203	38%
NB	Dartford	AM	3,301	3,289	-12	0%	1,954	1,492	-462	-24%	2,398	1,465	-933	-39%	7,653	6,246	-1,407	-18%
		IP	2,802	2,782	-20	-1%	1,363	1,145	-218	-16%	3,265	1,964	-1,302	-40%	7,431	5,891	-1,540	-21%
		PM	3,721	3,826	105	3%	1,447	1,197	-250	-17%	2,318	1,470	-848	-37%	7,487	6,493	-993	-13%
	LTC	AM	0	2,875			0	668			0	1,189			0	4,732		
		IP	0	1,723			0	316			0	1,479			0	3,519		
		PM	0	2,034			0	331			0	878			0	3,244		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,301	6,165	2,863	87%	1,954	2,160	206	11%	2,398	2,654	256	11%	7,653	10,979	3,325	43%
		IP	2,802	4,505	1,703	61%	1,363	1,461	98	7%	3,265	3,443	178	5%	7,431	9,409	1,979	27%
		PM	3,721	5,860	2,139	57%	1,447	1,529	81	6%	2,318	2,348	30	1%	7,487	9,737	2,251	30%

D.5.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D67 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D67 – Key Corridor Traffic Flows – 2051 Low Growth DM Vs DS
(Hourly Flows in PCU's)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,878	9,180	0.86	8,938	9,180	0.97	1,060	13%
		IP	7,377	9,180	0.80	8,175	9,180	0.89	798	11%
		PM	7,029	9,180	0.77	7,845	9,180	0.85	816	12%
	M25 J28 to M25 J29 (SB)	AM	7,722	9,115	0.85	7,915	9,180	0.86	193	3%
		IP	7,423	9,115	0.81	7,716	9,180	0.84	293	4%
		PM	7,819	9,115	0.86	8,035	9,180	0.88	216	3%
B	M25 J4 to M25 J3 (NB)	AM	5,665	6,850	0.83	5,879	6,850	0.86	214	4%
		IP	5,608	6,850	0.82	5,847	6,850	0.85	239	4%
		PM	6,123	6,850	0.89	6,309	6,850	0.92	185	3%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	5,559	6,850	0.81	5,779	6,850	0.84	220	4%
		PM	5,404	6,850	0.79	5,692	6,850	0.83	288	5%
C	A13 A126 to A1012 (EB)	AM	5,067	6,312	0.80	4,367	6,291	0.69	-700	-14%
		IP	5,055	6,292	0.80	4,644	6,277	0.74	-411	-8%
		PM	5,608	6,280	0.89	5,614	6,247	0.90	6	0%
	A13 A1012 to A126 (WB)	AM	6,125	6,360	0.96	5,568	6,360	0.88	-557	-9%
		IP	5,686	6,360	0.89	4,800	6,360	0.75	-886	-16%
		PM	5,551	6,360	0.87	4,541	6,360	0.71	-1,010	-18%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,790	6,370	0.75	5,295	6,370	0.83	505	11%
		IP	4,012	6,370	0.63	4,686	6,370	0.74	674	17%
		PM	5,060	6,370	0.79	5,712	6,362	0.90	651	13%
	A13 Manor Way to Orsett Cock (WB)	AM	4,727	6,220	0.76	5,974	6,220	0.96	1,247	26%
		IP	4,267	6,220	0.69	5,428	6,220	0.87	1,161	27%
		PM	4,610	6,220	0.74	5,890	6,220	0.95	1,280	28%
E	A2 A227 to Gravesend East (EB)	AM	6,595	9,208	0.72	5,602	9,195	0.61	-993	-15%
		IP	6,721	9,173	0.73	5,509	9,151	0.60	-1,212	-18%
		PM	8,623	9,174	0.94	7,701	9,152	0.84	-921	-11%
	A2 Gravesend East to A227 (WB)	AM	6,834	7,755	0.88	6,118	7,575	0.81	-716	-10%
		IP	6,297	7,638	0.82	5,396	7,420	0.73	-901	-14%
		PM	6,708	7,454	0.90	6,256	7,326	0.85	-452	-7%
F	M2 J1 to M2 J2 (EB)	AM	5,587	8,502	0.66	6,652	8,448	0.79	1,065	19%
		IP	4,786	8,544	0.56	5,834	8,549	0.68	1,048	22%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
	M2 J2 to M2 J1 (WB)	PM	6,431	8,560	0.75	7,620	8,540	0.89	1,190	18%
		AM	5,173	9,115	0.57	6,953	9,180	0.76	1,780	34%
		IP	4,310	9,115	0.47	5,609	9,180	0.61	1,299	30%
	PM	5,170	9,115	0.57	6,060	9,180	0.66	890	17%	
G	M20 J3 to M20 J4 (EB)	AM	5,993	9,115	0.66	5,399	9,115	0.59	-594	-10%
		IP	5,851	9,115	0.64	5,214	9,115	0.57	-637	-11%
		PM	7,769	9,115	0.85	7,383	9,115	0.81	-387	-5%
	M20 J4 to M20 J3 (WB)	AM	8,335	9,115	0.91	7,412	9,115	0.81	-924	-11%
		IP	5,652	9,115	0.62	4,809	9,115	0.53	-843	-15%
		PM	5,213	9,115	0.57	4,556	9,115	0.50	-657	-13%

DM Vs DS Journey Time Comparisons

- D.5.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.5.9 The link based journey time comparisons for this scenario are presented in Table D68 to Table D70.
- D.5.10 Table D71 to Table D76 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D68 – Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	19.4	72.7	23.5	18.7	75.3	-0.0	-0.7	2.6	-0.1%	-3.6%	+3.6%
	B to D	M25 J29	M25 J2	18.9	19.4	58.5	18.9	14.1	80.5	-0.0	-5.3	22.0	-0.1%	-27.4%	+37.6%
	D to F	M25 J2	M25 J7	37.4	33.0	68.1	37.4	36.1	62.2	0.0	3.1	-5.9	+0.0%	+9.4%	-8.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	28.7	79.1	37.8	28.8	78.7	0.0	0.1	-0.3	+0.0%	+0.4%	-0.4%
	D to B	M25 J2	M25 J29	18.6	23.6	47.4	18.4	15.6	70.8	-0.2	-8.0	23.4	-1.1%	-33.8%	+49.4%
	B to A	M25 J29	M25 J26	23.4	19.9	70.5	23.3	21.5	65.3	-0.0	1.6	-5.2	-0.1%	+7.9%	-7.4%
A13 EB	C to G	M25 J30	A1089	5.0	4.6	65.1	5.2	4.3	71.8	0.2	-0.3	6.6	+3.1%	-6.5%	+10.2%
	G to H	A1089	A130	15.7	12.3	76.8	15.7	13.7	68.9	-0.0	1.4	-8.0	-0.0%	+11.5%	-10.4%
A13 WB	H to G	A130	A1089	15.6	12.4	75.0	15.6	15.7	59.5	0.0	3.3	-15.5	+0.1%	+26.3%	-20.7%
	G to C	A1089	M25 J30	5.3	7.5	42.0	5.6	6.7	49.8	0.3	-0.8	7.8	+5.9%	-10.6%	+18.5%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	9.0	95.0	14.6	8.7	101.1	0.4	-0.3	6.0	+3.0%	-3.2%	+6.4%
	I to J	M2 J1	M2 J4	14.9	8.7	102.9	14.4	8.9	97.7	-0.5	0.2	-5.3	-3.3%	+1.9%	-5.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	9.0	100.7	15.0	9.5	94.7	0.0	0.6	-6.0	+0.0%	+6.3%	-5.9%
	I to D	M2 J1	M25 J2	14.7	17.4	50.9	14.8	12.7	69.6	0.1	-4.6	18.7	+0.4%	-26.6%	+36.8%
M20 EB	E to K	M25 J3	M20 J8	35.2	25.5	82.7	35.2	24.8	85.1	0.0	-0.7	2.4	+0.0%	-2.9%	+3.0%
M20 WB	K to E	M20 J8	M25 J3	35.4	24.2	87.6	35.4	22.7	93.5	0.0	-1.5	5.9	+0.0%	-6.3%	+6.8%

Table D69 – Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.3	81.4	23.5	16.8	84.0	-0.0	-0.6	2.6	-0.1%	-3.3%	+3.2%
	B to D	M25 J29	M25 J2	18.9	14.4	78.8	18.9	12.5	90.9	-0.0	-1.9	12.1	-0.1%	-13.3%	+15.3%
	D to F	M25 J2	M25 J7	37.4	25.0	89.7	37.4	25.3	88.6	0.0	0.3	-1.1	+0.0%	+1.2%	-1.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	28.4	80.0	37.8	28.8	78.8	0.0	0.4	-1.2	+0.0%	+1.5%	-1.5%
	D to B	M25 J2	M25 J29	18.6	21.4	52.2	18.4	14.8	75.0	-0.2	-6.7	22.8	-1.1%	-31.1%	+43.6%
	B to A	M25 J29	M25 J26	23.4	17.2	81.4	23.3	17.8	78.6	-0.0	0.6	-2.8	-0.1%	+3.5%	-3.4%
A13 EB	C to G	M25 J30	A1089	5.0	4.8	62.7	5.2	4.7	66.9	0.2	-0.2	4.2	+3.1%	-3.5%	+6.8%
	G to H	A1089	A130	15.7	11.0	85.6	15.7	11.8	80.2	-0.0	0.7	-5.4	-0.0%	+6.7%	-6.3%
A13 WB	H to G	A130	A1089	15.6	10.9	85.6	15.6	12.4	75.1	0.0	1.5	-10.5	+0.1%	+14.1%	-12.2%
	G to C	A1089	M25 J30	5.3	5.9	53.7	5.6	5.5	60.6	0.3	-0.4	6.9	+5.9%	-6.2%	+12.9%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	9.0	94.7	14.6	8.6	102.1	0.4	-0.4	7.4	+3.0%	-4.5%	+7.8%
	I to J	M2 J1	M2 J4	14.9	8.5	105.5	14.4	8.4	103.5	-0.5	-0.1	-2.0	-3.3%	-1.4%	-1.9%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.5	106.2	15.0	8.7	103.8	0.0	0.2	-2.4	+0.0%	+2.4%	-2.3%
	I to D	M2 J1	M25 J2	14.7	11.5	76.9	14.8	9.2	96.7	0.1	-2.3	19.8	+0.4%	-20.2%	+25.7%
M20 EB	E to K	M25 J3	M20 J8	35.2	23.8	88.6	35.2	23.0	91.7	0.0	-0.8	3.1	+0.0%	-3.4%	+3.5%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.4	104.2	35.4	20.1	105.9	0.0	-0.3	1.6	+0.0%	-1.6%	+1.6%

Table D70 – Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (LM6)			Do-Something (L8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	19.1	73.9	23.5	19.2	73.4	-0.0	0.1	-0.4	-0.1%	+0.4%	-0.6%
	B to D	M25 J29	M25 J2	18.9	16.4	69.1	18.9	12.8	88.2	-0.0	-3.6	19.1	-0.1%	-21.7%	+27.6%
	D to F	M25 J2	M25 J7	37.4	23.4	95.9	37.4	23.9	93.9	0.0	0.5	-1.9	+0.0%	+2.1%	-2.0%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	31.1	73.0	37.8	31.7	71.7	0.0	0.6	-1.3	+0.0%	+1.8%	-1.8%
	D to B	M25 J2	M25 J29	18.6	25.2	44.4	18.4	16.1	68.7	-0.2	-9.1	24.4	-1.1%	-36.2%	+54.9%
	B to A	M25 J29	M25 J26	23.4	16.0	87.4	23.3	16.4	85.4	-0.0	0.4	-2.0	-0.1%	+2.3%	-2.3%
A13 EB	C to G	M25 J30	A1089	5.0	7.1	42.3	5.2	5.6	55.7	0.2	-1.6	13.4	+3.1%	-21.7%	+31.7%
	G to H	A1089	A130	15.7	11.9	79.4	15.7	13.9	67.8	-0.0	2.0	-11.6	-0.0%	+17.1%	-14.7%
A13 WB	H to G	A130	A1089	15.6	11.4	82.1	15.6	13.9	67.4	0.0	2.5	-14.6	+0.1%	+21.8%	-17.8%
	G to C	A1089	M25 J30	5.3	5.9	54.0	5.6	5.2	64.3	0.3	-0.6	10.3	+5.9%	-11.1%	+19.1%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	13.4	63.4	14.6	10.0	87.4	0.4	-3.4	24.1	+3.0%	-25.3%	+38.0%
	I to J	M2 J1	M2 J4	14.9	9.4	94.9	14.4	11.6	74.6	-0.5	2.2	-20.3	-3.3%	+23.0%	-21.4%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.8	102.6	15.0	9.0	99.9	0.0	0.2	-2.7	+0.0%	+2.7%	-2.6%
	I to D	M2 J1	M25 J2	14.7	13.6	64.9	14.8	10.8	82.2	0.1	-2.8	17.3	+0.4%	-20.7%	+26.6%
M20 EB	E to K	M25 J3	M20 J8	35.2	29.9	70.6	35.2	31.1	67.8	0.0	1.2	-2.8	+0.0%	+4.1%	-4.0%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.4	104.3	35.4	20.1	105.7	0.0	-0.3	1.4	+0.0%	-1.3%	+1.3%

Table D71 – Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.0	65.0	57.2	62.3	62.8	59.5	0.2	-2.2	2.3	+0.4%	-3.4%	+3.9%
1 to 6	Cheshunt	Godstone	91.9	90.7	60.8	92.0	89.2	61.9	0.1	-1.6	1.1	+0.1%	-1.7%	+1.9%
1 to 7	Cheshunt	Southfleet	60.9	60.8	60.1	61.1	56.7	64.6	0.2	-4.1	4.5	+0.3%	-6.7%	+7.5%
1 to 8	Cheshunt	Maidstone	88.3	79.4	66.8	88.4	74.2	71.5	0.1	-5.1	4.7	+0.1%	-6.5%	+7.0%
1 to 9	Cheshunt	Rochester	76.6	80.8	56.9	71.1	72.0	59.3	-5.5	-8.9	2.4	-7.1%	-11.0%	+4.3%
1 to 10	Cheshunt	Rainham	92.6	84.2	66.0	88.0	74.6	70.8	-4.5	-9.6	4.8	-4.9%	-11.4%	+7.3%
2 to 5	Romford	Bexley	31.8	51.9	36.7	32.0	49.3	38.9	0.2	-2.7	2.2	+0.5%	-5.2%	+6.0%
2 to 6	Romford	Godstone	61.7	77.7	47.6	61.7	75.6	48.9	0.0	-2.0	1.3	+0.0%	-2.6%	+2.8%
2 to 7	Romford	Southfleet	30.7	47.7	38.6	30.8	43.2	42.8	0.1	-4.6	4.2	+0.4%	-9.5%	+11.0%
2 to 8	Romford	Maidstone	58.1	66.3	52.6	58.1	60.7	57.5	0.0	-5.6	4.9	+0.0%	-8.5%	+9.3%
2 to 9	Romford	Rochester	46.5	67.7	41.2	46.9	58.1	48.4	0.4	-9.7	7.2	+0.8%	-14.3%	+17.6%
2 to 10	Romford	Rainham	62.4	71.1	52.6	63.8	60.7	63.0	1.4	-10.4	10.4	+2.3%	-14.6%	+19.8%
3 to 5	Brentwood	Bexley	33.3	40.1	49.8	33.5	37.2	54.0	0.1	-3.0	4.2	+0.4%	-7.3%	+8.4%
3 to 6	Brentwood	Godstone	63.2	65.9	57.6	63.2	63.6	59.6	-0.0	-2.3	2.1	-0.0%	-3.5%	+3.6%
3 to 7	Brentwood	Southfleet	32.3	35.9	53.9	32.3	31.1	62.3	0.1	-4.8	8.5	+0.2%	-13.4%	+15.7%
3 to 8	Brentwood	Maidstone	59.6	54.5	65.7	59.6	48.6	73.6	-0.0	-5.9	7.9	-0.0%	-10.8%	+12.1%
3 to 9	Brentwood	Rochester	47.9	55.9	51.4	42.4	46.4	54.8	-5.6	-9.6	3.4	-11.6%	-17.1%	+6.6%
3 to 10	Brentwood	Rainham	63.9	59.3	64.6	59.3	49.0	72.5	-4.6	-10.3	7.9	-7.3%	-17.4%	+12.2%
4 to 5	Basildon	Bexley	39.1	49.6	47.3	39.3	44.7	52.7	0.1	-4.9	5.4	+0.3%	-10.0%	+11.4%
4 to 6	Basildon	Godstone	69.0	75.3	55.0	69.0	71.0	58.3	-0.0	-4.3	3.3	-0.0%	-5.7%	+6.0%
4 to 7	Basildon	Southfleet	38.1	45.4	50.3	33.4	30.8	65.1	-4.7	-14.6	14.8	-12.2%	-32.2%	+29.4%
4 to 8	Basildon	Maidstone	65.4	64.0	61.4	47.8	52.3	54.9	-17.6	-11.7	-6.5	-26.9%	-18.3%	-10.6%
4 to 9	Basildon	Rochester	53.7	65.4	49.3	35.6	45.4	47.1	-18.1	-20.0	-2.2	-33.7%	-30.6%	-4.5%
4 to 10	Basildon	Rainham	69.7	68.8	60.8	52.5	48.1	65.6	-17.2	-20.7	4.8	-24.6%	-30.1%	+7.9%

Table D72 – Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.8	52.6	70.6	61.7	51.6	71.8	-0.1	-1.0	1.2	-0.2%	-1.8%	+1.7%
1 to 6	Cheshunt	Godstone	91.4	71.2	77.0	91.3	70.0	78.2	-0.1	-1.2	1.2	-0.1%	-1.6%	+1.5%
1 to 7	Cheshunt	Southfleet	60.8	51.0	71.5	60.7	49.7	73.4	-0.0	-1.3	1.9	-0.0%	-2.6%	+2.7%
1 to 8	Cheshunt	Maidstone	88.1	67.1	78.8	82.4	65.2	75.9	-5.7	-1.9	-2.9	-6.5%	-2.8%	-3.7%
1 to 9	Cheshunt	Rochester	78.3	67.0	70.1	74.2	61.3	72.6	-4.2	-5.7	2.5	-5.3%	-8.5%	+3.5%
1 to 10	Cheshunt	Rainham	91.5	72.1	76.1	86.8	65.7	79.3	-4.7	-6.5	3.2	-5.2%	-9.0%	+4.2%
2 to 5	Romford	Bexley	37.9	42.0	54.1	35.4	40.1	52.9	-2.5	-1.9	-1.2	-6.6%	-4.5%	-2.2%
2 to 6	Romford	Godstone	67.4	60.6	66.7	64.9	58.5	66.5	-2.5	-2.1	-0.2	-3.7%	-3.5%	-0.2%
2 to 7	Romford	Southfleet	36.8	40.4	54.6	34.4	38.1	54.1	-2.4	-2.3	-0.5	-6.5%	-5.6%	-0.9%
2 to 8	Romford	Maidstone	64.1	56.5	68.1	56.1	53.7	62.6	-8.1	-2.8	-5.4	-12.6%	-5.0%	-8.0%
2 to 9	Romford	Rochester	54.4	56.5	57.8	47.8	49.8	57.6	-6.6	-6.7	-0.2	-12.1%	-11.8%	-0.4%
2 to 10	Romford	Rainham	67.5	61.6	65.8	60.4	54.1	67.0	-7.1	-7.4	1.1	-10.6%	-12.1%	+1.7%
3 to 5	Brentwood	Bexley	32.5	32.6	59.7	32.5	30.9	63.0	-0.0	-1.7	3.3	-0.1%	-5.3%	+5.5%
3 to 6	Brentwood	Godstone	62.1	51.3	72.6	62.0	49.4	75.4	-0.0	-1.9	2.8	-0.1%	-3.8%	+3.9%
3 to 7	Brentwood	Southfleet	31.4	31.1	60.6	31.5	29.0	65.2	0.1	-2.1	4.5	+0.2%	-6.8%	+7.5%
3 to 8	Brentwood	Maidstone	58.8	47.2	74.7	53.2	44.5	71.6	-5.6	-2.7	-3.1	-9.6%	-5.7%	-4.2%
3 to 9	Brentwood	Rochester	47.4	47.1	60.4	41.6	40.9	61.0	-5.8	-6.1	0.6	-12.2%	-13.0%	+0.9%
3 to 10	Brentwood	Rainham	62.2	52.2	71.4	57.5	45.0	76.7	-4.7	-7.3	5.3	-7.5%	-13.9%	+7.4%
4 to 5	Basildon	Bexley	39.1	36.5	64.3	39.1	34.5	67.9	-0.0	-2.0	3.6	-0.1%	-5.4%	+5.6%
4 to 6	Basildon	Godstone	68.7	55.2	74.7	68.7	53.0	77.8	-0.0	-2.2	3.0	-0.1%	-4.0%	+4.1%
4 to 7	Basildon	Southfleet	38.1	35.0	65.3	33.4	27.1	73.9	-4.7	-7.8	8.5	-12.3%	-22.4%	+13.1%
4 to 8	Basildon	Maidstone	65.4	51.1	76.9	47.3	42.4	67.0	-18.1	-8.7	-9.9	-27.7%	-17.0%	-12.9%
4 to 9	Basildon	Rochester	55.7	51.0	65.5	39.0	38.5	60.9	-16.6	-12.5	-4.6	-29.9%	-24.6%	-7.1%
4 to 10	Basildon	Rainham	68.8	56.1	73.6	51.7	42.8	72.4	-17.2	-13.3	-1.2	-25.0%	-23.7%	-1.7%

Table D73 – Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.1	61.3	60.7	62.2	60.1	62.1	0.2	-1.2	1.4	+0.3%	-2.0%	+2.3%
1 to 6	Cheshunt	Godstone	91.9	79.3	69.5	92.0	77.5	71.3	0.1	-1.8	1.7	+0.2%	-2.3%	+2.5%
1 to 7	Cheshunt	Southfleet	61.0	58.9	62.1	61.1	57.3	64.0	0.1	-1.6	1.9	+0.2%	-2.8%	+3.1%
1 to 8	Cheshunt	Maidstone	88.3	80.4	65.9	82.9	74.6	66.7	-5.4	-5.9	0.8	-6.2%	-7.3%	+1.2%
1 to 9	Cheshunt	Rochester	77.8	83.8	55.7	71.3	75.2	56.8	-6.5	-8.6	1.2	-8.3%	-10.2%	+2.1%
1 to 10	Cheshunt	Rainham	92.6	93.1	59.7	88.1	84.7	62.4	-4.5	-8.4	2.7	-4.8%	-9.0%	+4.5%
2 to 5	Romford	Bexley	37.9	47.6	47.8	35.4	45.3	46.9	-2.5	-2.3	-0.9	-6.5%	-4.8%	-1.8%
2 to 6	Romford	Godstone	67.7	65.5	62.0	65.3	62.6	62.5	-2.5	-2.9	0.5	-3.7%	-4.4%	+0.8%
2 to 7	Romford	Southfleet	36.8	45.1	48.9	34.3	42.4	48.6	-2.5	-2.7	-0.3	-6.7%	-6.1%	-0.7%
2 to 8	Romford	Maidstone	64.2	66.7	57.7	56.1	59.7	56.4	-8.1	-7.0	-1.4	-12.6%	-10.4%	-2.4%
2 to 9	Romford	Rochester	53.6	70.0	45.9	44.5	60.4	44.2	-9.1	-9.7	-1.7	-17.0%	-13.8%	-3.7%
2 to 10	Romford	Rainham	68.4	79.3	51.8	61.3	69.9	52.6	-7.1	-9.4	0.9	-10.4%	-11.9%	+1.7%
3 to 5	Brentwood	Bexley	33.3	37.9	52.8	33.3	36.0	55.6	-0.0	-1.9	2.8	-0.0%	-5.1%	+5.3%
3 to 6	Brentwood	Godstone	63.2	55.8	67.9	63.2	53.3	71.1	-0.0	-2.5	3.2	-0.0%	-4.5%	+4.7%
3 to 7	Brentwood	Southfleet	32.3	35.4	54.6	32.2	33.1	58.5	-0.0	-2.4	3.9	-0.0%	-6.7%	+7.1%
3 to 8	Brentwood	Maidstone	59.6	57.0	62.8	54.0	50.4	64.3	-5.6	-6.6	1.5	-9.4%	-11.6%	+2.5%
3 to 9	Brentwood	Rochester	46.9	60.8	46.3	42.2	51.1	49.6	-4.7	-9.7	3.3	-10.0%	-16.0%	+7.2%
3 to 10	Brentwood	Rainham	63.9	69.6	55.1	59.2	60.6	58.7	-4.7	-9.1	3.6	-7.3%	-13.0%	+6.6%
4 to 5	Basildon	Bexley	36.6	42.9	51.2	36.6	39.9	55.1	0.0	-3.1	4.0	+0.0%	-7.2%	+7.8%
4 to 6	Basildon	Godstone	66.5	60.9	65.5	66.5	57.2	69.7	-0.0	-3.7	4.2	-0.0%	-6.1%	+6.4%
4 to 7	Basildon	Southfleet	35.5	40.5	52.6	33.4	29.6	67.7	-2.1	-10.9	15.1	-5.9%	-26.9%	+28.7%
4 to 8	Basildon	Maidstone	62.9	62.0	60.8	47.3	46.6	60.9	-15.6	-15.4	0.1	-24.8%	-24.9%	+0.1%
4 to 9	Basildon	Rochester	52.3	65.4	48.0	35.7	47.3	45.3	-16.6	-18.1	-2.7	-31.8%	-27.7%	-5.6%
4 to 10	Basildon	Rainham	67.2	74.7	53.9	52.5	56.8	55.4	-14.6	-17.9	1.5	-21.8%	-24.0%	+2.8%

Table D74 – Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	61.8	59.8	61.6	58.6	63.0	-0.0	-3.2	3.2	-0.1%	-5.1%	+5.4%
5 to 2	Bexley	Romford	33.4	45.7	43.9	33.4	40.6	49.4	0.0	-5.0	5.5	+0.0%	-11.1%	+12.5%
5 to 3	Bexley	Brentwood	34.4	44.5	46.4	34.3	39.0	52.7	-0.2	-5.5	6.2	-0.5%	-12.3%	+13.5%
5 to 4	Bexley	Basildon	36.5	41.9	52.2	36.5	36.8	59.5	0.0	-5.1	7.2	+0.0%	-12.2%	+13.8%
6 to 1	Godstone	Cheshunt	91.2	82.9	66.0	91.2	79.8	68.6	-0.0	-3.1	2.5	-0.0%	-3.7%	+3.8%
6 to 2	Godstone	Romford	63.0	66.8	56.6	63.0	61.8	61.2	0.0	-5.0	4.6	+0.0%	-7.4%	+8.0%
6 to 3	Godstone	Brentwood	64.0	65.6	58.6	63.9	60.2	63.6	-0.2	-5.4	5.1	-0.3%	-8.2%	+8.6%
6 to 4	Godstone	Basildon	66.1	63.0	62.9	66.1	58.0	68.4	-0.0	-5.0	5.4	-0.0%	-8.0%	+8.6%
7 to 1	Southfleet	Cheshunt	60.7	62.1	58.6	60.6	56.9	63.9	-0.0	-5.3	5.4	-0.1%	-8.4%	+9.1%
7 to 2	Southfleet	Romford	32.5	46.0	42.3	32.5	38.9	50.1	0.0	-7.1	7.7	+0.0%	-15.5%	+18.3%
7 to 3	Southfleet	Brentwood	33.5	44.8	44.9	33.3	37.3	53.6	-0.2	-7.5	8.7	-0.5%	-16.7%	+19.4%
7 to 4	Southfleet	Basildon	35.5	42.3	50.4	35.5	29.2	72.8	-0.1	-13.0	22.4	-0.2%	-30.8%	+44.3%
8 to 1	Maidstone	Cheshunt	88.1	85.8	61.6	88.1	80.2	65.9	-0.1	-5.6	4.3	-0.1%	-6.5%	+6.9%
8 to 2	Maidstone	Romford	59.9	69.7	51.6	59.9	62.2	57.8	0.0	-7.5	6.2	+0.0%	-10.8%	+12.1%
8 to 3	Maidstone	Brentwood	61.0	68.5	53.4	55.1	61.5	53.8	-5.9	-7.0	0.3	-9.6%	-10.2%	+0.6%
8 to 4	Maidstone	Basildon	63.0	66.0	57.3	50.7	52.7	57.7	-12.4	-13.3	0.4	-19.6%	-20.2%	+0.7%
9 to 1	Rochester	Cheshunt	77.0	88.7	52.1	71.4	73.8	58.1	-5.6	-15.0	6.0	-7.3%	-16.9%	+11.5%
9 to 2	Rochester	Romford	48.8	72.6	40.3	45.4	56.9	47.8	-3.5	-15.7	7.5	-7.1%	-21.6%	+18.6%
9 to 3	Rochester	Brentwood	49.9	71.4	41.9	42.7	53.4	48.0	-7.2	-18.1	6.1	-14.4%	-25.3%	+14.6%
9 to 4	Rochester	Basildon	51.9	68.9	45.2	38.2	44.5	51.6	-13.7	-24.4	6.4	-26.3%	-35.4%	+14.1%
10 to 1	Rainham	Cheshunt	92.6	95.6	58.1	88.5	80.3	66.1	-4.0	-15.2	8.0	-4.4%	-15.9%	+13.8%
10 to 2	Rainham	Romford	64.4	79.5	48.6	62.5	63.5	59.1	-1.9	-16.0	10.5	-2.9%	-20.1%	+21.5%
10 to 3	Rainham	Brentwood	65.4	78.3	50.1	59.8	59.9	59.9	-5.6	-18.3	9.7	-8.6%	-23.4%	+19.4%
10 to 4	Rainham	Basildon	67.5	75.7	53.5	55.3	51.0	65.1	-12.1	-24.7	11.6	-18.0%	-32.6%	+21.7%

Table D75 – Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	56.8	65.0	61.5	53.3	69.3	-0.0	-3.6	4.3	-0.1%	-6.3%	+6.6%
5 to 2	Bexley	Romford	35.7	41.9	51.1	35.5	37.1	57.4	-0.2	-4.8	6.3	-0.5%	-11.4%	+12.2%
5 to 3	Bexley	Brentwood	32.3	39.1	49.6	32.1	33.8	57.0	-0.2	-5.3	7.4	-0.6%	-13.5%	+14.9%
5 to 4	Bexley	Basildon	36.5	40.8	53.6	36.5	35.0	62.6	-0.0	-5.9	9.0	-0.0%	-14.3%	+16.7%
6 to 1	Godstone	Cheshunt	91.5	77.2	71.1	91.4	74.1	74.1	-0.0	-3.1	3.0	-0.1%	-4.0%	+4.1%
6 to 2	Godstone	Romford	65.6	62.3	63.2	65.4	58.0	67.7	-0.2	-4.3	4.5	-0.3%	-6.9%	+7.1%
6 to 3	Godstone	Brentwood	62.2	59.5	62.7	62.0	54.6	68.1	-0.2	-4.8	5.3	-0.3%	-8.1%	+8.5%
6 to 4	Godstone	Basildon	66.4	61.2	65.0	66.4	55.8	71.3	-0.0	-5.4	6.3	-0.0%	-8.8%	+9.7%
7 to 1	Southfleet	Cheshunt	60.7	55.7	65.4	60.6	51.5	70.6	-0.0	-4.2	5.2	-0.1%	-7.5%	+8.0%
7 to 2	Southfleet	Romford	34.7	40.7	51.2	34.6	35.4	58.6	-0.2	-5.4	7.4	-0.5%	-13.2%	+14.5%
7 to 3	Southfleet	Brentwood	31.3	37.9	49.6	31.1	32.0	58.3	-0.2	-5.9	8.7	-0.6%	-15.5%	+17.6%
7 to 4	Southfleet	Basildon	35.5	39.7	53.7	35.5	27.6	77.2	-0.1	-12.1	23.5	-0.2%	-30.5%	+43.7%
8 to 1	Maidstone	Cheshunt	88.1	78.4	67.4	83.8	73.9	68.1	-4.3	-4.5	0.6	-4.8%	-5.7%	+0.9%
8 to 2	Maidstone	Romford	62.2	63.5	58.8	57.8	57.7	60.1	-4.4	-5.8	1.3	-7.1%	-9.2%	+2.3%
8 to 3	Maidstone	Brentwood	58.8	60.7	58.2	55.0	52.5	62.8	-3.8	-8.2	4.7	-6.5%	-13.5%	+8.0%
8 to 4	Maidstone	Basildon	63.0	62.4	60.6	50.7	47.9	63.5	-12.4	-14.6	3.0	-19.6%	-23.3%	+4.9%
9 to 1	Rochester	Cheshunt	77.0	76.4	60.5	73.0	65.5	66.8	-4.0	-10.8	6.3	-5.2%	-14.2%	+10.5%
9 to 2	Rochester	Romford	51.1	61.4	49.9	46.9	49.3	57.1	-4.2	-12.2	7.2	-8.2%	-19.8%	+14.5%
9 to 3	Rochester	Brentwood	47.7	58.6	48.8	44.1	44.1	60.0	-3.6	-14.5	11.2	-7.5%	-24.8%	+23.0%
9 to 4	Rochester	Basildon	51.9	60.4	51.6	39.8	39.5	60.5	-12.1	-20.9	9.0	-23.3%	-34.7%	+17.4%
10 to 1	Rainham	Cheshunt	91.7	79.6	69.1	87.6	68.4	76.8	-4.0	-11.1	7.7	-4.4%	-14.0%	+11.2%
10 to 2	Rainham	Romford	65.8	64.6	61.0	61.6	52.2	70.8	-4.2	-12.5	9.8	-6.3%	-19.3%	+16.0%
10 to 3	Rainham	Brentwood	62.4	61.8	60.5	58.8	47.0	75.0	-3.6	-14.8	14.5	-5.7%	-24.0%	+24.0%
10 to 4	Rainham	Basildon	66.6	63.6	62.8	54.5	42.4	77.1	-12.1	-21.2	14.3	-18.2%	-33.4%	+22.8%

Table D76 – Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	63.7	61.7	61.9	61.4	55.3	66.6	-2.2	-6.3	4.7	-3.5%	-10.3%	+7.5%
5 to 2	Bexley	Romford	39.3	48.7	48.4	37.0	41.3	53.7	-2.3	-7.4	5.3	-5.8%	-15.1%	+11.0%
5 to 3	Bexley	Brentwood	34.6	49.4	42.0	34.3	38.2	53.8	-0.3	-11.2	11.8	-1.0%	-22.7%	+28.1%
5 to 4	Bexley	Basildon	38.7	51.0	45.5	36.5	42.8	51.2	-2.2	-8.3	5.7	-5.6%	-16.2%	+12.6%
6 to 1	Godstone	Cheshunt	91.2	79.8	68.5	91.2	77.5	70.6	-0.0	-2.4	2.1	-0.0%	-3.0%	+3.0%
6 to 2	Godstone	Romford	66.7	66.9	59.8	66.7	63.5	63.0	-0.1	-3.4	3.1	-0.1%	-5.1%	+5.2%
6 to 3	Godstone	Brentwood	62.0	67.6	55.0	63.9	60.4	63.4	1.8	-7.3	8.4	+3.0%	-10.7%	+15.3%
6 to 4	Godstone	Basildon	66.1	69.2	57.3	66.1	64.9	61.1	-0.0	-4.3	3.8	-0.0%	-6.2%	+6.6%
7 to 1	Southfleet	Cheshunt	60.7	55.9	65.2	60.5	54.5	66.5	-0.2	-1.3	1.4	-0.3%	-2.4%	+2.1%
7 to 2	Southfleet	Romford	36.2	42.9	50.6	36.2	38.1	57.0	0.0	-4.8	6.4	+0.1%	-11.2%	+12.7%
7 to 3	Southfleet	Brentwood	31.5	43.7	43.3	33.3	35.0	57.1	1.8	-8.6	13.8	+5.8%	-19.8%	+31.9%
7 to 4	Southfleet	Basildon	35.5	45.2	47.1	36.0	32.1	67.4	0.5	-13.2	20.3	+1.4%	-29.1%	+43.0%
8 to 1	Maidstone	Cheshunt	88.1	74.7	70.8	88.0	73.2	72.1	-0.2	-1.5	1.3	-0.2%	-2.0%	+1.8%
8 to 2	Maidstone	Romford	63.7	61.8	61.8	63.6	56.8	67.1	-0.1	-4.9	5.3	-0.2%	-8.0%	+8.5%
8 to 3	Maidstone	Brentwood	59.0	62.5	56.6	60.8	53.7	67.9	1.8	-8.8	11.3	+3.1%	-14.1%	+20.0%
8 to 4	Maidstone	Basildon	63.0	64.1	59.0	51.9	53.5	58.2	-11.1	-10.5	-0.8	-17.6%	-16.5%	-1.4%
9 to 1	Rochester	Cheshunt	75.3	85.9	52.6	71.3	73.0	58.6	-4.0	-12.9	5.9	-5.4%	-15.0%	+11.3%
9 to 2	Rochester	Romford	51.0	72.9	41.9	48.0	58.9	48.9	-3.0	-14.1	7.0	-5.8%	-19.3%	+16.7%
9 to 3	Rochester	Brentwood	46.3	73.7	37.7	42.7	54.2	47.2	-3.6	-19.4	9.5	-7.8%	-26.4%	+25.2%
9 to 4	Rochester	Basildon	50.3	75.2	40.1	38.2	51.3	44.7	-12.1	-23.9	4.5	-24.1%	-31.8%	+11.3%
10 to 1	Rainham	Cheshunt	92.6	83.1	66.8	88.5	69.9	76.0	-4.0	-13.2	9.2	-4.3%	-15.9%	+13.8%
10 to 2	Rainham	Romford	68.1	70.2	58.2	64.1	55.9	68.8	-4.0	-14.3	10.5	-5.9%	-20.3%	+18.1%
10 to 3	Rainham	Brentwood	63.4	70.9	53.6	59.8	51.1	70.1	-3.6	-19.8	16.5	-5.6%	-27.9%	+30.8%
10 to 4	Rainham	Basildon	67.4	72.5	55.8	55.3	48.2	68.9	-12.1	-24.3	13.0	-17.9%	-33.5%	+23.4%

D.6 LTAM 2026 High Growth – Outputs to Economic Assessment

D.6.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2026 high growth forecast.

Matrix Total Comparison

D.6.2 Table D77 and Table D78 provide a comparison of the VDM output core scenario matrices and the 2026 high growth matrices for all movements and relevant movements respectively.

Table D77 – Matrix Total Comparison – 2026 High Growth All Movements (PCU's)

Userclass	Time Period	All Movements								
		Core Scenario VDM Output Matrix (2026 DM)	High Growth Scenario (2026 DM)				Core Scenario VDM Output Matrix (2026 DS)	High Growth Scenario (2026 DS)		
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core
Car Employers Business	AM	477,510	512,828	35,319	7.4%	477,622	512,940	35,319	7.4%	
	IP	415,775	446,495	30,720	7.4%	415,757	446,477	30,720	7.4%	
	PM	571,010	613,252	42,243	7.4%	571,054	613,296	42,243	7.4%	
	OP	167,610	179,986	12,376	7.4%	167,597	179,973	12,376	7.4%	
Car Commute Low Income	AM	439,637	472,586	32,949	7.5%	439,630	472,579	32,949	7.5%	
	IP	200,245	215,208	14,963	7.5%	200,257	215,220	14,963	7.5%	
	PM	503,840	541,525	37,685	7.5%	503,862	541,546	37,685	7.5%	
	OP	80,670	86,701	6,031	7.5%	80,670	86,701	6,031	7.5%	
Car Commute Medium Income	AM	890,638	957,360	66,722	7.5%	890,736	957,458	66,722	7.5%	
	IP	307,816	330,805	22,989	7.5%	307,809	330,797	22,989	7.5%	
	PM	967,470	1,039,764	72,294	7.5%	967,524	1,039,818	72,294	7.5%	
	OP	124,034	133,302	9,268	7.5%	124,024	133,292	9,268	7.5%	
Car Commute High Income	AM	758,503	815,311	56,807	7.5%	758,449	815,256	56,807	7.5%	
	IP	219,179	235,565	16,386	7.5%	219,193	235,579	16,386	7.5%	
	PM	782,467	840,985	58,518	7.5%	782,612	841,130	58,518	7.5%	
	OP	88,262	94,863	6,601	7.5%	88,259	94,859	6,601	7.5%	
Car Other Low Income	AM	718,997	770,441	51,444	7.2%	719,224	770,668	51,444	7.2%	
	IP	1,276,642	1,367,986	91,344	7.2%	1,276,572	1,367,916	91,344	7.2%	
	PM	1,243,820	1,332,873	89,054	7.2%	1,243,856	1,332,909	89,054	7.2%	
	OP	515,691	552,508	36,817	7.1%	515,663	552,480	36,817	7.1%	
Car Other Medium Income	AM	766,049	820,925	54,876	7.2%	766,198	821,075	54,876	7.2%	
	IP	1,019,927	1,092,893	72,966	7.2%	1,019,921	1,092,887	72,966	7.2%	
	PM	1,252,031	1,341,684	89,653	7.2%	1,252,037	1,341,689	89,653	7.2%	
	OP	411,986	441,382	29,396	7.1%	411,964	441,360	29,396	7.1%	
Car Other High Income	AM	612,598	656,509	43,911	7.2%	612,760	656,671	43,911	7.2%	
	IP	685,266	734,248	48,983	7.1%	685,236	734,218	48,983	7.1%	
	PM	948,480	1,016,357	67,877	7.2%	948,648	1,016,525	67,877	7.2%	
	OP	276,983	296,708	19,725	7.1%	276,939	296,665	19,725	7.1%	
Car Total	AM	4,663,931	5,005,960	342,029	7.3%	4,664,619	5,006,648	342,029	7.3%	
	IP	4,124,850	4,423,199	298,350	7.2%	4,124,744	4,423,094	298,350	7.2%	
	PM	6,269,117	6,726,440	457,323	7.3%	6,269,591	6,726,914	457,323	7.3%	
	OP	1,665,235	1,785,449	120,214	7.2%	1,665,115	1,785,329	120,214	7.2%	
LGV	AM	950,818	1,008,391	57,574	6.1%	950,818	1,008,391	57,574	6.1%	
	IP	820,243	869,837	49,594	6.0%	820,243	869,837	49,594	6.0%	
	PM	685,879	727,377	41,498	6.1%	685,879	727,377	41,498	6.1%	
	OP	329,431	349,431	20,000	6.1%	329,431	349,431	20,000	6.1%	
HGV	AM	410,596	440,224	29,627	7.2%	410,596	440,224	29,627	7.2%	
	IP	408,518	437,980	29,462	7.2%	408,518	437,980	29,462	7.2%	
	PM	257,203	275,748	18,544	7.2%	257,203	275,748	18,544	7.2%	
	OP	162,992	174,836	11,843	7.3%	162,992	174,836	11,843	7.3%	

Table D78 – Matrix Total Comparison – 2026 High Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2026 DM)	High Growth Scenario (2026 DM)			Core Scenario VDM Output Matrix (2026 DS)	High Growth Scenario (2026 DS)		
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	39,443	42,368	2,924	7.4%	39,576	42,500	2,924	7.4%
	IP	27,509	29,512	2,003	7.3%	27,506	29,509	2,003	7.3%
	PM	39,337	42,220	2,883	7.3%	39,402	42,285	2,883	7.3%
	OP	10,914	11,706	792	7.3%	10,899	11,691	792	7.3%
Car Commute Low Income	AM	31,431	33,794	2,363	7.5%	31,419	33,782	2,363	7.5%
	IP	17,564	18,871	1,307	7.4%	17,577	18,884	1,307	7.4%
	PM	33,179	35,655	2,476	7.5%	33,198	35,674	2,476	7.5%
	OP	6,929	7,449	520	7.5%	6,929	7,449	520	7.5%
Car Commute Medium Income	AM	67,369	72,476	5,107	7.6%	67,464	72,571	5,107	7.6%
	IP	26,817	28,807	1,990	7.4%	26,810	28,800	1,990	7.4%
	PM	65,892	70,833	4,942	7.5%	65,950	70,892	4,942	7.5%
	OP	10,648	11,444	796	7.5%	10,638	11,434	796	7.5%
Car Commute High Income	AM	64,358	69,229	4,871	7.6%	64,304	69,174	4,871	7.6%
	IP	22,865	24,562	1,697	7.4%	22,882	24,579	1,697	7.4%
	PM	64,247	69,063	4,816	7.5%	64,397	69,214	4,816	7.5%
	OP	9,103	9,781	678	7.4%	9,099	9,777	678	7.4%
Car Other Low Income	AM	72,708	77,891	5,183	7.1%	73,004	78,188	5,183	7.1%
	IP	101,910	109,071	7,161	7.0%	101,935	109,096	7,161	7.0%
	PM	107,262	114,853	7,591	7.1%	107,378	114,969	7,591	7.1%
	OP	41,340	44,188	2,848	6.9%	41,296	44,144	2,848	6.9%
Car Other Medium Income	AM	80,261	85,986	5,725	7.1%	80,479	86,204	5,725	7.1%
	IP	94,994	101,661	6,667	7.0%	95,070	101,737	6,667	7.0%
	PM	119,718	128,180	8,462	7.1%	119,807	128,270	8,462	7.1%
	OP	38,534	41,183	2,650	6.9%	38,500	41,149	2,650	6.9%
Car Other High Income	AM	75,854	81,286	5,433	7.2%	76,071	81,503	5,433	7.1%
	IP	77,471	82,917	5,446	7.0%	77,501	82,947	5,446	7.0%
	PM	107,130	114,716	7,586	7.1%	107,373	114,959	7,586	7.1%
	OP	31,612	33,782	2,171	6.9%	31,569	33,739	2,171	6.9%
Car Total	AM	431,424	463,030	31,605	7.3%	432,317	463,922	31,605	7.3%
	IP	369,129	395,399	26,270	7.1%	369,282	395,552	26,270	7.1%
	PM	536,765	575,521	38,756	7.2%	537,505	576,261	38,756	7.2%
	OP	149,080	159,533	10,454	7.0%	148,930	159,384	10,454	7.0%
LGV	AM	113,770	120,547	6,778	6.0%	113,770	120,547	6,778	6.0%
	IP	86,087	91,134	5,047	5.9%	86,087	91,134	5,047	5.9%
	PM	88,562	93,817	5,255	5.9%	88,562	93,817	5,255	5.9%
	OP	33,240	35,265	2,024	6.1%	33,240	35,265	2,024	6.1%
HGV	AM	61,952	66,271	4,319	7.0%	61,952	66,271	4,319	7.0%
	IP	63,892	68,324	4,432	6.9%	63,892	68,324	4,432	6.9%
	PM	38,670	41,353	2,683	6.9%	38,670	41,353	2,683	6.9%
	OP	24,274	26,027	1,753	7.2%	24,274	26,027	1,753	7.2%

Highway Assignment Model (HAM) Convergence Statistics

D.6.3 Table D79 to Table D81 provide the highway assignment model convergence statistics for the 2026 high growth DM forecasts. Table D82 to Table D84 provide the highway assignment model convergence statistics for the 2026 high growth DS forecasts.

Table D79 – HAM Convergence Statistics – 2026 High Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
69	0.0063	0.0086	98.5	99.1
70	0.0062	0.0061	97.6	98.9
71	0.0056	0.0093	98.6	99.1
72	0.0058	0.0063	97.8	98.9

Table D80 – HAM Convergence Statistics – 2026 High Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
85	0.0054	0.012	98.0	99.1
86	0.0150	0.0067	97.6	99.1
87	0.0051	0.012	98.1	99.2
88	0.0154	0.0065	97.7	98.9

Table D81 – HAM Convergence Statistics – 2026 High Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
71	0.0066	0.014	98.0	98.8
72	0.0129	0.0088	97.5	98.5
73	0.0065	0.013	97.9	98.8
74	0.0115	0.0085	97.5	98.5

Table D82 – HAM Convergence Statistics – 2026 High Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
59	0.0062	0.0088	98.0	99.0
60	0.0058	0.0092	98.1	99.1
61	0.0057	0.0083	98.0	98.9
62	0.0069	0.011	98.1	99.0

Table D83 – HAM Convergence Statistics – 2026 High Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
97	0.0058	0.012	97.7	99.1
98	0.0141	0.0062	97.5	99.0
99	0.0055	0.012	98.4	99.2
100	0.0128	0.0068	97.6	98.9

Table D84 – HAM Convergence Statistics – 2026 High Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
65	0.0065	0.010	97.8	98.7
66	0.0076	0.014	97.6	98.8
67	0.0127	0.0097	97.6	98.6
68	0.0073	0.013	97.8	98.7

D.6.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

D.6.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D13 to Figure D15 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.

D.6.6 Table D85 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D13 – Actual Flow Comparison Plot – 2026 High Growth DM Vs DS AM Peak



Figure D14 – Actual Flow Comparison Plot – 2026 High Growth DM Vs DS Inter Peak



Figure D15 – Actual Flow Comparison Plot – 2026 High Growth DM Vs DS PM Peak



Table D85 – Cross River Traffic Flows – 2026 High Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	3,264	2,934	-330	-10%	1,869	1,722	-147	-8%	3,367	2,381	-986	-29%	8,500	7,037	-1,463	-17%
		IP	3,068	2,369	-699	-23%	904	704	-200	-22%	3,281	2,043	-1,238	-38%	7,253	5,116	-2,136	-29%
		PM	4,893	3,748	-1,146	-23%	1,224	922	-302	-25%	2,283	1,287	-996	-44%	8,401	5,957	-2,443	-29%
LTC		AM	0	1,912			0	357			0	1,341			0	3,610		
		IP	0	1,630			0	231			0	1,344			0	3,204		
		PM	0	3,167			0	353			0	1,074			0	4,595		
NB	Dartford	AM	3,264	4,846	1,582	48%	1,869	2,079	210	11%	3,367	3,722	355	11%	8,500	10,647	2,147	25%
		IP	3,068	3,999	931	30%	904	934	31	3%	3,281	3,387	106	3%	7,253	8,320	1,067	15%
		PM	4,893	6,915	2,022	41%	1,224	1,275	52	4%	2,283	2,361	78	3%	8,401	10,552	2,152	26%
LTC		AM	3,786	3,163	-623	-16%	1,512	1,141	-371	-25%	2,275	1,361	-913	-40%	7,572	5,666	-1,907	-25%
		IP	3,030	2,567	-463	-15%	1,064	878	-186	-17%	3,150	1,875	-1,275	-40%	7,244	5,321	-1,923	-27%
		PM	3,989	3,696	-293	-7%	1,102	916	-185	-17%	2,193	1,394	-799	-36%	7,283	6,007	-1,277	-18%
LTC		AM	0	2,528			0	504			0	1,100			0	4,131		
		IP	0	1,321			0	235			0	1,381			0	2,937		
		PM	0	1,478			0	236			0	813			0	2,527		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,786	5,690	1,905	50%	1,512	1,645	133	9%	2,275	2,461	186	8%	7,572	9,796	2,224	29%
		IP	3,030	3,888	858	28%	1,064	1,113	49	5%	3,150	3,256	106	3%	7,244	8,257	1,014	14%
		PM	3,989	5,174	1,185	30%	1,102	1,153	51	5%	2,193	2,207	14	1%	7,283	8,533	1,250	17%

D.6.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D86 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

Table D86 – Key Corridor Traffic Flows – 2026 High Growth DM Vs DS (Hourly Flows in PCU’s)

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,396	9,180	0.81	8,407	9,180	0.92	1,011	14%
		IP	7,062	9,180	0.77	7,528	9,180	0.82	466	7%
		PM	6,920	9,180	0.75	7,580	9,180	0.83	660	10%
	M25 J28 to M25 J29 (SB)	AM	7,570	9,115	0.83	7,696	9,180	0.84	126	2%
		IP	7,025	9,115	0.77	7,282	9,180	0.79	257	4%
		PM	7,584	9,115	0.83	7,748	9,180	0.84	164	2%
B	M25 J4 to M25 J3 (NB)	AM	5,558	6,850	0.81	5,790	6,850	0.85	232	4%
		IP	5,407	6,850	0.79	5,544	6,850	0.81	138	3%
		PM	5,941	6,850	0.87	6,119	6,850	0.89	179	3%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	5,101	6,850	0.74	5,235	6,850	0.76	134	3%
		PM	5,192	6,850	0.76	5,441	6,850	0.79	249	5%
C	A13 A126 to A1012 (EB)	AM	4,728	6,302	0.75	3,896	6,285	0.62	-832	-18%
		IP	4,871	6,278	0.78	4,433	6,273	0.71	-437	-9%
		PM	5,601	6,278	0.89	5,661	6,255	0.91	60	1%
	A13 A1012 to A126 (WB)	AM	6,135	6,360	0.96	5,761	6,360	0.91	-374	-6%
		IP	5,499	6,360	0.86	4,602	6,360	0.72	-897	-16%
		PM	5,355	6,360	0.84	4,236	6,360	0.67	-1,119	-21%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,135	6,370	0.65	4,633	6,370	0.73	498	12%
		IP	3,811	6,370	0.60	4,291	6,370	0.67	480	13%
		PM	5,179	6,370	0.81	5,816	6,370	0.91	638	12%
	A13 Manor Way to Orsett Cock (WB)	AM	5,014	6,220	0.81	5,968	6,220	0.96	953	19%
		IP	4,075	6,220	0.66	4,994	6,220	0.80	919	23%
		PM	4,259	6,220	0.68	5,530	6,220	0.89	1,271	30%
E	A2 A227 to Gravesend East (EB)	AM	5,909	9,225	0.64	4,682	9,211	0.51	-1,227	-21%
		IP	6,112	9,184	0.67	4,838	9,162	0.53	-1,274	-21%
		PM	8,747	9,183	0.95	7,816	9,157	0.85	-931	-11%
	A2 Gravesend East to A227 (WB)	AM	6,994	7,777	0.90	6,098	7,618	0.80	-896	-13%
		IP	5,938	7,671	0.77	4,805	7,484	0.64	-1,133	-19%
		PM	6,297	7,452	0.84	5,779	7,321	0.79	-518	-8%
F	M2 J1 to M2 J2 (EB)	AM	5,037	8,455	0.60	5,860	8,399	0.70	824	16%
		IP	4,290	8,565	0.50	5,261	8,539	0.62	971	23%

Location	Location Description	Time Period	DM			DS			Flow Differences		
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %	
	M2 J2 to M2 J1 (WB)	PM	6,490	8,572	0.76	7,765	8,541	0.91	1,275	20%	
		AM	5,004	9,115	0.55	6,685	9,180	0.73	1,681	34%	
		IP	3,846	9,115	0.42	4,867	9,180	0.53	1,020	27%	
	G	M20 J3 to M20 J4 (EB)	PM	4,719	9,115	0.52	5,415	9,180	0.59	696	15%
			AM	5,303	9,115	0.58	4,742	9,115	0.52	-561	-11%
			IP	5,284	9,115	0.58	4,625	9,115	0.51	-659	-12%
M20 J4 to M20 J3 (WB)		PM	7,983	9,115	0.88	7,454	9,115	0.82	-530	-7%	
		AM	8,226	9,115	0.90	7,220	9,115	0.79	-1,006	-12%	
		IP	5,066	9,115	0.56	4,265	9,115	0.47	-801	-16%	
		PM	4,440	9,115	0.49	3,828	9,115	0.42	-612	-14%	

DM Vs DS Journey Time Comparisons

- D.6.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.6.9 The link based journey time comparisons for this scenario are presented in Table D87 to Table D89.
- D.6.10 Table D90 to Table D95 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D87 – Link Based Journey Time Scenario Comparison (2026 High Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)	Distance (km)	Time (mins)	AV Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	18.9	74.8	23.5	17.9	78.8	-0.0	-1.0	3.9	-0.1%	-5.1%	+5.3%
	B to D	M25 J29	M25 J2	18.9	17.2	66.0	18.9	13.2	85.6	-0.0	-3.9	19.6	-0.1%	-22.9%	+29.7%
	D to F	M25 J2	M25 J7	37.4	29.2	76.9	37.4	32.1	70.0	0.0	2.9	-6.9	+0.0%	+9.8%	-8.9%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	27.4	83.0	37.8	27.4	82.9	0.0	0.0	-0.2	+0.0%	+0.2%	-0.2%
	D to B	M25 J2	M25 J29	18.6	23.2	48.3	18.4	14.7	75.5	-0.2	-8.5	27.2	-1.1%	-36.7%	+56.2%
	B to A	M25 J29	M25 J26	23.4	19.0	73.6	23.3	19.7	71.0	-0.0	0.7	-2.7	-0.1%	+3.7%	-3.6%
A13 EB	C to G	M25 J30	A1089	5.0	4.3	69.9	5.2	4.2	75.0	0.2	-0.2	5.0	+3.1%	-3.9%	+7.2%
	G to H	A1089	A130	15.7	11.0	85.4	15.7	11.5	82.3	-0.0	0.4	-3.1	-0.0%	+3.8%	-3.7%
A13 WB	H to G	A130	A1089	15.6	13.5	69.4	15.6	17.1	54.6	0.0	3.7	-14.7	+0.1%	+27.1%	-21.3%
	G to C	A1089	M25 J30	5.3	7.9	39.8	5.6	6.7	49.7	0.3	-1.2	9.8	+5.9%	-15.1%	+24.7%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.6	99.3	14.6	8.4	104.7	0.4	-0.2	5.4	+3.0%	-2.3%	+5.5%
	I to J	M2 J1	M2 J4	14.9	8.5	105.3	14.4	8.4	103.1	-0.5	-0.1	-2.2	-3.3%	-1.2%	-2.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	9.0	100.9	15.0	9.4	95.9	0.0	0.5	-5.0	+0.0%	+5.2%	-5.0%
	I to D	M2 J1	M25 J2	14.7	18.5	47.9	14.8	13.6	65.0	0.1	-4.8	17.1	+0.4%	-26.1%	+35.8%
M20 EB	E to K	M25 J3	M20 J8	35.2	25.1	84.0	35.2	24.4	86.6	0.0	-0.8	2.6	+0.0%	-3.1%	+3.1%
M20 WB	K to E	M20 J8	M25 J3	35.4	24.0	88.6	35.4	22.3	95.3	0.0	-1.7	6.7	+0.0%	-7.0%	+7.6%

Table D88 – Link Based Journey Time Scenario Comparison (2026 High Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.5	85.6	23.5	15.9	88.4	-0.0	-0.6	2.8	-0.1%	-3.3%	+3.3%
	B to D	M25 J29	M25 J2	18.9	13.5	84.2	18.9	12.1	93.3	-0.0	-1.3	9.1	-0.1%	-9.8%	+10.8%
	D to F	M25 J2	M25 J7	37.4	23.2	96.8	37.4	23.3	96.3	0.0	0.1	-0.5	+0.0%	+0.5%	-0.5%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	26.3	86.4	37.8	26.4	86.0	0.0	0.1	-0.3	+0.0%	+0.4%	-0.4%
	D to B	M25 J2	M25 J29	18.6	19.5	57.3	18.4	13.9	79.8	-0.2	-5.7	22.5	-1.1%	-29.0%	+39.3%
	B to A	M25 J29	M25 J26	23.4	16.2	86.4	23.3	16.4	85.3	-0.0	0.2	-1.1	-0.1%	+1.2%	-1.3%
A13 EB	C to G	M25 J30	A1089	5.0	4.6	65.6	5.2	4.4	71.0	0.2	-0.2	5.4	+3.1%	-4.7%	+8.2%
	G to H	A1089	A130	15.7	10.8	87.3	15.7	11.1	85.0	-0.0	0.3	-2.3	-0.0%	+2.6%	-2.6%
A13 WB	H to G	A130	A1089	15.6	10.7	87.1	15.6	11.7	79.6	0.0	1.0	-7.5	+0.1%	+9.5%	-8.6%
	G to C	A1089	M25 J30	5.3	5.5	57.8	5.6	5.1	65.8	0.3	-0.4	8.0	+5.9%	-7.0%	+13.9%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.6	98.9	14.6	8.4	104.5	0.4	-0.2	5.6	+3.0%	-2.5%	+5.7%
	I to J	M2 J1	M2 J4	14.9	8.3	107.2	14.4	8.2	105.8	-0.5	-0.2	-1.4	-3.3%	-2.0%	-1.3%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.4	107.7	15.0	8.5	106.2	0.0	0.1	-1.5	+0.0%	+1.4%	-1.4%
	I to D	M2 J1	M25 J2	14.7	10.3	86.0	14.8	8.7	101.5	0.1	-1.5	15.5	+0.4%	-14.9%	+18.0%
M20 EB	E to K	M25 J3	M20 J8	35.2	23.0	91.8	35.2	22.5	93.7	0.0	-0.5	1.9	+0.0%	-2.0%	+2.1%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.1	105.9	35.4	19.8	107.1	0.0	-0.2	1.2	+0.0%	-1.2%	+1.2%

Table D89 – Link Based Journey Time Scenario Comparison (2026 High Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	18.9	74.8	23.5	19.0	74.1	-0.0	0.1	-0.7	-0.1%	+0.8%	-0.9%
	B to D	M25 J29	M25 J2	18.9	15.8	71.7	18.9	12.4	91.0	-0.0	-3.4	19.4	-0.1%	-21.3%	+27.0%
	D to F	M25 J2	M25 J7	37.4	22.7	99.0	37.4	23.0	97.7	0.0	0.3	-1.2	+0.0%	+1.2%	-1.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	31.2	72.8	37.8	31.7	71.7	0.0	0.5	-1.1	+0.0%	+1.6%	-1.5%
	D to B	M25 J2	M25 J29	18.6	24.1	46.4	18.4	15.2	73.1	-0.2	-9.0	26.7	-1.1%	-37.2%	+57.5%
	B to A	M25 J29	M25 J26	23.4	15.5	90.3	23.3	15.8	88.8	-0.0	0.3	-1.5	-0.1%	+1.6%	-1.6%
A13 EB	C to G	M25 J30	A1089	5.0	7.9	38.4	5.2	6.0	52.3	0.2	-1.9	13.9	+3.1%	-24.4%	+36.3%
	G to H	A1089	A130	15.7	12.2	77.6	15.7	14.5	65.1	-0.0	2.3	-12.4	-0.0%	+19.1%	-16.0%
	H to G	A130	A1089	15.6	10.9	86.0	15.6	12.5	74.6	0.0	1.7	-11.4	+0.1%	+15.4%	-13.2%
A13 WB	G to C	A1089	M25 J30	5.3	5.5	57.9	5.6	4.9	68.9	0.3	-0.6	11.0	+5.9%	-11.0%	+19.0%
	D to I	M25 J2	M2 J1	14.2	14.8	57.7	14.6	10.1	86.7	0.4	-4.7	29.1	+3.0%	-31.5%	+50.4%
	I to J	M2 J1	M2 J4	14.9	9.6	93.6	14.4	12.4	69.7	-0.5	2.9	-23.9	-3.3%	+29.8%	-25.5%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.6	104.6	15.0	8.8	103.2	0.0	0.1	-1.4	+0.0%	+1.4%	-1.3%
	I to D	M2 J1	M25 J2	14.7	12.1	73.1	14.8	9.7	91.8	0.1	-2.4	18.8	+0.4%	-20.1%	+25.7%
M20 EB	E to K	M25 J3	M20 J8	35.2	32.5	65.0	35.2	32.6	64.7	0.0	0.1	-0.3	+0.0%	+0.4%	-0.4%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.0	106.3	35.4	19.8	107.2	0.0	-0.2	0.9	+0.0%	-0.8%	+0.8%

Table D90 – Route Based Journey Time Comparison North to South Movements (2026 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.9	65.8	56.4	61.9	64.3	57.8	0.1	-1.5	1.4	+0.1%	-2.3%	+2.5%
1 to 6	Cheshunt	Godstone	91.7	88.1	62.5	91.7	87.2	63.2	0.0	-0.9	0.7	+0.0%	-1.0%	+1.1%
1 to 7	Cheshunt	Southfleet	60.8	61.2	59.6	60.9	58.0	63.0	0.1	-3.2	3.4	+0.2%	-5.2%	+5.7%
1 to 8	Cheshunt	Maidstone	88.1	79.2	66.7	88.2	75.3	70.2	0.0	-3.9	3.5	+0.0%	-5.0%	+5.2%
1 to 9	Cheshunt	Rochester	76.8	82.2	56.0	70.9	75.2	56.6	-5.9	-7.1	0.6	-7.6%	-8.6%	+1.0%
1 to 10	Cheshunt	Rainham	92.4	84.2	65.9	87.8	76.0	69.3	-4.6	-8.2	3.5	-5.0%	-9.7%	+5.3%
2 to 5	Romford	Bexley	31.8	49.8	38.3	31.8	48.0	39.7	0.0	-1.8	1.5	+0.1%	-3.6%	+3.9%
2 to 6	Romford	Godstone	61.6	72.0	51.4	61.6	70.8	52.2	0.0	-1.1	0.8	+0.0%	-1.6%	+1.6%
2 to 7	Romford	Southfleet	30.7	45.1	40.8	30.8	41.7	44.3	0.1	-3.4	3.5	+0.3%	-7.6%	+8.6%
2 to 8	Romford	Maidstone	58.0	63.2	55.1	58.1	59.0	59.0	0.0	-4.2	3.9	+0.0%	-6.6%	+7.1%
2 to 9	Romford	Rochester	45.2	66.7	40.7	48.0	57.7	50.0	2.8	-9.0	9.3	+6.2%	-13.5%	+22.8%
2 to 10	Romford	Rainham	62.3	68.1	54.9	63.8	58.7	65.2	1.5	-9.4	10.3	+2.4%	-13.9%	+18.8%
3 to 5	Brentwood	Bexley	33.3	38.4	52.1	33.4	36.3	55.2	0.0	-2.1	3.1	+0.1%	-5.5%	+5.9%
3 to 6	Brentwood	Godstone	63.2	60.6	62.6	63.2	59.1	64.1	-0.0	-1.5	1.6	-0.0%	-2.5%	+2.5%
3 to 7	Brentwood	Southfleet	32.3	33.8	57.3	32.3	30.0	64.7	0.1	-3.8	7.4	+0.2%	-11.2%	+12.9%
3 to 8	Brentwood	Maidstone	59.6	51.8	69.1	59.6	47.3	75.7	-0.0	-4.5	6.6	-0.0%	-8.7%	+9.5%
3 to 9	Brentwood	Rochester	48.3	54.8	52.9	42.4	47.1	53.9	-5.9	-7.6	1.1	-12.2%	-14.0%	+2.0%
3 to 10	Brentwood	Rainham	63.9	56.7	67.6	59.3	47.9	74.2	-4.6	-8.8	6.6	-7.3%	-15.5%	+9.7%
4 to 5	Basildon	Bexley	36.6	49.6	44.3	37.5	45.2	49.8	0.9	-4.4	5.5	+2.4%	-8.9%	+12.4%
4 to 6	Basildon	Godstone	66.5	71.8	55.5	67.3	68.0	59.4	0.8	-3.8	3.8	+1.3%	-5.3%	+6.9%
4 to 7	Basildon	Southfleet	35.5	45.0	47.4	34.2	30.6	67.1	-1.3	-14.3	19.7	-3.6%	-31.9%	+41.5%
4 to 8	Basildon	Maidstone	62.9	63.0	59.9	48.4	52.0	55.9	-14.5	-11.0	-4.0	-23.0%	-17.4%	-6.7%
4 to 9	Basildon	Rochester	51.5	66.0	46.9	36.5	46.6	47.0	-15.0	-19.4	0.2	-29.2%	-29.4%	+0.3%
4 to 10	Basildon	Rainham	67.2	67.9	59.3	53.4	47.4	67.6	-13.8	-20.6	8.3	-20.5%	-30.3%	+13.9%

Table D91 – Route Based Journey Time Comparison North to South Movements (2026 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.9	51.4	72.2	61.8	50.9	72.9	-0.0	-0.6	0.7	-0.1%	-1.1%	+1.0%
1 to 6	Cheshunt	Godstone	91.4	67.9	80.8	91.4	67.1	81.7	-0.0	-0.8	1.0	-0.1%	-1.2%	+1.2%
1 to 7	Cheshunt	Southfleet	60.9	49.8	73.3	60.8	48.7	74.9	-0.0	-1.1	1.6	-0.1%	-2.2%	+2.1%
1 to 8	Cheshunt	Maidstone	88.1	65.3	81.0	82.5	64.3	77.0	-5.6	-1.0	-4.0	-6.4%	-1.5%	-5.0%
1 to 9	Cheshunt	Rochester	79.0	66.3	71.5	76.1	60.5	75.5	-2.9	-5.8	4.0	-3.6%	-8.7%	+5.6%
1 to 10	Cheshunt	Rainham	91.6	71.0	77.3	86.9	65.5	79.5	-4.7	-5.5	2.2	-5.1%	-7.7%	+2.8%
2 to 5	Romford	Bexley	35.4	41.3	51.4	35.4	39.6	53.6	0.0	-1.7	2.3	+0.0%	-4.2%	+4.4%
2 to 6	Romford	Godstone	64.9	57.8	67.4	64.9	55.8	69.8	0.0	-2.0	2.4	+0.0%	-3.4%	+3.6%
2 to 7	Romford	Southfleet	34.4	39.7	52.0	34.4	37.4	55.1	0.0	-2.2	3.1	+0.0%	-5.6%	+6.0%
2 to 8	Romford	Maidstone	61.6	55.2	67.1	56.1	53.0	63.5	-5.6	-2.1	-3.6	-9.0%	-3.9%	-5.4%
2 to 9	Romford	Rochester	52.6	56.1	56.2	49.7	49.3	60.5	-2.9	-6.9	4.3	-5.6%	-12.3%	+7.6%
2 to 10	Romford	Rainham	65.1	60.9	64.1	60.4	54.3	66.8	-4.6	-6.6	2.7	-7.1%	-10.9%	+4.3%
3 to 5	Brentwood	Bexley	32.5	31.5	61.8	32.5	30.4	64.1	-0.0	-1.2	2.3	-0.1%	-3.7%	+3.7%
3 to 6	Brentwood	Godstone	62.0	48.0	77.5	62.0	46.6	79.9	-0.0	-1.4	2.3	-0.1%	-3.0%	+3.0%
3 to 7	Brentwood	Southfleet	31.5	29.9	63.2	31.5	28.2	66.9	-0.0	-1.7	3.7	-0.1%	-5.6%	+5.8%
3 to 8	Brentwood	Maidstone	58.8	45.4	77.7	53.2	43.8	72.8	-5.6	-1.6	-4.9	-9.6%	-3.5%	-6.3%
3 to 9	Brentwood	Rochester	46.0	47.7	57.9	47.1	39.9	70.7	1.1	-7.7	12.8	+2.4%	-16.2%	+22.2%
3 to 10	Brentwood	Rainham	62.2	51.1	73.0	57.5	45.1	76.6	-4.7	-6.1	3.6	-7.5%	-11.9%	+5.0%
4 to 5	Basildon	Bexley	39.1	34.9	67.2	39.1	33.6	69.8	-0.0	-1.3	2.5	-0.1%	-3.7%	+3.8%
4 to 6	Basildon	Godstone	68.7	51.4	80.1	68.7	49.9	82.6	-0.0	-1.6	2.5	-0.1%	-3.1%	+3.1%
4 to 7	Basildon	Southfleet	38.2	33.3	68.7	33.4	26.1	76.7	-4.8	-7.2	8.0	-12.5%	-21.6%	+11.6%
4 to 8	Basildon	Maidstone	65.4	48.8	80.4	47.3	41.0	69.1	-18.1	-7.8	-11.3	-27.7%	-15.9%	-14.1%
4 to 9	Basildon	Rochester	56.4	49.8	68.0	40.9	37.3	65.8	-15.5	-12.5	-2.1	-27.5%	-25.2%	-3.1%
4 to 10	Basildon	Rainham	68.8	54.6	75.7	51.7	42.3	73.3	-17.2	-12.3	-2.4	-25.0%	-22.5%	-3.2%

Table D92 – Route Based Journey Time Comparison North to South Movements (2026 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.5	61.6	60.9	62.4	60.3	62.0	-0.1	-1.3	1.2	-0.2%	-2.1%	+1.9%
1 to 6	Cheshunt	Godstone	92.2	77.9	71.0	92.1	75.8	72.8	-0.1	-2.1	1.8	-0.1%	-2.6%	+2.6%
1 to 7	Cheshunt	Southfleet	61.2	59.5	61.7	61.2	57.3	64.1	-0.0	-2.2	2.4	-0.0%	-3.7%	+3.8%
1 to 8	Cheshunt	Maidstone	88.6	80.9	65.7	82.9	76.1	65.4	-5.7	-4.8	-0.3	-6.4%	-6.0%	-0.5%
1 to 9	Cheshunt	Rochester	76.0	88.5	51.5	71.4	78.9	54.3	-4.6	-9.6	2.8	-6.0%	-10.8%	+5.4%
1 to 10	Cheshunt	Rainham	92.9	98.4	56.6	88.1	88.3	59.9	-4.7	-10.1	3.3	-5.1%	-10.3%	+5.8%
2 to 5	Romford	Bexley	37.9	48.0	47.5	35.6	46.2	46.2	-2.4	-1.8	-1.2	-6.3%	-3.8%	-2.6%
2 to 6	Romford	Godstone	67.6	64.3	63.1	65.3	61.7	63.5	-2.4	-2.6	0.3	-3.5%	-4.0%	+0.5%
2 to 7	Romford	Southfleet	36.7	45.9	48.0	34.4	43.2	47.8	-2.3	-2.7	-0.1	-6.2%	-5.9%	-0.3%
2 to 8	Romford	Maidstone	64.0	67.3	57.1	56.1	61.9	54.3	-8.0	-5.4	-2.8	-12.4%	-8.0%	-4.8%
2 to 9	Romford	Rochester	51.4	74.9	41.2	44.6	64.7	41.3	-6.9	-10.1	0.1	-13.3%	-13.5%	+0.2%
2 to 10	Romford	Rainham	68.3	84.8	48.4	61.3	74.2	49.6	-7.0	-10.6	1.2	-10.3%	-12.5%	+2.5%
3 to 5	Brentwood	Bexley	33.5	39.6	50.7	33.5	38.6	52.1	-0.0	-1.1	1.4	-0.0%	-2.7%	+2.7%
3 to 6	Brentwood	Godstone	63.2	55.9	67.8	63.2	54.1	70.1	-0.0	-1.8	2.3	-0.0%	-3.3%	+3.4%
3 to 7	Brentwood	Southfleet	32.3	37.6	51.5	32.3	35.6	54.5	0.1	-2.0	3.0	+0.3%	-5.3%	+5.8%
3 to 8	Brentwood	Maidstone	59.6	59.0	60.7	54.0	54.3	59.6	-5.6	-4.6	-1.0	-9.4%	-7.8%	-1.7%
3 to 9	Brentwood	Rochester	46.8	66.5	42.2	42.4	57.2	44.4	-4.5	-9.4	2.2	-9.5%	-14.1%	+5.3%
3 to 10	Brentwood	Rainham	63.9	76.5	50.2	59.2	66.6	53.4	-4.7	-9.8	3.2	-7.3%	-12.9%	+6.4%
4 to 5	Basildon	Bexley	36.8	42.2	52.2	36.8	38.3	57.5	-0.0	-3.9	5.3	-0.0%	-9.3%	+10.2%
4 to 6	Basildon	Godstone	66.5	58.5	68.1	66.5	53.8	74.1	0.0	-4.7	6.0	+0.0%	-8.0%	+8.7%
4 to 7	Basildon	Southfleet	35.5	40.1	53.1	33.4	27.8	72.0	-2.1	-12.3	18.9	-5.9%	-30.7%	+35.7%
4 to 8	Basildon	Maidstone	62.9	61.6	61.3	47.3	46.7	60.7	-15.6	-14.8	-0.6	-24.8%	-24.1%	-0.9%
4 to 9	Basildon	Rochester	50.2	69.1	43.6	35.8	49.5	43.3	-14.5	-19.6	-0.3	-28.8%	-28.3%	-0.7%
4 to 10	Basildon	Rainham	67.2	79.0	51.0	52.5	59.0	53.4	-14.6	-20.0	2.4	-21.8%	-25.3%	+4.7%

Table D93 – Route Based Journey Time Comparison South to North Movements (2026 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	58.6	63.1	61.6	55.1	67.1	-0.0	-3.5	3.9	-0.1%	-6.0%	+6.3%
5 to 2	Bexley	Romford	31.7	45.8	41.6	33.4	40.2	49.9	1.7	-5.6	8.3	+5.3%	-12.3%	+20.0%
5 to 3	Bexley	Brentwood	34.4	44.3	46.6	34.3	37.5	54.8	-0.2	-6.8	8.1	-0.5%	-15.3%	+17.5%
5 to 4	Bexley	Basildon	36.5	40.0	54.8	36.5	34.4	63.6	-0.0	-5.5	8.8	-0.0%	-13.9%	+16.1%
6 to 1	Godstone	Cheshunt	91.2	79.1	69.2	91.2	75.5	72.5	-0.0	-3.6	3.3	-0.0%	-4.6%	+4.8%
6 to 2	Godstone	Romford	63.0	65.6	57.6	63.0	60.5	62.5	0.0	-5.1	4.8	+0.0%	-7.8%	+8.4%
6 to 3	Godstone	Brentwood	64.0	64.8	59.3	63.9	57.9	66.2	-0.2	-6.9	6.9	-0.3%	-10.7%	+11.7%
6 to 4	Godstone	Basildon	66.1	60.5	65.5	66.1	54.8	72.4	-0.0	-5.7	6.8	-0.0%	-9.4%	+10.4%
7 to 1	Southfleet	Cheshunt	60.9	59.3	61.7	60.6	53.0	68.6	-0.3	-6.3	7.0	-0.5%	-10.6%	+11.3%
7 to 2	Southfleet	Romford	32.7	45.8	42.9	32.5	38.1	51.2	-0.2	-7.7	8.3	-0.7%	-16.8%	+19.4%
7 to 3	Southfleet	Brentwood	33.7	45.0	45.0	33.3	35.5	56.4	-0.4	-9.6	11.4	-1.3%	-21.2%	+25.3%
7 to 4	Southfleet	Basildon	35.8	40.7	52.8	35.5	27.1	78.7	-0.3	-13.6	25.9	-0.9%	-33.5%	+49.0%
8 to 1	Maidstone	Cheshunt	88.1	82.4	64.1	87.7	76.4	68.9	-0.4	-6.0	4.7	-0.5%	-7.3%	+7.3%
8 to 2	Maidstone	Romford	57.4	70.0	49.3	60.0	61.4	58.6	2.5	-8.6	9.3	+4.4%	-12.3%	+19.0%
8 to 3	Maidstone	Brentwood	61.0	68.2	53.7	55.1	60.2	54.9	-5.9	-8.0	1.3	-9.6%	-11.7%	+2.4%
8 to 4	Maidstone	Basildon	63.0	63.8	59.2	50.7	50.1	60.7	-12.4	-13.7	1.4	-19.6%	-21.5%	+2.4%
9 to 1	Rochester	Cheshunt	77.0	87.9	52.6	71.5	71.9	59.7	-5.5	-16.0	7.1	-7.2%	-18.2%	+13.5%
9 to 2	Rochester	Romford	48.8	74.5	39.3	44.5	58.1	45.9	-4.3	-16.3	6.6	-8.8%	-21.9%	+16.8%
9 to 3	Rochester	Brentwood	49.9	73.7	40.6	42.8	54.1	47.4	-7.1	-19.6	6.8	-14.2%	-26.6%	+16.8%
9 to 4	Rochester	Basildon	51.9	69.3	44.9	38.3	44.0	52.2	-13.6	-25.3	7.3	-26.2%	-36.5%	+16.3%
10 to 1	Rainham	Cheshunt	92.6	96.2	57.7	88.5	79.7	66.6	-4.0	-16.5	8.9	-4.4%	-17.1%	+15.4%
10 to 2	Rainham	Romford	64.4	82.7	46.7	61.8	65.9	56.3	-2.6	-16.9	9.6	-4.0%	-20.4%	+20.6%
10 to 3	Rainham	Brentwood	65.4	82.0	47.9	59.8	61.9	58.0	-5.6	-20.0	10.1	-8.6%	-24.5%	+21.0%
10 to 4	Rainham	Basildon	67.4	77.6	52.1	55.3	51.8	64.1	-12.1	-25.8	11.9	-18.0%	-33.2%	+22.8%

Table D94 – Route Based Journey Time Comparison South to North Movements (2026 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	54.2	68.1	61.5	50.9	72.5	-0.1	-3.3	4.4	-0.1%	-6.1%	+6.4%
5 to 2	Bexley	Romford	35.7	39.9	53.6	34.5	36.3	57.0	-1.2	-3.6	3.4	-3.4%	-9.1%	+6.3%
5 to 3	Bexley	Brentwood	32.3	36.9	52.4	32.1	32.3	59.6	-0.2	-4.6	7.2	-0.6%	-12.6%	+13.7%
5 to 4	Bexley	Basildon	36.5	38.3	57.1	36.5	32.8	66.8	-0.0	-5.6	9.7	-0.0%	-14.5%	+17.0%
6 to 1	Godstone	Cheshunt	91.5	74.3	73.8	91.4	71.2	77.0	-0.0	-3.1	3.2	-0.0%	-4.2%	+4.3%
6 to 2	Godstone	Romford	65.6	60.1	65.5	64.3	56.6	68.2	-1.2	-3.4	2.7	-1.9%	-5.7%	+4.1%
6 to 3	Godstone	Brentwood	62.2	57.1	65.4	62.0	52.6	70.6	-0.2	-4.4	5.3	-0.3%	-7.8%	+8.1%
6 to 4	Godstone	Basildon	66.4	58.5	68.1	66.4	53.1	75.0	-0.0	-5.3	6.9	-0.0%	-9.1%	+10.1%
7 to 1	Southfleet	Cheshunt	60.7	53.1	68.5	60.6	49.5	73.4	-0.0	-3.6	4.9	-0.1%	-6.8%	+7.2%
7 to 2	Southfleet	Romford	34.7	38.8	53.7	33.5	34.9	57.6	-1.2	-3.9	3.9	-3.5%	-10.1%	+7.3%
7 to 3	Southfleet	Brentwood	31.3	35.8	52.5	31.1	30.9	60.4	-0.2	-4.9	8.0	-0.6%	-13.7%	+15.2%
7 to 4	Southfleet	Basildon	35.5	37.2	57.3	35.5	26.6	80.0	-0.1	-10.6	22.7	-0.2%	-28.5%	+39.6%
8 to 1	Maidstone	Cheshunt	88.1	76.5	69.1	83.8	72.6	69.2	-4.3	-3.9	0.1	-4.9%	-5.0%	+0.2%
8 to 2	Maidstone	Romford	62.2	62.2	60.0	56.8	57.9	58.8	-5.5	-4.3	-1.2	-8.8%	-6.9%	-2.0%
8 to 3	Maidstone	Brentwood	58.8	59.2	59.6	55.0	51.7	63.8	-3.8	-7.5	4.2	-6.5%	-12.7%	+7.0%
8 to 4	Maidstone	Basildon	63.0	60.6	62.4	50.7	47.2	64.4	-12.4	-13.3	1.9	-19.6%	-22.0%	+3.1%
9 to 1	Rochester	Cheshunt	76.9	73.6	62.7	72.9	64.4	67.9	-4.0	-9.2	5.2	-5.2%	-12.5%	+8.3%
9 to 2	Rochester	Romford	51.1	59.3	51.7	45.9	49.7	55.4	-5.2	-9.6	3.7	-10.2%	-16.2%	+7.2%
9 to 3	Rochester	Brentwood	47.7	56.3	50.8	44.1	43.5	60.8	-3.6	-12.8	10.0	-7.5%	-22.8%	+19.8%
9 to 4	Rochester	Basildon	51.9	57.7	53.9	39.8	39.0	61.1	-12.1	-18.7	7.2	-23.3%	-32.3%	+13.3%
10 to 1	Rainham	Cheshunt	91.6	76.0	72.3	87.6	66.7	78.8	-4.0	-9.3	6.4	-4.4%	-12.2%	+8.9%
10 to 2	Rainham	Romford	65.8	61.7	63.9	60.6	52.0	69.9	-5.2	-9.7	5.9	-7.9%	-15.8%	+9.3%
10 to 3	Rainham	Brentwood	62.4	58.7	63.7	58.8	45.8	77.0	-3.6	-12.9	13.3	-5.7%	-22.0%	+20.9%
10 to 4	Rainham	Basildon	66.6	60.1	66.4	54.5	41.3	79.1	-12.1	-18.8	12.6	-18.2%	-31.2%	+19.0%

Table D95 – Route Based Journey Time Comparison South to North Movements (2026 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	63.7	62.0	61.6	63.6	59.7	63.9	-0.1	-2.3	2.3	-0.1%	-3.7%	+3.7%
5 to 2	Bexley	Romford	39.3	47.5	49.6	34.0	46.0	44.4	-5.3	-1.6	-5.2	-13.5%	-3.3%	-10.6%
5 to 3	Bexley	Brentwood	35.9	49.4	43.5	36.4	41.8	52.4	0.6	-7.6	8.8	+1.6%	-15.5%	+20.2%
5 to 4	Bexley	Basildon	38.7	51.5	45.0	38.7	46.7	49.7	-0.0	-4.8	4.7	-0.0%	-9.4%	+10.4%
6 to 1	Godstone	Cheshunt	91.2	78.8	69.4	91.2	76.6	71.4	-0.0	-2.2	2.0	-0.0%	-2.8%	+2.9%
6 to 2	Godstone	Romford	66.7	64.4	62.2	63.0	62.5	60.5	-3.7	-1.9	-1.7	-5.6%	-2.9%	-2.7%
6 to 3	Godstone	Brentwood	64.0	66.0	58.2	63.9	58.7	65.3	-0.2	-7.3	7.1	-0.3%	-11.1%	+12.1%
6 to 4	Godstone	Basildon	66.1	68.4	58.0	66.1	63.6	62.4	-0.0	-4.8	4.4	-0.0%	-7.0%	+7.5%
7 to 1	Southfleet	Cheshunt	60.7	55.2	66.0	60.6	51.8	70.3	-0.0	-3.4	4.3	-0.1%	-6.2%	+6.6%
7 to 2	Southfleet	Romford	36.2	40.8	53.3	36.5	36.2	60.4	0.3	-4.5	7.1	+0.8%	-11.1%	+13.4%
7 to 3	Southfleet	Brentwood	32.7	42.6	46.1	33.3	33.8	59.1	0.6	-8.8	13.0	+1.8%	-20.6%	+28.2%
7 to 4	Southfleet	Basildon	35.5	44.7	47.7	36.0	31.9	67.7	0.5	-12.8	20.0	+1.3%	-28.6%	+41.9%
8 to 1	Maidstone	Cheshunt	88.1	74.9	70.6	88.1	71.7	73.7	-0.0	-3.2	3.1	-0.1%	-4.3%	+4.4%
8 to 2	Maidstone	Romford	63.7	60.5	63.2	58.4	58.0	60.4	-5.3	-2.5	-2.8	-8.3%	-4.1%	-4.4%
8 to 3	Maidstone	Brentwood	60.2	62.4	57.9	60.8	53.8	67.8	0.6	-8.6	9.9	+1.0%	-13.8%	+17.1%
8 to 4	Maidstone	Basildon	63.0	64.5	58.7	51.8	54.3	57.1	-11.3	-10.1	-1.5	-17.9%	-15.7%	-2.6%
9 to 1	Rochester	Cheshunt	75.3	86.3	52.3	71.3	75.7	56.5	-4.0	-10.6	4.1	-5.4%	-12.3%	+7.9%
9 to 2	Rochester	Romford	51.0	71.8	42.6	48.0	59.9	48.1	-2.9	-11.9	5.5	-5.8%	-16.6%	+12.9%
9 to 3	Rochester	Brentwood	47.5	73.7	38.7	42.6	55.9	45.8	-4.9	-17.8	7.1	-10.2%	-24.1%	+18.3%
9 to 4	Rochester	Basildon	50.3	75.8	39.8	38.2	53.2	43.1	-12.1	-22.6	3.2	-24.1%	-29.8%	+8.2%
10 to 1	Rainham	Cheshunt	92.6	81.6	68.1	88.5	70.6	75.3	-4.0	-11.0	7.2	-4.3%	-13.5%	+10.6%
10 to 2	Rainham	Romford	68.1	67.1	60.8	64.1	55.1	69.7	-4.0	-12.0	8.9	-5.9%	-17.9%	+14.6%
10 to 3	Rainham	Brentwood	65.4	68.7	57.1	59.8	50.9	70.5	-5.6	-17.9	13.4	-8.6%	-26.0%	+23.5%
10 to 4	Rainham	Basildon	67.4	71.1	56.9	55.3	48.2	69.0	-12.1	-23.0	12.1	-17.9%	-32.3%	+21.2%

D.7 LTAM 2031 High Growth – Outputs to Economic Assessment

D.7.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2031 high growth forecast.

Matrix Total Comparison

D.7.2 Table D96 and Table D97 provide a comparison of the VDM output core scenario matrices and the 2031 high growth matrices for all movements and relevant movements respectively.

Table D96 – Matrix Total Comparison – 2031 High Growth All Movements (PCU's)

Userclass	Time Period	All Movements								
		Core Scenario VDM Output Matrix (2031 DM)	High Growth Scenario (2031 DM)				Core Scenario VDM Output Matrix (2031 DS)	High Growth Scenario (2031 DS)		
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core
Car Employers Business	AM	496,876	540,132	43,256	8.7%	496,961	540,218	43,256	8.7%	
	IP	431,994	469,618	37,624	8.7%	431,981	469,605	37,624	8.7%	
	PM	593,204	644,940	51,737	8.7%	593,250	644,987	51,737	8.7%	
	OP	174,601	189,759	15,158	8.7%	174,585	189,742	15,158	8.7%	
Car Commute Low Income	AM	454,826	495,181	40,354	8.9%	454,807	495,161	40,354	8.9%	
	IP	207,834	226,160	18,326	8.8%	207,849	226,175	18,326	8.8%	
	PM	521,966	568,120	46,154	8.8%	521,985	568,140	46,154	8.8%	
	OP	83,731	91,118	7,387	8.8%	83,731	91,118	7,387	8.8%	
Car Commute Medium Income	AM	921,929	1,003,647	81,718	8.9%	922,028	1,003,746	81,718	8.9%	
	IP	319,447	347,602	28,155	8.8%	319,439	347,594	28,155	8.8%	
	PM	1,002,744	1,091,286	88,542	8.8%	1,002,798	1,091,340	88,542	8.8%	
	OP	128,679	140,030	11,351	8.8%	128,666	140,017	11,351	8.8%	
Car Commute High Income	AM	785,697	855,272	69,575	8.9%	785,615	855,190	69,575	8.9%	
	IP	227,341	247,410	20,069	8.8%	227,357	247,426	20,069	8.8%	
	PM	810,999	882,669	71,670	8.8%	811,160	882,830	71,670	8.8%	
	OP	91,557	99,641	8,084	8.8%	91,551	99,636	8,084	8.8%	
Car Other Low Income	AM	759,176	822,181	63,006	8.3%	759,409	822,415	63,006	8.3%	
	IP	1,344,901	1,456,774	111,873	8.3%	1,344,886	1,456,759	111,873	8.3%	
	PM	1,310,109	1,419,177	109,068	8.3%	1,310,199	1,419,267	109,068	8.3%	
	OP	544,614	589,705	45,091	8.3%	544,565	589,657	45,091	8.3%	
Car Other Medium Income	AM	811,109	878,318	67,209	8.3%	811,221	878,431	67,210	8.3%	
	IP	1,077,630	1,166,995	89,365	8.3%	1,077,673	1,167,038	89,365	8.3%	
	PM	1,323,071	1,432,873	109,802	8.3%	1,323,116	1,432,918	109,802	8.3%	
	OP	436,662	472,665	36,003	8.2%	436,624	472,627	36,003	8.2%	
Car Other High Income	AM	649,223	703,003	53,780	8.3%	649,344	703,124	53,780	8.3%	
	IP	725,000	784,991	59,991	8.3%	724,994	784,985	59,991	8.3%	
	PM	1,003,799	1,086,932	83,133	8.3%	1,003,995	1,087,127	83,133	8.3%	
	OP	294,134	318,292	24,159	8.2%	294,082	318,241	24,159	8.2%	
Car Total	AM	4,878,835	5,297,734	418,899	8.6%	4,879,385	5,298,285	418,899	8.6%	
	IP	4,334,147	4,699,551	365,404	8.4%	4,334,179	4,699,582	365,404	8.4%	
	PM	6,565,892	7,125,997	560,106	8.5%	6,566,503	7,126,608	560,106	8.5%	
	OP	1,753,978	1,901,210	147,232	8.4%	1,753,804	1,901,037	147,232	8.4%	
LGV	AM	1,044,988	1,115,501	70,513	6.7%	1,044,988	1,115,501	70,513	6.7%	
	IP	901,598	962,338	60,740	6.7%	901,598	962,338	60,740	6.7%	
	PM	754,014	804,839	50,825	6.7%	754,014	804,839	50,825	6.7%	
	OP	361,903	386,398	24,495	6.8%	361,903	386,398	24,495	6.8%	
HGV	AM	426,603	462,889	36,286	8.5%	426,603	462,889	36,286	8.5%	
	IP	424,378	460,462	36,084	8.5%	424,378	460,462	36,084	8.5%	
	PM	267,136	289,849	22,712	8.5%	267,136	289,849	22,712	8.5%	
	OP	169,277	183,782	14,505	8.6%	169,277	183,782	14,505	8.6%	

Table D97 – Matrix Total Comparison – 2031 High Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2031 DM)	High Growth Scenario (2031 DM)		Core Scenario VDM Output Matrix (2031 DS)	High Growth Scenario (2031 DS)			
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	40,951	44,533	3,582	8.7%	41,057	44,639	3,582	8.7%
	IP	28,608	31,061	2,453	8.6%	28,612	31,065	2,453	8.6%
	PM	40,675	44,205	3,530	8.7%	40,746	44,276	3,530	8.7%
	OP	11,484	12,454	970	8.4%	11,467	12,437	970	8.5%
Car Commute Low Income	AM	32,461	35,355	2,894	8.9%	32,439	35,333	2,894	8.9%
	IP	18,273	19,874	1,601	8.8%	18,289	19,890	1,601	8.8%
	PM	34,357	37,389	3,032	8.8%	34,379	37,411	3,032	8.8%
	OP	7,194	7,831	637	8.9%	7,194	7,830	637	8.9%
Car Commute Medium Income	AM	69,399	75,653	6,254	9.0%	69,497	75,751	6,254	9.0%
	IP	27,927	30,364	2,437	8.7%	27,919	30,356	2,437	8.7%
	PM	68,076	74,128	6,052	8.9%	68,135	74,188	6,052	8.9%
	OP	11,060	12,035	974	8.8%	11,047	12,021	974	8.8%
Car Commute High Income	AM	66,221	72,187	5,965	9.0%	66,143	72,108	5,965	9.0%
	IP	23,742	25,820	2,078	8.8%	23,760	25,839	2,078	8.7%
	PM	66,265	72,164	5,899	8.9%	66,436	72,334	5,899	8.9%
	OP	9,460	10,290	830	8.8%	9,454	10,284	830	8.8%
Car Other Low Income	AM	76,597	82,945	6,348	8.3%	76,883	83,232	6,348	8.3%
	IP	107,454	116,224	8,770	8.2%	107,509	116,279	8,770	8.2%
	PM	112,114	121,411	9,297	8.3%	112,273	121,570	9,297	8.3%
	OP	44,082	47,570	3,488	7.9%	44,023	47,511	3,488	7.9%
Car Other Medium Income	AM	85,238	92,250	7,012	8.2%	85,403	92,415	7,012	8.2%
	IP	101,197	109,362	8,165	8.1%	101,313	109,478	8,165	8.1%
	PM	126,553	136,917	10,364	8.2%	126,675	137,039	10,364	8.2%
	OP	41,625	44,870	3,245	7.8%	41,581	44,826	3,245	7.8%
Car Other High Income	AM	80,554	87,208	6,653	8.3%	80,731	87,385	6,653	8.2%
	IP	82,578	89,248	6,670	8.1%	82,630	89,300	6,670	8.1%
	PM	113,464	122,755	9,291	8.2%	113,750	123,041	9,291	8.2%
	OP	34,226	36,884	2,659	7.8%	34,174	36,832	2,659	7.8%
Car Total	AM	451,421	490,130	38,709	8.6%	452,154	490,863	38,709	8.6%
	IP	389,779	421,954	32,174	8.3%	390,033	422,207	32,174	8.2%
	PM	561,503	608,970	47,466	8.5%	562,393	609,859	47,466	8.4%
	OP	159,131	171,934	12,803	8.0%	158,939	171,742	12,803	8.1%
LGV	AM	125,357	133,657	8,301	6.6%	125,357	133,657	8,301	6.6%
	IP	95,018	101,199	6,181	6.5%	95,018	101,199	6,181	6.5%
	PM	97,752	104,188	6,436	6.6%	97,752	104,188	6,436	6.6%
	OP	36,489	38,968	2,479	6.8%	36,489	38,968	2,479	6.8%
HGV	AM	64,706	69,996	5,290	8.2%	64,706	69,996	5,290	8.2%
	IP	66,722	72,150	5,428	8.1%	66,722	72,150	5,428	8.1%
	PM	40,311	43,597	3,286	8.2%	40,311	43,597	3,286	8.2%
	OP	25,309	27,456	2,147	8.5%	25,309	27,456	2,147	8.5%

Highway Assignment Model (HAM) Convergence Statistics

D.7.3 Table D98 to Table D100 provide the highway assignment model convergence statistics for the 2031 high growth DM forecasts. Table D101 to Table D103 provide the highway assignment model convergence statistics for the 2031 high growth DS forecasts.

Table D98 – HAM Convergence Statistics – 2031 High Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
69	0.0081	0.013	98.0	98.6
70	0.0082	0.011	97.5	98.5
71	0.0083	0.013	97.8	98.5
72	0.0070	0.0097	97.6	98.6

Table D99 – HAM Convergence Statistics – 2031 High Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
66	0.0084	0.012	98.1	99.0
67	0.0117	0.0077	97.6	98.9
68	0.0068	0.012	98.1	99.0
69	0.0138	0.0078	97.8	98.9

Table D100 – HAM Convergence Statistics – 2031 High Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
92	0.0060	0.013	98.2	98.7
93	0.0130	0.0094	97.7	98.5
94	0.0060	0.0094	98.0	98.5
95	0.0057	0.017	98.1	98.6

Table D101 – HAM Convergence Statistics – 2031 High Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
65	0.0073	0.011	97.7	98.5
66	0.0088	0.010	97.6	98.6
67	0.0083	0.0092	97.7	98.6
68	0.0078	0.010	98.0	98.7

Table D102 – HAM Convergence Statistics – 2031 High Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
80	0.0054	0.013	97.7	98.9
81	0.0151	0.0071	97.6	98.8
82	0.0064	0.0064	98.1	99.0
83	0.0054	0.016	98.3	98.9

Table D103 – HAM Convergence Statistics – 2031 High Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
108	0.0057	0.013	98.0	98.5
109	0.0124	0.0091	97.8	98.4
110	0.0068	0.014	97.9	98.5
111	0.0133	0.0098	97.7	98.4

- D.7.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

- D.7.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D16 to Figure D18 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.
- D.7.6 Table D104 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D16 – Actual Flow Comparison Plot – 2031 High Growth DM Vs DS AM Peak



Figure D17 – Actual Flow Comparison Plot – 2031 High Growth DM Vs DS Inter Peak



Figure D18 – Actual Flow Comparison Plot – 2031 High Growth DM Vs DS PM Peak



Table D104 – Cross River Traffic Flows – 2031 High Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	3,236	3,176	-60	-2%	1,950	1,877	-73	-4%	3,314	2,483	-831	-25%	8,500	7,537	-963	-11%
		IP	3,296	2,631	-665	-20%	1,004	786	-218	-22%	3,457	2,167	-1,290	-37%	7,757	5,584	-2,173	-28%
		PM	4,866	3,938	-928	-19%	1,310	1,015	-295	-23%	2,323	1,343	-980	-42%	8,500	6,297	-2,203	-26%
	LTC	AM	0	2,056			0	387			0	1,339			0	3,782		
		IP	0	1,783			0	258			0	1,414			0	3,456		
		PM	0	3,287			0	379			0	1,086			0	4,753		
	Total	AM	3,236	5,232	1,996	62%	1,950	2,264	314	16%	3,314	3,822	508	15%	8,500	11,319	2,819	33%
		IP	3,296	4,415	1,118	34%	1,004	1,045	41	4%	3,457	3,581	124	4%	7,757	9,040	1,283	17%
		PM	4,866	7,226	2,359	48%	1,310	1,394	84	6%	2,323	2,430	106	5%	8,500	11,049	2,549	30%
NB	Dartford	AM	3,742	3,322	-420	-11%	1,611	1,246	-364	-23%	2,277	1,416	-862	-38%	7,630	5,984	-1,646	-22%
		IP	3,088	2,788	-300	-10%	1,150	977	-173	-15%	3,233	1,983	-1,250	-39%	7,471	5,748	-1,723	-23%
		PM	4,074	3,857	-217	-5%	1,197	1,002	-195	-16%	2,239	1,431	-808	-36%	7,510	6,290	-1,220	-16%
	LTC	AM	0	2,675			0	566			0	1,152			0	4,394		
		IP	0	1,485			0	269			0	1,454			0	3,208		
		PM	0	1,674			0	260			0	837			0	2,771		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,742	5,997	2,255	60%	1,611	1,813	202	13%	2,277	2,568	290	13%	7,630	10,377	2,747	36%
		IP	3,088	4,273	1,185	38%	1,150	1,246	96	8%	3,233	3,437	204	6%	7,471	8,956	1,484	20%
		PM	4,074	5,531	1,457	36%	1,197	1,262	65	5%	2,239	2,268	29	1%	7,510	9,061	1,551	21%

D.7.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D105 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D105 – Key Corridor Traffic Flows – 2031 High Growth DM Vs DS
(Hourly Flows in PCU's)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,648	9,180	0.83	8,874	9,180	0.97	1,226	16%
		IP	7,282	9,180	0.79	8,074	9,180	0.88	792	11%
		PM	7,055	9,180	0.77	7,883	9,180	0.86	828	12%
	M25 J28 to M25 J29 (SB)	AM	7,747	9,115	0.85	7,832	9,180	0.85	85	1%
		IP	7,482	9,115	0.82	7,688	9,180	0.84	206	3%
		PM	7,853	9,115	0.86	8,004	9,180	0.87	151	2%
B	M25 J4 to M25 J3 (NB)	AM	5,796	6,850	0.85	6,040	6,850	0.88	244	4%
		IP	5,675	6,850	0.83	5,880	6,850	0.86	205	4%
		PM	6,155	6,850	0.90	6,345	6,850	0.93	190	3%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	5,446	6,850	0.80	5,652	6,850	0.83	206	4%
		PM	5,233	6,850	0.76	5,581	6,850	0.81	348	7%
C	A13 A126 to A1012 (EB)	AM	4,959	6,305	0.79	4,184	6,287	0.67	-775	-16%
		IP	5,066	6,278	0.81	4,657	6,274	0.74	-409	-8%
		PM	5,600	6,277	0.89	5,552	6,252	0.89	-48	-1%
	A13 A1012 to A126 (WB)	AM	6,170	6,360	0.97	5,798	6,360	0.91	-372	-6%
		IP	5,768	6,360	0.91	4,865	6,360	0.76	-903	-16%
		PM	5,620	6,360	0.88	4,537	6,360	0.71	-1,083	-19%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,435	6,370	0.70	4,977	6,370	0.78	542	12%
		IP	3,966	6,370	0.62	4,548	6,370	0.71	582	15%
		PM	5,295	6,370	0.83	5,867	6,363	0.92	572	11%
	A13 Manor Way to Orsett Cock (WB)	AM	5,152	6,220	0.83	6,021	6,220	0.97	869	17%
		IP	4,313	6,220	0.69	5,327	6,220	0.86	1,015	24%
		PM	4,668	6,220	0.75	5,826	6,220	0.94	1,158	25%
E	A2 A227 to Gravesend East (EB)	AM	6,306	9,209	0.68	5,327	9,194	0.58	-979	-16%
		IP	6,628	9,174	0.72	5,340	9,148	0.58	-1,287	-19%
		PM	8,590	9,174	0.94	7,824	9,154	0.85	-766	-9%
	A2 Gravesend East to A227 (WB)	AM	7,112	7,774	0.91	6,276	7,607	0.82	-836	-12%
		IP	6,276	7,690	0.82	5,249	7,466	0.70	-1,027	-16%
		PM	6,636	7,458	0.89	6,089	7,335	0.83	-547	-8%
F	M2 J1 to M2 J2 (EB)	AM	5,328	8,481	0.63	6,314	8,396	0.75	986	19%
		IP	4,705	8,544	0.55	5,694	8,520	0.67	989	21%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
	M2 J2 to M2 J1 (WB)	PM	6,517	8,569	0.76	7,829	8,519	0.92	1,312	20%
		AM	5,201	9,115	0.57	6,940	9,180	0.76	1,739	33%
		IP	4,227	9,115	0.46	5,390	9,180	0.59	1,163	28%
	PM	4,923	9,115	0.54	5,645	9,180	0.61	722	15%	
G	M20 J3 to M20 J4 (EB)	AM	5,843	9,115	0.64	5,231	9,115	0.57	-612	-10%
		IP	5,756	9,115	0.63	5,080	9,115	0.56	-676	-12%
		PM	8,125	9,115	0.89	7,649	9,115	0.84	-477	-6%
	M20 J4 to M20 J3 (WB)	AM	8,407	9,115	0.92	7,399	9,115	0.81	-1,007	-12%
		IP	5,456	9,115	0.60	4,603	9,115	0.50	-853	-16%
		PM	4,860	9,115	0.53	4,229	9,115	0.46	-631	-13%

DM Vs DS Journey Time Comparisons

- D.7.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.7.9 The link based journey time comparisons for this scenario are presented in Table D106 to Table D108.
- D.7.10 Table D109 to Table D114 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D106 – Link Based Journey Time Scenario Comparison (2031 High Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	19.9	70.8	23.5	19.2	73.3	-0.0	-0.7	2.5	-0.1%	-3.5%	+3.5%
	B to D	M25 J29	M25 J2	18.9	18.3	61.8	18.9	13.7	82.5	-0.0	-4.6	20.7	-0.1%	-25.2%	+33.6%
	D to F	M25 J2	M25 J7	37.4	30.5	73.6	37.4	34.0	66.0	0.0	3.5	-7.6	+0.0%	+11.5%	-10.3%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	28.9	78.5	37.8	29.0	78.2	0.0	0.1	-0.3	+0.0%	+0.3%	-0.3%
	D to B	M25 J2	M25 J29	18.6	25.1	44.6	18.4	15.3	72.6	-0.2	-9.8	27.9	-1.1%	-39.2%	+62.6%
	B to A	M25 J29	M25 J26	23.4	20.1	69.7	23.3	21.7	64.7	-0.0	1.5	-5.0	-0.1%	+7.6%	-7.1%
A13 EB	C to G	M25 J30	A1089	5.0	4.6	66.1	5.2	4.3	73.2	0.2	-0.3	7.1	+3.1%	-6.9%	+10.7%
	G to H	A1089	A130	15.7	11.4	82.7	15.7	12.4	76.2	-0.0	1.0	-6.5	-0.0%	+8.5%	-7.8%
A13 WB	H to G	A130	A1089	15.6	15.4	60.7	15.6	19.0	49.3	0.0	3.6	-11.4	+0.1%	+23.3%	-18.8%
	G to C	A1089	M25 J30	5.3	8.5	37.4	5.6	7.1	46.9	0.3	-1.3	9.5	+5.9%	-15.6%	+25.4%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	8.8	97.0	14.6	8.6	102.2	0.4	-0.2	5.2	+3.0%	-2.3%	+5.4%
	I to J	M2 J1	M2 J4	14.9	8.6	103.9	14.4	8.6	100.9	-0.5	-0.0	-3.0	-3.3%	-0.4%	-2.9%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	9.1	99.6	15.0	9.7	93.1	0.0	0.6	-6.5	+0.0%	+7.0%	-6.5%
	I to D	M2 J1	M25 J2	14.7	21.8	40.6	14.8	15.2	58.2	0.1	-6.5	17.6	+0.4%	-30.0%	+43.5%
M20 EB	E to K	M25 J3	M20 J8	35.2	25.6	82.6	35.2	25.1	84.1	0.0	-0.5	1.5	+0.0%	-1.8%	+1.9%
M20 WB	K to E	M20 J8	M25 J3	35.4	24.7	85.9	35.4	22.9	92.8	0.0	-1.8	6.9	+0.0%	-7.4%	+8.0%

Table D107 – Link Based Journey Time Scenario Comparison (2031 High Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.6	80.2	23.5	17.3	81.6	-0.0	-0.3	1.4	-0.1%	-1.8%	+1.7%
	B to D	M25 J29	M25 J2	18.9	14.1	80.1	18.9	12.3	91.8	-0.0	-1.8	11.6	-0.1%	-12.7%	+14.5%
	D to F	M25 J2	M25 J7	37.4	24.3	92.3	37.4	24.5	91.4	0.0	0.2	-0.8	+0.0%	+0.9%	-0.9%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	28.2	80.4	37.8	28.6	79.4	0.0	0.3	-1.0	+0.0%	+1.2%	-1.2%
	D to B	M25 J2	M25 J29	18.6	22.0	50.9	18.4	14.5	76.6	-0.2	-7.6	25.7	-1.1%	-34.3%	+50.6%
	B to A	M25 J29	M25 J26	23.4	16.8	83.2	23.3	17.7	79.3	-0.0	0.8	-3.9	-0.1%	+4.9%	-4.7%
A13 EB	C to G	M25 J30	A1089	5.0	4.8	62.5	5.2	4.7	66.9	0.2	-0.2	4.4	+3.1%	-3.8%	+7.1%
	G to H	A1089	A130	15.7	11.0	86.1	15.7	11.5	81.9	-0.0	0.6	-4.1	-0.0%	+5.0%	-4.8%
A13 WB	H to G	A130	A1089	15.6	10.9	85.5	15.6	12.3	75.8	0.0	1.4	-9.6	+0.1%	+12.8%	-11.3%
	G to C	A1089	M25 J30	5.3	6.0	52.5	5.6	5.5	61.2	0.3	-0.6	8.7	+5.9%	-9.1%	+16.5%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	9.0	94.3	14.6	8.6	102.4	0.4	-0.5	8.1	+3.0%	-5.2%	+8.6%
	I to J	M2 J1	M2 J4	14.9	8.5	105.8	14.4	8.3	103.9	-0.5	-0.1	-1.8	-3.3%	-1.6%	-1.7%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.5	106.6	15.0	8.6	104.6	0.0	0.2	-2.1	+0.0%	+2.0%	-1.9%
	I to D	M2 J1	M25 J2	14.7	11.6	76.2	14.8	9.1	97.0	0.1	-2.5	20.8	+0.4%	-21.2%	+27.3%
M20 EB	E to K	M25 J3	M20 J8	35.2	24.3	87.0	35.2	23.2	90.9	0.0	-1.1	3.9	+0.0%	-4.3%	+4.5%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.3	104.8	35.4	20.0	106.2	0.0	-0.3	1.5	+0.0%	-1.4%	+1.4%

Table D108 – Link Based Journey Time Scenario Comparison (2031 High Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	20.5	68.9	23.5	20.9	67.5	-0.0	0.4	-1.4	-0.1%	+1.9%	-2.0%
	B to D	M25 J29	M25 J2	18.9	17.1	66.4	18.9	12.7	89.5	-0.0	-4.4	23.0	-0.1%	-25.8%	+34.7%
	D to F	M25 J2	M25 J7	37.4	22.9	97.9	37.4	23.4	95.7	0.0	0.5	-2.2	+0.0%	+2.3%	-2.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	32.0	70.9	37.8	32.6	69.7	0.0	0.6	-1.2	+0.0%	+1.8%	-1.7%
	D to B	M25 J2	M25 J29	18.6	26.9	41.6	18.4	15.7	70.5	-0.2	-11.2	28.9	-1.1%	-41.6%	+69.5%
	B to A	M25 J29	M25 J26	23.4	15.9	88.0	23.3	16.5	85.1	-0.0	0.5	-2.9	-0.1%	+3.4%	-3.3%
A13 EB	C to G	M25 J30	A1089	5.0	8.4	36.2	5.2	6.4	48.5	0.2	-1.9	12.3	+3.1%	-23.2%	+34.1%
	G to H	A1089	A130	15.7	12.3	76.6	15.7	15.0	62.7	-0.0	2.7	-13.9	-0.0%	+22.1%	-18.1%
A13 WB	H to G	A130	A1089	15.6	11.3	82.5	15.6	13.7	68.4	0.0	2.3	-14.0	+0.1%	+20.6%	-17.0%
	G to C	A1089	M25 J30	5.3	6.0	52.6	5.6	5.1	66.2	0.3	-1.0	13.6	+5.9%	-15.8%	+25.8%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	15.3	55.5	14.6	10.3	84.8	0.4	-5.0	29.2	+3.0%	-32.5%	+52.7%
	I to J	M2 J1	M2 J4	14.9	9.6	92.9	14.4	13.1	66.0	-0.5	3.5	-26.9	-3.3%	+36.2%	-29.0%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.7	103.4	15.0	8.9	101.8	0.0	0.1	-1.6	+0.0%	+1.5%	-1.5%
	I to D	M2 J1	M25 J2	14.7	13.5	65.4	14.8	10.6	83.9	0.1	-2.9	18.5	+0.4%	-21.7%	+28.2%
M20 EB	E to K	M25 J3	M20 J8	35.2	34.5	61.3	35.2	35.0	60.3	0.0	0.6	-1.0	+0.0%	+1.6%	-1.6%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.2	105.1	35.4	20.0	106.2	0.0	-0.2	1.1	+0.0%	-1.1%	+1.1%

Table D109 – Route Based Journey Time Comparison North to South Movements (2031 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.1	68.9	54.0	62.2	67.8	55.0	0.1	-1.2	1.0	+0.1%	-1.7%	+1.8%
1 to 6	Cheshunt	Godstone	92.0	92.0	60.0	92.0	91.4	60.3	-0.0	-0.6	0.4	-0.0%	-0.6%	+0.6%
1 to 7	Cheshunt	Southfleet	61.0	64.3	57.0	61.1	60.6	60.4	0.1	-3.6	3.5	+0.1%	-5.6%	+6.1%
1 to 8	Cheshunt	Maidstone	88.4	82.7	64.1	88.4	78.2	67.8	-0.0	-4.5	3.6	-0.0%	-5.4%	+5.7%
1 to 9	Cheshunt	Rochester	76.8	87.1	52.9	71.1	79.0	54.0	-5.6	-8.1	1.1	-7.4%	-9.3%	+2.1%
1 to 10	Cheshunt	Rainham	92.7	88.3	63.0	88.0	79.2	66.6	-4.6	-9.1	3.7	-5.0%	-10.3%	+5.9%
2 to 5	Romford	Bexley	31.8	52.0	36.7	31.9	50.2	38.1	0.1	-1.8	1.4	+0.2%	-3.5%	+3.8%
2 to 6	Romford	Godstone	61.7	75.1	49.2	61.6	73.9	50.1	-0.0	-1.2	0.8	-0.0%	-1.6%	+1.6%
2 to 7	Romford	Southfleet	30.7	47.3	38.9	30.8	43.1	42.9	0.1	-4.2	3.9	+0.3%	-9.0%	+10.1%
2 to 8	Romford	Maidstone	58.1	65.8	53.0	58.1	60.7	57.4	-0.0	-5.1	4.4	-0.0%	-7.8%	+8.4%
2 to 9	Romford	Rochester	45.3	70.6	38.5	47.7	61.4	46.7	2.5	-9.2	8.2	+5.5%	-13.1%	+21.3%
2 to 10	Romford	Rainham	62.4	71.4	52.4	63.8	61.7	62.1	1.4	-9.7	9.7	+2.3%	-13.6%	+18.4%
3 to 5	Brentwood	Bexley	33.3	40.5	49.4	33.4	39.0	51.3	0.1	-1.4	1.9	+0.2%	-3.5%	+3.8%
3 to 6	Brentwood	Godstone	63.2	63.5	59.7	63.2	62.7	60.5	-0.0	-0.8	0.8	-0.0%	-1.3%	+1.3%
3 to 7	Brentwood	Southfleet	32.3	35.8	54.1	32.3	31.9	60.8	0.1	-3.8	6.6	+0.3%	-10.7%	+12.3%
3 to 8	Brentwood	Maidstone	59.6	54.2	66.0	59.6	49.5	72.3	-0.0	-4.7	6.2	-0.0%	-8.6%	+9.4%
3 to 9	Brentwood	Rochester	48.0	58.6	49.1	42.4	50.3	50.5	-5.6	-8.3	1.4	-11.7%	-14.2%	+2.8%
3 to 10	Brentwood	Rainham	63.9	59.8	64.1	59.3	50.5	70.4	-4.6	-9.3	6.3	-7.3%	-15.5%	+9.8%
4 to 5	Basildon	Bexley	39.1	51.8	45.4	39.2	47.3	49.7	0.0	-4.5	4.4	+0.1%	-8.7%	+9.6%
4 to 6	Basildon	Godstone	69.0	74.8	55.3	69.0	71.0	58.3	-0.0	-3.9	3.0	-0.0%	-5.2%	+5.4%
4 to 7	Basildon	Southfleet	38.1	47.1	48.5	34.2	32.1	64.0	-3.8	-15.0	15.5	-10.0%	-31.8%	+32.0%
4 to 8	Basildon	Maidstone	65.4	65.5	59.9	48.5	54.5	53.4	-16.9	-11.0	-6.5	-25.8%	-16.8%	-10.9%
4 to 9	Basildon	Rochester	53.8	69.9	46.2	36.5	49.5	44.2	-17.3	-20.5	-1.9	-32.2%	-29.3%	-4.1%
4 to 10	Basildon	Rainham	69.7	71.1	58.8	53.4	49.7	64.5	-16.3	-21.5	5.7	-23.4%	-30.2%	+9.7%

Table D110 – Route Based Journey Time Comparison North to South Movements (2031 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.0	53.7	69.3	61.8	52.8	70.2	-0.1	-0.8	0.9	-0.2%	-1.5%	+1.3%
1 to 6	Cheshunt	Godstone	91.5	71.2	77.2	91.4	70.1	78.2	-0.1	-1.0	1.0	-0.2%	-1.4%	+1.3%
1 to 7	Cheshunt	Southfleet	60.9	52.1	70.1	60.8	50.9	71.7	-0.0	-1.2	1.6	-0.1%	-2.3%	+2.3%
1 to 8	Cheshunt	Maidstone	88.3	68.1	77.8	82.5	66.7	74.2	-5.7	-1.3	-3.6	-6.5%	-2.0%	-4.6%
1 to 9	Cheshunt	Rochester	80.9	68.7	70.7	76.4	62.8	73.0	-4.5	-5.9	2.3	-5.6%	-8.5%	+3.2%
1 to 10	Cheshunt	Rainham	91.7	74.2	74.1	86.9	68.0	76.7	-4.8	-6.2	2.6	-5.2%	-8.4%	+3.5%
2 to 5	Romford	Bexley	37.8	42.4	53.5	35.4	40.5	52.4	-2.4	-1.9	-1.1	-6.3%	-4.4%	-2.0%
2 to 6	Romford	Godstone	67.4	59.9	67.5	65.0	57.9	67.4	-2.4	-2.1	-0.1	-3.6%	-3.5%	-0.1%
2 to 7	Romford	Southfleet	36.7	40.9	53.9	34.4	38.6	53.5	-2.3	-2.3	-0.4	-6.3%	-5.5%	-0.8%
2 to 8	Romford	Maidstone	64.1	56.8	67.7	56.1	54.4	61.8	-8.0	-2.4	-5.8	-12.5%	-4.2%	-8.6%
2 to 9	Romford	Rochester	56.8	57.4	59.4	50.0	50.5	59.4	-6.8	-6.9	0.0	-12.0%	-12.0%	+0.1%
2 to 10	Romford	Rainham	67.5	63.0	64.3	60.5	55.7	65.2	-7.0	-7.3	0.8	-10.4%	-11.6%	+1.3%
3 to 5	Brentwood	Bexley	32.5	32.6	59.8	32.5	30.9	63.1	-0.1	-1.8	3.3	-0.2%	-5.4%	+5.5%
3 to 6	Brentwood	Godstone	62.1	50.1	74.3	62.0	48.2	77.2	-0.1	-2.0	2.9	-0.1%	-3.9%	+4.0%
3 to 7	Brentwood	Southfleet	31.4	31.1	60.7	31.5	28.9	65.3	0.0	-2.1	4.6	+0.1%	-6.9%	+7.5%
3 to 8	Brentwood	Maidstone	58.8	47.0	75.0	53.2	44.8	71.2	-5.6	-2.3	-3.8	-9.6%	-4.8%	-5.0%
3 to 9	Brentwood	Rochester	51.7	47.6	65.2	47.1	40.8	69.2	-4.6	-6.7	4.0	-8.9%	-14.2%	+6.1%
3 to 10	Brentwood	Rainham	62.2	53.2	70.2	57.5	46.0	75.0	-4.7	-7.2	4.8	-7.5%	-13.5%	+6.9%
4 to 5	Basildon	Bexley	39.1	36.5	64.4	39.1	34.5	67.9	-0.0	-2.0	3.6	-0.1%	-5.4%	+5.6%
4 to 6	Basildon	Godstone	68.7	54.0	76.3	68.7	51.8	79.5	-0.0	-2.1	3.1	-0.1%	-4.0%	+4.1%
4 to 7	Basildon	Southfleet	38.1	34.9	65.4	33.4	27.0	74.3	-4.7	-8.0	8.9	-12.3%	-22.8%	+13.7%
4 to 8	Basildon	Maidstone	65.4	50.9	77.1	47.3	42.5	66.8	-18.1	-8.4	-10.3	-27.7%	-16.5%	-13.4%
4 to 9	Basildon	Rochester	58.1	51.5	67.8	41.2	38.6	64.1	-17.0	-12.9	-3.7	-29.2%	-25.1%	-5.4%
4 to 10	Basildon	Rainham	68.8	57.1	72.4	51.7	43.7	70.9	-17.2	-13.3	-1.5	-25.0%	-23.3%	-2.1%

Table D1111 – Route Based Journey Time Comparison North to South Movements (2031 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.4	65.9	56.8	62.3	64.4	58.0	-0.1	-1.5	1.3	-0.1%	-2.3%	+2.2%
1 to 6	Cheshunt	Godstone	92.1	81.8	67.6	92.1	79.5	69.5	-0.0	-2.3	1.9	-0.0%	-2.8%	+2.8%
1 to 7	Cheshunt	Southfleet	61.2	63.9	57.4	61.1	60.8	60.3	-0.0	-3.1	2.9	-0.1%	-4.9%	+5.0%
1 to 8	Cheshunt	Maidstone	88.6	84.6	62.8	82.9	79.9	62.3	-5.6	-4.7	-0.5	-6.4%	-5.5%	-0.9%
1 to 9	Cheshunt	Rochester	76.8	92.9	49.6	71.4	82.6	51.9	-5.4	-10.3	2.3	-7.0%	-11.1%	+4.7%
1 to 10	Cheshunt	Rainham	92.8	103.0	54.1	88.2	92.6	57.1	-4.7	-10.4	3.1	-5.0%	-10.1%	+5.6%
2 to 5	Romford	Bexley	33.1	52.8	37.6	35.6	49.0	43.5	2.5	-3.7	5.9	+7.6%	-7.1%	+15.8%
2 to 6	Romford	Godstone	62.8	68.6	54.9	65.3	64.1	61.1	2.5	-4.5	6.2	+4.0%	-6.6%	+11.3%
2 to 7	Romford	Southfleet	31.8	50.8	37.6	34.3	45.4	45.3	2.5	-5.3	7.7	+7.9%	-10.5%	+20.5%
2 to 8	Romford	Maidstone	59.2	71.4	49.7	56.1	64.5	52.2	-3.1	-6.9	2.5	-5.2%	-9.7%	+4.9%
2 to 9	Romford	Rochester	47.4	79.8	35.7	44.6	67.2	39.8	-2.8	-12.6	4.2	-5.9%	-15.8%	+11.7%
2 to 10	Romford	Rainham	63.4	90.2	42.2	61.3	77.2	47.6	-2.1	-13.0	5.5	-3.3%	-14.4%	+13.0%
3 to 5	Brentwood	Bexley	33.5	44.7	45.0	33.5	41.6	48.3	-0.0	-3.1	3.3	-0.0%	-6.9%	+7.4%
3 to 6	Brentwood	Godstone	63.2	60.6	62.6	63.2	56.7	66.9	-0.0	-3.9	4.3	-0.0%	-6.4%	+6.8%
3 to 7	Brentwood	Southfleet	32.3	42.7	45.3	32.2	38.0	50.9	-0.0	-4.7	5.6	-0.0%	-11.0%	+12.3%
3 to 8	Brentwood	Maidstone	59.6	63.4	56.4	54.0	57.1	56.8	-5.6	-6.3	0.3	-9.4%	-9.9%	+0.6%
3 to 9	Brentwood	Rochester	46.8	72.0	39.0	42.2	59.8	42.4	-4.6	-12.1	3.3	-9.7%	-16.9%	+8.6%
3 to 10	Brentwood	Rainham	63.8	82.2	46.6	59.3	69.8	50.9	-4.6	-12.3	4.3	-7.2%	-15.0%	+9.2%
4 to 5	Basildon	Bexley	36.7	48.4	45.5	36.7	43.2	51.0	-0.0	-5.3	5.5	-0.1%	-10.8%	+12.1%
4 to 6	Basildon	Godstone	66.5	64.2	62.1	66.5	58.2	68.5	-0.0	-6.0	6.4	-0.0%	-9.4%	+10.4%
4 to 7	Basildon	Southfleet	35.5	46.4	45.9	33.4	31.6	63.4	-2.1	-14.8	17.5	-5.9%	-31.9%	+38.1%
4 to 8	Basildon	Maidstone	62.9	67.0	56.3	47.3	51.0	55.6	-15.6	-16.0	-0.7	-24.8%	-23.9%	-1.2%
4 to 9	Basildon	Rochester	51.1	75.4	40.7	35.8	53.7	40.0	-15.3	-21.7	-0.7	-30.0%	-28.7%	-1.7%
4 to 10	Basildon	Rainham	67.1	85.8	46.9	52.5	63.8	49.4	-14.6	-22.0	2.5	-21.7%	-25.7%	+5.4%

Table D1112 – Route Based Journey Time Comparison South to North Movements (2031 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.6	61.6	60.0	61.6	58.2	63.4	-0.0	-3.3	3.4	-0.0%	-5.4%	+5.7%
5 to 2	Bexley	Romford	33.4	46.8	42.8	33.4	40.8	49.1	0.0	-6.0	6.4	+0.1%	-12.8%	+14.8%
5 to 3	Bexley	Brentwood	34.4	46.5	44.4	34.3	39.0	52.7	-0.1	-7.5	8.3	-0.4%	-16.1%	+18.6%
5 to 4	Bexley	Basildon	36.4	43.2	50.6	36.5	36.0	60.8	0.0	-7.2	10.2	+0.1%	-16.7%	+20.2%
6 to 1	Godstone	Cheshunt	91.2	82.9	66.0	91.2	79.8	68.5	-0.0	-3.1	2.5	-0.0%	-3.7%	+3.8%
6 to 2	Godstone	Romford	63.0	68.1	55.5	63.0	62.4	60.6	0.0	-5.7	5.1	+0.0%	-8.4%	+9.2%
6 to 3	Godstone	Brentwood	64.0	67.8	56.7	63.9	60.6	63.2	-0.2	-7.2	6.6	-0.3%	-10.6%	+11.6%
6 to 4	Godstone	Basildon	66.1	64.6	61.4	66.1	57.6	68.9	-0.0	-7.0	7.4	-0.0%	-10.8%	+12.1%
7 to 1	Southfleet	Cheshunt	61.1	64.2	57.1	60.6	56.7	64.1	-0.5	-7.5	7.0	-0.8%	-11.6%	+12.2%
7 to 2	Southfleet	Romford	32.9	49.4	40.0	32.5	39.3	49.6	-0.5	-10.1	9.6	-1.4%	-20.5%	+24.1%
7 to 3	Southfleet	Brentwood	34.0	49.1	41.5	33.3	37.5	53.4	-0.6	-11.6	11.8	-1.9%	-23.6%	+28.4%
7 to 4	Southfleet	Basildon	36.0	45.8	47.2	35.5	28.5	74.7	-0.5	-17.3	27.5	-1.5%	-37.8%	+58.4%
8 to 1	Maidstone	Cheshunt	88.1	87.4	60.5	87.9	82.0	64.3	-0.2	-5.4	3.8	-0.2%	-6.2%	+6.3%
8 to 2	Maidstone	Romford	59.9	72.7	49.5	60.0	64.5	55.8	0.0	-8.2	6.3	+0.0%	-11.2%	+12.7%
8 to 3	Maidstone	Brentwood	61.0	72.3	50.6	59.2	63.3	56.2	-1.8	-9.1	5.6	-2.9%	-12.5%	+11.0%
8 to 4	Maidstone	Basildon	63.0	69.1	54.7	50.7	53.9	56.4	-12.3	-15.1	1.6	-19.6%	-21.9%	+3.0%
9 to 1	Rochester	Cheshunt	77.0	95.0	48.7	71.4	76.4	56.1	-5.6	-18.6	7.4	-7.3%	-19.5%	+15.2%
9 to 2	Rochester	Romford	48.8	80.2	36.5	44.3	60.7	43.8	-4.6	-19.6	7.3	-9.3%	-24.4%	+19.9%
9 to 3	Rochester	Brentwood	49.9	79.9	37.5	44.1	56.9	46.5	-5.8	-22.9	9.0	-11.6%	-28.7%	+24.0%
9 to 4	Rochester	Basildon	51.9	76.6	40.7	38.2	46.7	49.1	-13.7	-29.9	8.4	-26.4%	-39.0%	+20.6%
10 to 1	Rainham	Cheshunt	92.6	103.7	53.5	88.5	84.9	62.6	-4.0	-18.8	9.0	-4.4%	-18.2%	+16.8%
10 to 2	Rainham	Romford	64.4	89.0	43.4	61.6	69.1	53.5	-2.7	-19.9	10.1	-4.3%	-22.3%	+23.2%
10 to 3	Rainham	Brentwood	65.4	88.6	44.3	60.9	65.5	55.7	-4.6	-23.1	11.4	-7.0%	-26.1%	+25.8%
10 to 4	Rainham	Basildon	67.5	85.4	47.4	55.3	55.2	60.1	-12.1	-30.2	12.7	-18.0%	-35.3%	+26.9%

Table D113 – Route Based Journey Time Comparison South to North Movements (2031 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	57.7	64.0	61.5	53.6	68.8	-0.0	-4.1	4.8	-0.1%	-7.1%	+7.5%
5 to 2	Bexley	Romford	35.3	43.2	49.0	34.5	38.0	54.4	-0.8	-5.2	5.4	-2.3%	-12.0%	+11.1%
5 to 3	Bexley	Brentwood	32.3	40.0	48.4	32.1	34.2	56.3	-0.2	-5.8	7.9	-0.6%	-14.5%	+16.3%
5 to 4	Bexley	Basildon	36.5	41.8	52.3	36.5	34.8	62.8	-0.0	-7.0	10.5	-0.0%	-16.7%	+20.1%
6 to 1	Godstone	Cheshunt	91.5	78.1	70.3	91.4	74.6	73.6	-0.0	-3.6	3.3	-0.0%	-4.6%	+4.7%
6 to 2	Godstone	Romford	65.2	63.7	61.4	64.3	59.0	65.5	-0.8	-4.7	4.1	-1.2%	-7.4%	+6.6%
6 to 3	Godstone	Brentwood	62.2	60.5	61.7	62.0	55.2	67.4	-0.2	-5.3	5.7	-0.3%	-8.8%	+9.3%
6 to 4	Godstone	Basildon	66.4	62.3	63.9	66.4	55.8	71.3	-0.0	-6.5	7.4	-0.0%	-10.4%	+11.6%
7 to 1	Southfleet	Cheshunt	60.7	56.2	64.7	60.6	51.6	70.5	-0.0	-4.6	5.7	-0.1%	-8.2%	+8.8%
7 to 2	Southfleet	Romford	34.3	41.8	49.3	33.5	36.0	55.8	-0.8	-5.8	6.5	-2.3%	-13.8%	+13.2%
7 to 3	Southfleet	Brentwood	31.3	38.6	48.7	31.1	32.2	58.0	-0.2	-6.3	9.2	-0.6%	-16.4%	+18.9%
7 to 4	Southfleet	Basildon	35.5	40.4	52.8	35.5	27.4	77.8	-0.1	-13.1	25.0	-0.2%	-32.3%	+47.4%
8 to 1	Maidstone	Cheshunt	88.1	81.5	64.8	83.8	77.1	65.2	-4.2	-4.3	0.3	-4.8%	-5.3%	+0.5%
8 to 2	Maidstone	Romford	61.8	67.0	55.4	56.8	61.4	55.5	-5.0	-5.6	0.1	-8.1%	-8.3%	+0.2%
8 to 3	Maidstone	Brentwood	58.8	63.8	55.3	55.0	55.3	59.7	-3.8	-8.5	4.4	-6.5%	-13.4%	+7.9%
8 to 4	Maidstone	Basildon	63.0	65.6	57.6	50.7	50.7	59.9	-12.3	-14.9	2.3	-19.6%	-22.7%	+4.0%
9 to 1	Rochester	Cheshunt	76.9	78.8	58.6	72.9	67.4	65.0	-4.0	-11.5	6.4	-5.2%	-14.5%	+10.9%
9 to 2	Rochester	Romford	50.7	64.3	47.3	45.9	51.6	53.3	-4.8	-12.7	6.1	-9.5%	-19.8%	+12.8%
9 to 3	Rochester	Brentwood	47.7	61.1	46.8	44.1	45.5	58.2	-3.6	-15.6	11.4	-7.5%	-25.6%	+24.3%
9 to 4	Rochester	Basildon	51.9	63.0	49.4	39.8	41.0	58.3	-12.1	-22.0	8.8	-23.3%	-35.0%	+17.9%
10 to 1	Rainham	Cheshunt	91.6	80.7	68.1	87.6	69.0	76.1	-4.0	-11.7	8.0	-4.4%	-14.5%	+11.8%
10 to 2	Rainham	Romford	65.3	66.2	59.2	60.6	53.3	68.2	-4.8	-12.9	9.0	-7.3%	-19.5%	+15.1%
10 to 3	Rainham	Brentwood	62.4	63.0	59.4	58.8	47.2	74.8	-3.6	-15.9	15.4	-5.7%	-25.2%	+26.0%
10 to 4	Rainham	Basildon	66.6	64.8	61.6	54.5	42.6	76.7	-12.1	-22.2	15.1	-18.2%	-34.3%	+24.5%

Table D1114 – Route Based Journey Time Comparison South to North Movements (2031 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	60.8	60.7	61.4	57.9	63.7	-0.0	-2.9	3.0	-0.1%	-4.8%	+5.0%
5 to 2	Bexley	Romford	31.8	48.4	39.5	31.8	43.6	43.7	0.0	-4.7	4.3	+0.0%	-9.8%	+10.9%
5 to 3	Bexley	Brentwood	32.4	49.3	39.5	34.3	39.7	51.8	1.8	-9.6	12.3	+5.6%	-19.4%	+31.1%
5 to 4	Bexley	Basildon	36.5	51.4	42.6	36.5	45.4	48.2	-0.0	-6.0	5.7	-0.0%	-11.8%	+13.3%
6 to 1	Godstone	Cheshunt	91.2	82.0	66.8	91.2	79.5	68.8	-0.0	-2.4	2.0	-0.0%	-3.0%	+3.0%
6 to 2	Godstone	Romford	62.0	69.4	53.6	61.4	65.3	56.4	-0.6	-4.1	2.8	-1.0%	-5.9%	+5.2%
6 to 3	Godstone	Brentwood	62.0	70.5	52.8	63.9	61.4	62.4	1.8	-9.1	9.6	+3.0%	-12.9%	+18.2%
6 to 4	Godstone	Basildon	66.1	72.6	54.6	66.1	67.1	59.1	-0.0	-5.6	4.5	-0.0%	-7.7%	+8.3%
7 to 1	Southfleet	Cheshunt	60.7	57.5	63.3	60.6	53.5	68.0	-0.0	-4.0	4.6	-0.1%	-6.9%	+7.3%
7 to 2	Southfleet	Romford	30.9	45.1	41.1	30.9	39.3	47.1	0.0	-5.8	6.0	+0.0%	-12.8%	+14.6%
7 to 3	Southfleet	Brentwood	31.5	46.0	41.1	33.3	35.4	56.5	1.8	-10.6	15.4	+5.7%	-23.0%	+37.4%
7 to 4	Southfleet	Basildon	35.5	48.1	44.3	36.0	33.2	65.1	0.5	-14.9	20.8	+1.4%	-31.0%	+46.9%
8 to 1	Maidstone	Cheshunt	88.1	78.6	67.3	88.1	75.1	70.4	-0.0	-3.5	3.1	-0.1%	-4.4%	+4.6%
8 to 2	Maidstone	Romford	58.4	66.2	52.9	58.4	60.9	57.5	0.0	-5.3	4.6	+0.0%	-8.0%	+8.6%
8 to 3	Maidstone	Brentwood	59.0	67.1	52.7	60.8	57.0	64.0	1.8	-10.1	11.3	+3.1%	-15.1%	+21.4%
8 to 4	Maidstone	Basildon	63.0	69.2	54.6	51.8	58.7	52.9	-11.3	-10.5	-1.7	-17.9%	-15.2%	-3.2%
9 to 1	Rochester	Cheshunt	75.3	91.0	49.6	71.3	78.2	54.7	-4.0	-12.9	5.1	-5.3%	-14.1%	+10.2%
9 to 2	Rochester	Romford	45.6	78.6	34.8	48.0	62.5	46.1	2.4	-16.1	11.2	+5.2%	-20.5%	+32.3%
9 to 3	Rochester	Brentwood	46.3	79.5	34.9	42.7	57.9	44.2	-3.6	-21.6	9.3	-7.8%	-27.2%	+26.5%
9 to 4	Rochester	Basildon	50.3	81.7	37.0	38.2	55.8	41.1	-12.1	-25.8	4.1	-24.1%	-31.7%	+11.1%
10 to 1	Rainham	Cheshunt	92.6	85.9	64.6	88.5	72.8	73.0	-4.0	-13.2	8.4	-4.3%	-15.3%	+13.0%
10 to 2	Rainham	Romford	62.8	73.6	51.2	61.6	58.9	62.7	-1.2	-14.7	11.5	-1.9%	-19.9%	+22.5%
10 to 3	Rainham	Brentwood	63.4	74.5	51.1	59.8	52.6	68.3	-3.6	-21.9	17.2	-5.7%	-29.4%	+33.7%
10 to 4	Rainham	Basildon	67.4	76.6	52.8	55.3	50.4	65.8	-12.1	-26.2	13.0	-17.9%	-34.2%	+24.6%

D.8 LTAM 2041 High Growth – Outputs to Economic Assessment

D.8.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2041 high growth forecast.

Matrix Total Comparison

D.8.2 Table D115 and Table D116 provide a comparison of the VDM output core scenario matrices and the 2041 high growth matrices for all movements and relevant movements respectively.

Table D115 – Matrix Total Comparison – 2041 High Growth All Movements (PCU's)

Userclass	Time Period	All Movements								
		Core Scenario VDM Output Matrix (2041 DM)	High Growth Scenario (2041 DM)				Core Scenario VDM Output Matrix (2041 DS)	High Growth Scenario (2041 DS)		
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core
Car Employers Business	AM	518,622	574,466	55,844	10.8%	518,739	574,582	55,844	10.8%	
	IP	451,372	499,945	48,573	10.8%	451,366	499,938	48,573	10.8%	
	PM	619,281	686,072	66,791	10.8%	619,319	686,111	66,791	10.8%	
	OP	182,544	202,112	19,568	10.7%	182,520	202,089	19,568	10.7%	
Car Commute Low Income	AM	469,869	521,966	52,097	11.1%	469,848	521,945	52,097	11.1%	
	IP	215,421	239,079	23,658	11.0%	215,439	239,098	23,658	11.0%	
	PM	540,704	600,289	59,585	11.0%	540,722	600,306	59,585	11.0%	
	OP	86,819	96,355	9,536	11.0%	86,818	96,354	9,536	11.0%	
Car Commute Medium Income	AM	953,896	1,059,393	105,497	11.1%	954,020	1,059,516	105,497	11.1%	
	IP	331,180	367,528	36,348	11.0%	331,171	367,519	36,348	11.0%	
	PM	1,039,752	1,154,058	114,307	11.0%	1,039,798	1,154,105	114,307	11.0%	
	OP	133,474	148,127	14,654	11.0%	133,459	148,113	14,654	11.0%	
Car Commute High Income	AM	812,728	902,548	89,820	11.1%	812,641	902,462	89,820	11.1%	
	IP	235,267	261,175	25,909	11.0%	235,285	261,194	25,909	11.0%	
	PM	839,809	932,333	92,525	11.0%	839,980	932,505	92,525	11.0%	
	OP	94,810	105,247	10,437	11.0%	94,804	105,241	10,437	11.0%	
Car Other Low Income	AM	790,899	872,239	81,340	10.3%	791,311	872,651	81,340	10.3%	
	IP	1,401,362	1,545,789	144,427	10.3%	1,401,422	1,545,849	144,427	10.3%	
	PM	1,362,848	1,503,654	140,806	10.3%	1,362,976	1,503,782	140,806	10.3%	
	OP	567,226	625,439	58,213	10.3%	567,112	625,325	58,213	10.3%	
Car Other Medium Income	AM	853,752	940,519	86,767	10.2%	853,995	940,762	86,767	10.2%	
	IP	1,136,476	1,251,846	115,369	10.2%	1,136,583	1,251,952	115,369	10.2%	
	PM	1,393,300	1,535,053	141,753	10.2%	1,393,318	1,535,071	141,754	10.2%	
	OP	460,515	506,994	46,479	10.1%	460,434	506,913	46,479	10.1%	
Car Other High Income	AM	685,036	754,466	69,430	10.1%	685,239	754,669	69,430	10.1%	
	IP	766,206	843,655	77,448	10.1%	766,224	843,672	77,448	10.1%	
	PM	1,059,712	1,167,035	107,323	10.1%	1,059,918	1,167,241	107,323	10.1%	
	OP	311,139	342,328	31,189	10.0%	311,061	342,249	31,189	10.0%	
Car Total	AM	5,084,802	5,625,597	540,794	10.6%	5,085,792	5,626,586	540,794	10.6%	
	IP	4,537,284	5,009,016	471,732	10.4%	4,537,491	5,009,223	471,732	10.4%	
	PM	6,855,405	7,578,494	723,090	10.5%	6,856,030	7,579,120	723,090	10.5%	
	OP	1,836,527	2,026,602	190,075	10.3%	1,836,209	2,026,284	190,075	10.4%	
LGV	AM	1,217,634	1,308,666	91,032	7.5%	1,217,634	1,308,666	91,032	7.5%	
	IP	1,050,371	1,128,785	78,415	7.5%	1,050,371	1,128,785	78,415	7.5%	
	PM	878,550	944,164	65,614	7.5%	878,550	944,164	65,614	7.5%	
	OP	421,851	453,474	31,622	7.5%	421,851	453,474	31,622	7.5%	
HGV	AM	461,489	508,334	46,845	10.2%	461,489	508,334	46,845	10.2%	
	IP	458,881	505,465	46,584	10.2%	458,881	505,465	46,584	10.2%	
	PM	288,966	318,287	29,321	10.1%	288,966	318,287	29,321	10.1%	
	OP	183,109	201,835	18,726	10.2%	183,109	201,835	18,726	10.2%	

Table D116 – Matrix Total Comparison – 2041 High Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2041 DM)	High Growth Scenario (2041 DM)			Core Scenario VDM Output Matrix (2041 DS)	High Growth Scenario (2041 DS)		
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	42,239	46,863	4,624	10.9%	42,368	46,991	4,624	10.9%
	IP	29,699	32,866	3,167	10.7%	29,710	32,877	3,167	10.7%
	PM	42,071	46,628	4,558	10.8%	42,127	46,685	4,558	10.8%
	OP	12,128	13,380	1,252	10.3%	12,108	13,360	1,252	10.3%
Car Commute Low Income	AM	33,269	37,005	3,736	11.2%	33,244	36,979	3,736	11.2%
	IP	18,784	20,851	2,067	11.0%	18,803	20,870	2,067	11.0%
	PM	35,241	39,155	3,914	11.1%	35,258	39,173	3,914	11.1%
	OP	7,428	8,250	822	11.1%	7,427	8,250	822	11.1%
Car Commute Medium Income	AM	70,753	78,827	8,074	11.4%	70,870	78,945	8,074	11.4%
	IP	28,693	31,839	3,146	11.0%	28,685	31,831	3,146	11.0%
	PM	69,494	77,307	7,814	11.2%	69,539	77,352	7,814	11.2%
	OP	11,417	12,675	1,258	11.0%	11,403	12,661	1,258	11.0%
Car Commute High Income	AM	67,828	75,529	7,701	11.4%	67,735	75,436	7,701	11.4%
	IP	24,448	27,131	2,683	11.0%	24,469	27,152	2,683	11.0%
	PM	67,843	75,458	7,615	11.2%	68,016	75,631	7,615	11.2%
	OP	9,806	10,877	1,072	10.9%	9,800	10,872	1,072	10.9%
Car Other Low Income	AM	77,827	86,023	8,196	10.5%	78,251	86,447	8,196	10.5%
	IP	109,256	120,578	11,322	10.4%	109,342	120,663	11,322	10.4%
	PM	113,392	125,395	12,003	10.6%	113,541	125,543	12,003	10.6%
	OP	45,600	50,103	4,503	9.9%	45,517	50,020	4,503	9.9%
Car Other Medium Income	AM	88,455	97,507	9,052	10.2%	88,713	97,765	9,052	10.2%
	IP	105,983	116,523	10,541	9.9%	106,146	116,687	10,541	9.9%
	PM	131,752	145,132	13,380	10.2%	131,809	145,189	13,380	10.2%
	OP	44,322	48,511	4,189	9.5%	44,262	48,451	4,189	9.5%
Car Other High Income	AM	84,550	93,139	8,590	10.2%	84,780	93,369	8,590	10.1%
	IP	87,476	96,087	8,611	9.8%	87,553	96,164	8,611	9.8%
	PM	119,668	131,662	11,995	10.0%	119,930	131,924	11,995	10.0%
	OP	36,958	40,390	3,432	9.3%	36,892	40,325	3,432	9.3%
Car Total	AM	464,920	514,892	49,973	10.7%	465,961	515,933	49,973	10.7%
	IP	404,338	445,874	41,536	10.3%	404,708	446,244	41,536	10.3%
	PM	579,460	640,739	61,279	10.6%	580,219	641,498	61,279	10.6%
	OP	167,658	184,187	16,529	9.9%	167,410	183,939	16,529	9.9%
LGV	AM	145,490	156,207	10,716	7.4%	145,490	156,207	10,716	7.4%
	IP	110,049	118,029	7,980	7.3%	110,049	118,029	7,980	7.3%
	PM	113,424	121,733	8,309	7.3%	113,424	121,733	8,309	7.3%
	OP	42,472	45,672	3,200	7.5%	42,472	45,672	3,200	7.5%
HGV	AM	70,396	77,226	6,829	9.7%	70,396	77,226	6,829	9.7%
	IP	72,543	79,550	7,007	9.7%	72,543	79,550	7,007	9.7%
	PM	43,876	48,118	4,242	9.7%	43,876	48,118	4,242	9.7%
	OP	27,585	30,357	2,772	10.0%	27,585	30,357	2,772	10.0%

Highway Assignment Model (HAM) Convergence Statistics

D.8.3 Table D117 to Table D119 provide the highway assignment model convergence statistics for the 2041 high growth DM forecasts. Table D120 to Table D122 provide the highway assignment model convergence statistics for the 2041 high growth DS forecasts.

Table D117 – HAM Convergence Statistics – 2041 High Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
109	0.0079	0.015	97.9	98.4
110	0.0085	0.015	97.6	98.3
111	0.0073	0.016	97.7	98.5
112	0.0081	0.015	97.6	98.4

Table D118 – HAM Convergence Statistics – 2041 High Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
114	0.0060	0.013	97.6	98.8
115	0.0153	0.0080	97.5	98.7
116	0.0061	0.014	97.8	98.9
117	0.0146	0.0090	97.7	98.9

Table D119 – HAM Convergence Statistics – 2041 High Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
146	0.0088	0.011	97.6	98.3
147	0.0075	0.012	97.7	98.4
148	0.0086	0.012	97.5	98.3
149	0.0076	0.010	97.5	98.4

Table D120 – HAM Convergence Statistics – 2041 High Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
150	0.0080	0.013	98.0	98.5
151	0.0106	0.012	97.7	98.5
152	0.0111	0.012	97.8	98.4
153	0.0107	0.012	98.0	98.6

Table D121 – HAM Convergence Statistics – 2041 High Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
75	0.0079	0.0072	97.7	98.9
76	0.0045	0.0082	98.2	99.0
77	0.0057	0.0064	97.8	99.0
78	0.0051	0.0064	98.0	99.1

Table D122 – HAM Convergence Statistics – 2041 High Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
185	0.0077	0.012	97.5	98.2
186	0.0063	0.010	97.8	98.5
187	0.0063	0.0099	98.0	98.5
188	0.0068	0.011	98.1	98.5

D.8.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

D.8.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D19 to Figure D21 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.

D.8.6 Table D123 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D19 – Actual Flow Comparison Plot – 2041 High Growth DM Vs DS AM Peak



Figure D20 – Actual Flow Comparison Plot – 2041 High Growth DM Vs DS Inter Peak



Figure D21 – Actual Flow Comparison Plot – 2041 High Growth DM Vs DS PM Peak



Table D123 – Cross River Traffic Flows – 2041 High Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	3,079	3,225	146	5%	2,090	2,088	-2	0%	3,331	2,661	-670	-20%	8,500	7,974	-526	-6%
		IP	3,440	2,859	-580	-17%	1,134	921	-213	-19%	3,718	2,351	-1,367	-37%	8,292	6,132	-2,160	-26%
		PM	4,748	4,297	-451	-9%	1,399	1,150	-250	-18%	2,353	1,454	-899	-38%	8,500	6,901	-1,599	-19%
	LTC	AM	0	2,179			0	437			0	1,331			0	3,947		
		IP	0	1,962			0	289			0	1,533			0	3,784		
		PM	0	3,402			0	424			0	1,165			0	4,991		
	Total	AM	3,079	5,404	2,324	75%	2,090	2,525	435	21%	3,331	3,992	661	20%	8,500	11,920	3,420	40%
		IP	3,440	4,822	1,382	40%	1,134	1,210	76	7%	3,718	3,884	166	4%	8,292	9,916	1,624	20%
		PM	4,748	7,698	2,951	62%	1,399	1,574	175	12%	2,353	2,619	266	11%	8,500	11,891	3,391	40%
NB	Dartford	AM	3,713	3,570	-142	-4%	1,743	1,423	-319	-18%	2,356	1,543	-813	-35%	7,811	6,537	-1,275	-16%
		IP	3,053	2,984	-70	-2%	1,235	1,102	-133	-11%	3,343	2,139	-1,204	-36%	7,631	6,225	-1,407	-18%
		PM	4,030	3,948	-82	-2%	1,307	1,113	-194	-15%	2,347	1,510	-837	-36%	7,684	6,571	-1,112	-14%
	LTC	AM	0	2,889			0	638			0	1,231			0	4,758		
		IP	0	1,723			0	316			0	1,589			0	3,628		
		PM	0	1,847			0	301			0	876			0	3,023		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,713	6,460	2,747	74%	1,743	2,061	319	18%	2,356	2,774	418	18%	7,811	11,295	3,484	45%
		IP	3,053	4,706	1,653	54%	1,235	1,418	183	15%	3,343	3,728	385	12%	7,631	9,852	2,221	29%
		PM	4,030	5,795	1,765	44%	1,307	1,414	107	8%	2,347	2,385	39	2%	7,684	9,595	1,911	25%

D.8.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D124 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

Table D124 – Key Corridor Traffic Flows – 2041 High Growth DM Vs DS (Hourly Flows in PCU's)

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,958	9,180	0.87	9,172	9,180	1.00	1,214	15%
		IP	7,550	9,180	0.82	8,656	9,180	0.94	1,106	15%
		PM	7,362	9,180	0.80	8,345	9,180	0.91	983	13%
	M25 J28 to M25 J29 (SB)	AM	7,959	9,115	0.87	7,956	9,180	0.87	-4	0%
		IP	7,881	9,115	0.86	7,982	9,180	0.87	101	1%
		PM	8,180	9,115	0.90	8,309	9,180	0.91	129	2%
B	M25 J4 to M25 J3 (NB)	AM	6,127	6,850	0.89	6,361	6,850	0.93	234	4%
		IP	6,031	6,850	0.88	6,254	6,850	0.91	223	4%
		PM	6,376	6,850	0.93	6,552	6,850	0.96	176	3%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	5,812	6,850	0.85	6,153	6,850	0.90	340	6%
		PM	5,356	6,850	0.78	5,905	6,850	0.86	549	10%
C	A13 A126 to A1012 (EB)	AM	5,178	6,305	0.82	4,459	6,290	0.71	-719	-14%
		IP	5,304	6,284	0.84	4,860	6,273	0.77	-444	-8%
		PM	5,633	6,276	0.90	5,586	6,252	0.89	-46	-1%
	A13 A1012 to A126 (WB)	AM	6,196	6,360	0.97	5,863	6,360	0.92	-333	-5%
		IP	6,028	6,360	0.95	5,157	6,360	0.81	-871	-14%
		PM	5,935	6,360	0.93	4,836	6,360	0.76	-1,099	-19%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,739	6,370	0.74	5,316	6,370	0.83	577	12%
		IP	4,158	6,370	0.65	4,903	6,370	0.77	746	18%
		PM	5,375	6,370	0.84	5,908	6,345	0.93	533	10%
	A13 Manor Way to Orsett Cock (WB)	AM	5,591	6,220	0.90	6,045	6,220	0.97	455	8%
		IP	4,653	6,220	0.75	5,647	6,220	0.91	995	21%
		PM	5,040	6,220	0.81	5,988	6,220	0.96	948	19%
E	A2 A227 to Gravesend East (EB)	AM	6,639	9,210	0.72	5,697	9,195	0.62	-942	-14%
		IP	7,076	9,171	0.77	5,760	9,146	0.63	-1,316	-19%
		PM	8,653	9,172	0.94	8,020	9,152	0.88	-633	-7%
	A2 Gravesend East to A227 (WB)	AM	7,510	7,748	0.97	6,500	7,572	0.86	-1,010	-13%
		IP	6,540	7,668	0.85	5,665	7,441	0.76	-874	-13%
		PM	6,875	7,477	0.92	6,392	7,314	0.87	-483	-7%
F	M2 J1 to M2 J2 (EB)	AM	5,737	8,537	0.67	6,715	8,423	0.80	977	17%
		IP	5,230	8,558	0.61	6,224	8,496	0.73	994	19%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
	M2 J2 to M2 J1 (WB)	PM	6,690	8,579	0.78	8,005	8,497	0.94	1,315	20%
		AM	5,660	9,115	0.62	7,245	9,180	0.79	1,585	28%
		IP	4,743	9,115	0.52	6,103	9,180	0.66	1,360	29%
	PM	5,178	9,115	0.57	5,941	9,180	0.65	762	15%	
G	M20 J3 to M20 J4 (EB)	AM	6,334	9,115	0.69	5,856	9,115	0.64	-478	-8%
		IP	6,400	9,115	0.70	5,747	9,115	0.63	-653	-10%
		PM	8,332	9,115	0.91	7,944	9,115	0.87	-389	-5%
	M20 J4 to M20 J3 (WB)	AM	8,803	9,115	0.97	7,898	9,115	0.87	-905	-10%
		IP	6,097	9,115	0.67	5,012	9,115	0.55	-1,085	-18%
		PM	5,350	9,115	0.59	4,685	9,115	0.51	-665	-12%

DM Vs DS Journey Time Comparisons

- D.8.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.8.9 The link based journey time comparisons for this scenario are presented in Table D125 to Table D127.
- D.8.10 Table D128 to Table D133 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D125 – Link Based Journey Time Scenario Comparison (2041 High Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	22.1	63.8	23.5	20.9	67.4	-0.0	-1.2	3.6	-0.1%	-5.4%	+5.6%
	B to D	M25 J29	M25 J2	18.9	19.2	58.9	18.9	14.7	77.3	-0.0	-4.6	18.4	-0.1%	-23.8%	+31.2%
	D to F	M25 J2	M25 J7	37.4	33.5	67.0	37.4	36.8	61.0	0.0	3.3	-6.0	+0.0%	+9.8%	-8.9%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	31.1	73.1	37.8	31.3	72.5	0.0	0.3	-0.7	+0.0%	+0.9%	-0.9%
	D to B	M25 J2	M25 J29	18.6	27.6	40.6	18.4	20.9	52.9	-0.2	-6.7	12.3	-1.1%	-24.2%	+30.4%
	B to A	M25 J29	M25 J26	23.4	22.1	63.5	23.3	23.1	60.6	-0.0	1.0	-2.9	-0.1%	+4.7%	-4.5%
A13 EB	C to G	M25 J30	A1089	5.0	4.9	62.2	5.2	4.4	70.2	0.2	-0.4	7.9	+3.1%	-8.6%	+12.7%
	G to H	A1089	A130	15.7	12.2	77.6	15.7	13.7	69.0	-0.0	1.5	-8.5	-0.0%	+12.3%	-11.0%
A13 WB	H to G	A130	A1089	15.6	17.0	55.0	15.6	21.2	44.1	0.0	4.2	-10.9	+0.1%	+24.8%	-19.8%
	G to C	A1089	M25 J30	5.3	8.9	35.7	5.6	7.6	43.9	0.3	-1.2	8.2	+5.9%	-13.9%	+23.0%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	9.0	94.3	14.6	8.7	100.9	0.4	-0.3	6.6	+3.0%	-3.7%	+7.0%
	I to J	M2 J1	M2 J4	14.9	8.8	101.7	14.4	8.9	96.8	-0.5	0.2	-5.0	-3.3%	+1.7%	-4.9%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	9.5	95.4	15.0	10.1	89.2	0.0	0.7	-6.1	+0.0%	+6.9%	-6.4%
	I to D	M2 J1	M25 J2	14.7	25.7	34.4	14.8	16.5	53.9	0.1	-9.2	19.5	+0.4%	-36.0%	+56.7%
M20 EB	E to K	M25 J3	M20 J8	35.2	26.1	80.9	35.2	25.6	82.6	0.0	-0.5	1.6	+0.0%	-2.0%	+2.0%
M20 WB	K to E	M20 J8	M25 J3	35.4	27.0	78.6	35.4	24.6	86.3	0.0	-2.4	7.7	+0.0%	-8.9%	+9.8%

Table D126 – Link Based Journey Time Scenario Comparison (2041 High Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	19.6	71.9	23.5	19.7	71.5	-0.0	0.1	-0.3	-0.1%	+0.3%	-0.5%
	B to D	M25 J29	M25 J2	18.9	15.6	72.8	18.9	12.6	89.8	-0.0	-3.0	17.0	-0.1%	-19.0%	+23.3%
	D to F	M25 J2	M25 J7	37.4	27.0	83.2	37.4	27.8	80.6	0.0	0.9	-2.6	+0.0%	+3.2%	-3.1%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	31.3	72.6	37.8	32.1	70.8	0.0	0.8	-1.8	+0.0%	+2.6%	-2.5%
	D to B	M25 J2	M25 J29	18.6	25.5	43.9	18.4	15.7	70.3	-0.2	-9.8	26.5	-1.1%	-38.3%	+60.3%
	B to A	M25 J29	M25 J26	23.4	17.7	79.3	23.3	19.9	70.4	-0.0	2.2	-8.9	-0.1%	+12.5%	-11.2%
A13 EB	C to G	M25 J30	A1089	5.0	5.3	57.3	5.2	4.9	63.3	0.2	-0.4	6.0	+3.1%	-6.6%	+10.4%
	G to H	A1089	A130	15.7	11.2	84.3	15.7	12.3	76.8	-0.0	1.1	-7.5	-0.0%	+9.7%	-8.9%
A13 WB	H to G	A130	A1089	15.6	11.5	81.0	15.6	13.4	69.9	0.0	1.9	-11.1	+0.1%	+16.1%	-13.7%
	G to C	A1089	M25 J30	5.3	7.0	44.9	5.6	6.0	55.9	0.3	-1.1	11.0	+5.9%	-14.9%	+24.5%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	9.4	90.6	14.6	8.7	100.9	0.4	-0.7	10.2	+3.0%	-7.5%	+11.3%
	I to J	M2 J1	M2 J4	14.9	8.6	103.7	14.4	8.5	101.3	-0.5	-0.1	-2.4	-3.3%	-1.0%	-2.3%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.6	104.6	15.0	8.9	101.4	0.0	0.3	-3.1	+0.0%	+3.1%	-3.0%
	I to D	M2 J1	M25 J2	14.7	12.6	70.2	14.8	9.6	92.5	0.1	-3.0	22.3	+0.4%	-23.8%	+31.8%
M20 EB	E to K	M25 J3	M20 J8	35.2	25.6	82.6	35.2	25.1	84.0	0.0	-0.4	1.4	+0.0%	-1.6%	+1.7%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.7	102.6	35.4	20.3	104.8	0.0	-0.4	2.2	+0.0%	-2.1%	+2.1%

Table D127 – Link Based Journey Time Scenario Comparison (2041 High Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	22.6	62.5	23.5	22.1	63.7	-0.0	-0.5	1.2	-0.1%	-2.1%	+2.0%
	B to D	M25 J29	M25 J2	18.9	18.8	60.2	18.9	13.1	86.2	-0.0	-5.7	25.9	-0.1%	-30.1%	+43.1%
	D to F	M25 J2	M25 J7	37.4	23.5	95.6	37.4	24.6	91.1	0.0	1.2	-4.5	+0.0%	+5.0%	-4.7%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	33.1	68.7	37.8	33.8	67.2	0.0	0.7	-1.5	+0.0%	+2.2%	-2.2%
	D to B	M25 J2	M25 J29	18.6	29.6	37.8	18.4	16.5	67.2	-0.2	-13.1	29.4	-1.1%	-44.3%	+77.7%
	B to A	M25 J29	M25 J26	23.4	16.7	84.0	23.3	17.5	79.9	-0.0	0.8	-4.0	-0.1%	+5.0%	-4.8%
A13 EB	C to G	M25 J30	A1089	5.0	8.7	34.8	5.2	6.7	46.4	0.2	-2.0	11.7	+3.1%	-22.8%	+33.6%
	G to H	A1089	A130	15.7	12.6	75.1	15.7	15.5	61.0	-0.0	2.9	-14.1	-0.0%	+23.1%	-18.8%
A13 WB	H to G	A130	A1089	15.6	12.7	73.7	15.6	16.6	56.4	0.0	3.9	-17.2	+0.1%	+30.7%	-23.4%
	G to C	A1089	M25 J30	5.3	6.9	45.9	5.6	5.6	60.1	0.3	-1.3	14.2	+5.9%	-19.1%	+30.9%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	15.1	56.3	14.6	10.5	83.2	0.4	-4.6	26.9	+3.0%	-30.3%	+47.8%
	I to J	M2 J1	M2 J4	14.9	9.9	90.6	14.4	14.3	60.3	-0.5	4.5	-30.3	-3.3%	+45.3%	-33.4%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.9	101.8	15.0	9.1	99.6	0.0	0.2	-2.2	+0.0%	+2.3%	-2.2%
	I to D	M2 J1	M25 J2	14.7	15.3	57.9	14.8	11.2	79.0	0.1	-4.0	21.1	+0.4%	-26.4%	+36.5%
M20 EB	E to K	M25 J3	M20 J8	35.2	36.2	58.3	35.2	36.9	57.2	0.0	0.7	-1.1	+0.0%	+1.9%	-1.9%
M20 WB	K to E	M20 J8	M25 J3	35.4	20.5	103.6	35.4	20.2	104.9	0.0	-0.3	1.4	+0.0%	-1.3%	+1.3%

Table D128 – Route Based Journey Time Comparison North to South Movements (2041 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.6	74.1	50.7	62.7	72.5	51.9	0.1	-1.6	1.2	+0.2%	-2.2%	+2.4%
1 to 6	Cheshunt	Godstone	92.4	99.5	55.7	92.4	98.2	56.5	-0.0	-1.3	0.7	-0.0%	-1.3%	+1.3%
1 to 7	Cheshunt	Southfleet	61.5	68.5	53.9	61.5	64.5	57.3	0.1	-4.0	3.4	+0.1%	-5.8%	+6.3%
1 to 8	Cheshunt	Maidstone	88.8	87.2	61.1	88.8	82.7	64.5	-0.0	-4.6	3.4	-0.0%	-5.3%	+5.5%
1 to 9	Cheshunt	Rochester	77.4	93.0	50.0	71.5	83.4	51.5	-5.9	-9.6	1.5	-7.6%	-10.3%	+3.0%
1 to 10	Cheshunt	Rainham	93.1	94.0	59.4	88.5	84.0	63.2	-4.7	-10.0	3.8	-5.0%	-10.7%	+6.3%
2 to 5	Romford	Bexley	32.3	55.4	35.0	32.2	53.2	36.3	-0.0	-2.1	1.3	-0.1%	-3.9%	+3.9%
2 to 6	Romford	Godstone	62.1	80.8	46.2	61.9	78.9	47.1	-0.2	-1.8	0.9	-0.3%	-2.3%	+2.0%
2 to 7	Romford	Southfleet	31.2	49.7	37.6	31.1	45.2	41.2	-0.1	-4.5	3.6	-0.3%	-9.0%	+9.6%
2 to 8	Romford	Maidstone	58.6	68.5	51.3	58.4	63.4	55.2	-0.2	-5.1	4.0	-0.3%	-7.4%	+7.7%
2 to 9	Romford	Rochester	47.3	74.2	38.3	46.9	65.3	43.1	-0.5	-8.9	4.8	-1.0%	-12.0%	+12.6%
2 to 10	Romford	Rainham	62.8	75.3	50.1	63.8	65.8	58.1	0.9	-9.4	8.0	+1.5%	-12.5%	+16.0%
3 to 5	Brentwood	Bexley	33.4	45.8	43.7	33.5	45.4	44.3	0.1	-0.4	0.5	+0.4%	-0.8%	+1.2%
3 to 6	Brentwood	Godstone	63.2	71.2	53.3	63.2	71.1	53.3	-0.0	-0.1	0.0	-0.0%	-0.1%	+0.1%
3 to 7	Brentwood	Southfleet	32.3	40.1	48.2	32.3	37.4	51.8	0.1	-2.7	3.6	+0.3%	-6.8%	+7.5%
3 to 8	Brentwood	Maidstone	59.6	58.9	60.7	59.6	55.6	64.3	-0.0	-3.3	3.6	-0.0%	-5.7%	+6.0%
3 to 9	Brentwood	Rochester	48.2	64.6	44.8	42.3	56.3	45.1	-5.9	-8.3	0.3	-12.2%	-12.8%	+0.8%
3 to 10	Brentwood	Rainham	63.9	65.7	58.4	59.3	56.9	62.5	-4.6	-8.8	4.1	-7.3%	-13.3%	+7.0%
4 to 5	Basildon	Bexley	39.2	55.2	42.6	39.3	50.0	47.1	0.1	-5.2	4.5	+0.3%	-9.4%	+10.6%
4 to 6	Basildon	Godstone	69.0	80.6	51.4	69.0	75.7	54.6	-0.0	-4.9	3.3	-0.1%	-6.0%	+6.4%
4 to 7	Basildon	Southfleet	38.1	49.6	46.1	34.3	33.7	61.0	-3.8	-15.9	14.9	-10.0%	-32.0%	+32.4%
4 to 8	Basildon	Maidstone	65.4	68.4	57.4	48.6	57.0	51.1	-16.9	-11.3	-6.3	-25.8%	-16.6%	-11.0%
4 to 9	Basildon	Rochester	54.0	74.1	43.8	36.5	52.2	41.9	-17.6	-21.9	-1.9	-32.5%	-29.5%	-4.3%
4 to 10	Basildon	Rainham	69.7	75.1	55.7	53.4	52.8	60.7	-16.3	-22.3	5.0	-23.4%	-29.7%	+8.9%

Table D129 – Route Based Journey Time Comparison North to South Movements (2041 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.9	57.8	64.3	61.7	56.4	65.7	-0.1	-1.3	1.4	-0.2%	-2.3%	+2.2%
1 to 6	Cheshunt	Godstone	91.4	77.7	70.6	91.3	76.6	71.5	-0.1	-1.1	0.9	-0.1%	-1.4%	+1.3%
1 to 7	Cheshunt	Southfleet	60.8	55.9	65.2	60.7	54.3	67.1	-0.0	-1.6	1.9	-0.1%	-2.9%	+2.9%
1 to 8	Cheshunt	Maidstone	88.1	72.6	72.8	82.4	70.9	69.7	-5.7	-1.7	-3.1	-6.5%	-2.3%	-4.2%
1 to 9	Cheshunt	Rochester	81.0	73.8	65.9	76.3	66.8	68.5	-4.7	-6.9	2.6	-5.8%	-9.4%	+4.0%
1 to 10	Cheshunt	Rainham	91.5	79.5	69.1	86.8	72.4	71.9	-4.8	-7.1	2.8	-5.2%	-8.9%	+4.1%
2 to 5	Romford	Bexley	37.8	45.1	50.3	35.4	42.3	50.3	-2.4	-2.8	-0.0	-6.3%	-6.2%	-0.1%
2 to 6	Romford	Godstone	67.4	65.1	62.1	65.0	62.5	62.4	-2.4	-2.6	0.3	-3.5%	-4.0%	+0.4%
2 to 7	Romford	Southfleet	36.7	43.3	50.9	34.4	40.2	51.4	-2.3	-3.1	0.5	-6.2%	-7.1%	+1.0%
2 to 8	Romford	Maidstone	64.1	60.0	64.1	56.1	56.8	59.3	-8.0	-3.2	-4.8	-12.4%	-5.3%	-7.6%
2 to 9	Romford	Rochester	56.9	61.1	55.9	50.0	52.7	56.9	-6.9	-8.4	1.0	-12.2%	-13.7%	+1.8%
2 to 10	Romford	Rainham	67.5	66.8	60.6	60.5	58.3	62.3	-7.0	-8.5	1.7	-10.4%	-12.8%	+2.7%
3 to 5	Brentwood	Bexley	33.2	34.4	57.9	32.5	31.9	61.0	-0.7	-2.5	3.1	-2.2%	-7.2%	+5.3%
3 to 6	Brentwood	Godstone	62.7	54.3	69.3	62.0	52.1	71.4	-0.7	-2.2	2.1	-1.2%	-4.1%	+3.1%
3 to 7	Brentwood	Southfleet	32.1	32.5	59.2	31.5	29.8	63.3	-0.6	-2.7	4.1	-2.0%	-8.4%	+7.0%
3 to 8	Brentwood	Maidstone	59.5	49.2	72.5	53.2	46.4	68.7	-6.3	-2.8	-3.8	-10.6%	-5.7%	-5.2%
3 to 9	Brentwood	Rochester	52.3	50.4	62.4	47.1	42.3	66.7	-5.3	-8.0	4.4	-10.1%	-16.0%	+7.0%
3 to 10	Brentwood	Rainham	62.9	56.1	67.3	57.5	47.9	72.0	-5.4	-8.2	4.8	-8.5%	-14.6%	+7.1%
4 to 5	Basildon	Bexley	39.6	39.7	59.9	39.6	35.7	66.6	-0.0	-4.0	6.7	-0.1%	-10.1%	+11.2%
4 to 6	Basildon	Godstone	69.2	59.6	69.6	69.1	55.9	74.3	-0.0	-3.8	4.7	-0.1%	-6.3%	+6.7%
4 to 7	Basildon	Southfleet	38.5	37.9	61.0	33.4	27.9	71.8	-5.1	-10.0	10.8	-13.3%	-26.3%	+17.6%
4 to 8	Basildon	Maidstone	65.9	54.6	72.5	47.3	44.3	64.0	-18.6	-10.2	-8.5	-28.2%	-18.8%	-11.7%
4 to 9	Basildon	Rochester	58.8	55.7	63.3	41.2	40.2	61.4	-17.6	-15.5	-1.9	-29.9%	-27.8%	-3.0%
4 to 10	Basildon	Rainham	69.3	61.4	67.7	51.7	45.8	67.7	-17.6	-15.6	-0.1	-25.5%	-25.4%	-0.1%

Table D130 – Route Based Journey Time Comparison North to South Movements (2041 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.4	71.0	52.7	62.4	68.1	54.9	-0.0	-2.9	2.2	-0.1%	-4.1%	+4.2%
1 to 6	Cheshunt	Godstone	92.2	87.1	63.5	92.1	83.6	66.1	-0.0	-3.5	2.6	-0.1%	-4.0%	+4.1%
1 to 7	Cheshunt	Southfleet	61.2	68.5	53.7	61.2	63.7	57.6	-0.0	-4.7	3.9	-0.1%	-6.9%	+7.3%
1 to 8	Cheshunt	Maidstone	88.6	90.0	59.1	83.0	84.3	59.1	-5.6	-5.7	-0.0	-6.4%	-6.3%	-0.1%
1 to 9	Cheshunt	Rochester	76.5	98.1	46.8	71.9	86.5	49.9	-4.6	-11.6	3.1	-6.0%	-11.8%	+6.6%
1 to 10	Cheshunt	Rainham	92.9	108.9	51.2	88.2	97.8	54.1	-4.7	-11.0	2.9	-5.0%	-10.1%	+5.7%
2 to 5	Romford	Bexley	32.9	56.4	35.0	35.3	52.9	40.1	2.4	-3.5	5.0	+7.2%	-6.3%	+14.3%
2 to 6	Romford	Godstone	62.7	72.7	51.8	65.2	68.4	57.2	2.5	-4.3	5.4	+3.9%	-5.9%	+10.4%
2 to 7	Romford	Southfleet	31.7	54.0	35.3	34.2	48.5	42.3	2.5	-5.5	7.1	+7.8%	-10.2%	+20.0%
2 to 8	Romford	Maidstone	59.1	75.5	47.0	56.1	69.0	48.8	-3.0	-6.5	1.8	-5.0%	-8.6%	+3.9%
2 to 9	Romford	Rochester	47.0	83.6	33.7	45.1	71.2	38.0	-1.9	-12.4	4.3	-4.1%	-14.9%	+12.6%
2 to 10	Romford	Rainham	63.3	94.9	40.0	61.4	82.5	44.6	-1.9	-12.4	4.6	-3.1%	-13.1%	+11.5%
3 to 5	Brentwood	Bexley	33.4	50.8	39.5	33.3	46.6	42.9	-0.1	-4.2	3.4	-0.4%	-8.2%	+8.6%
3 to 6	Brentwood	Godstone	63.2	67.1	56.5	63.2	62.2	61.0	-0.0	-4.9	4.5	-0.0%	-7.3%	+7.9%
3 to 7	Brentwood	Southfleet	32.3	48.4	40.0	32.2	42.3	45.8	-0.0	-6.1	5.8	-0.0%	-12.7%	+14.5%
3 to 8	Brentwood	Maidstone	59.6	69.9	51.2	54.0	62.8	51.6	-5.6	-7.1	0.4	-9.4%	-10.1%	+0.8%
3 to 9	Brentwood	Rochester	46.9	78.2	36.0	47.9	64.4	44.7	1.0	-13.8	8.7	+2.2%	-17.7%	+24.2%
3 to 10	Brentwood	Rainham	63.8	89.4	42.9	59.3	76.3	46.6	-4.6	-13.0	3.7	-7.1%	-14.6%	+8.7%
4 to 5	Basildon	Bexley	36.7	54.0	40.7	36.7	49.1	44.8	-0.0	-4.9	4.1	-0.0%	-9.1%	+10.1%
4 to 6	Basildon	Godstone	66.5	70.1	56.8	66.5	64.6	61.7	-0.0	-5.5	4.9	-0.0%	-7.9%	+8.6%
4 to 7	Basildon	Southfleet	35.5	51.5	41.4	33.4	35.9	55.9	-2.1	-15.6	14.5	-5.9%	-30.3%	+35.0%
4 to 8	Basildon	Maidstone	62.9	73.0	51.7	47.3	57.1	49.7	-15.6	-15.8	-2.0	-24.8%	-21.7%	-3.9%
4 to 9	Basildon	Rochester	50.8	81.1	37.6	36.2	59.3	36.6	-14.6	-21.8	-0.9	-28.7%	-26.9%	-2.4%
4 to 10	Basildon	Rainham	67.1	92.4	43.5	52.5	70.6	44.6	-14.5	-21.8	1.1	-21.7%	-23.6%	+2.5%

Table D131 – Route Based Journey Time Comparison South to North Movements (2041 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	65.8	56.2	61.6	61.9	59.7	0.0	-3.9	3.5	+0.0%	-5.9%	+6.3%
5 to 2	Bexley	Romford	33.3	49.5	40.4	33.4	42.3	47.4	0.1	-7.2	7.0	+0.2%	-14.6%	+17.3%
5 to 3	Bexley	Brentwood	34.4	49.8	41.4	34.3	41.8	49.2	-0.1	-8.0	7.8	-0.4%	-16.1%	+18.8%
5 to 4	Bexley	Basildon	36.4	48.2	45.3	36.5	39.1	56.0	0.1	-9.1	10.6	+0.2%	-18.8%	+23.4%
6 to 1	Godstone	Cheshunt	91.2	89.4	61.2	91.2	86.3	63.4	-0.0	-3.1	2.2	-0.1%	-3.5%	+3.6%
6 to 2	Godstone	Romford	63.0	73.2	51.7	63.0	66.7	56.7	-0.0	-6.5	5.0	-0.0%	-8.9%	+9.8%
6 to 3	Godstone	Brentwood	64.0	73.5	52.3	63.9	66.1	57.9	-0.2	-7.3	5.6	-0.3%	-10.0%	+10.8%
6 to 4	Godstone	Basildon	66.1	71.9	55.2	66.1	63.5	62.5	-0.0	-8.4	7.3	-0.0%	-11.7%	+13.2%
7 to 1	Southfleet	Cheshunt	61.2	68.1	53.9	60.6	60.2	60.4	-0.6	-7.9	6.5	-0.9%	-11.6%	+12.0%
7 to 2	Southfleet	Romford	33.0	51.9	38.1	32.5	40.6	47.9	-0.5	-11.2	9.8	-1.5%	-21.7%	+25.7%
7 to 3	Southfleet	Brentwood	34.0	52.1	39.1	33.3	40.1	49.9	-0.7	-12.0	10.7	-2.0%	-23.1%	+27.4%
7 to 4	Southfleet	Basildon	36.1	50.6	42.8	35.5	30.7	69.4	-0.6	-19.9	26.7	-1.6%	-39.4%	+62.3%
8 to 1	Maidstone	Cheshunt	88.1	95.7	55.3	88.1	88.6	59.6	-0.1	-7.1	4.4	-0.1%	-7.4%	+7.9%
8 to 2	Maidstone	Romford	59.9	79.4	45.3	59.9	69.0	52.1	0.0	-10.4	6.8	+0.0%	-13.1%	+15.1%
8 to 3	Maidstone	Brentwood	61.0	79.7	45.9	60.8	68.5	53.3	-0.2	-11.2	7.4	-0.3%	-14.1%	+16.0%
8 to 4	Maidstone	Basildon	63.0	78.1	48.4	50.7	60.1	50.6	-12.3	-18.0	2.2	-19.6%	-23.0%	+4.5%
9 to 1	Rochester	Cheshunt	75.5	104.6	43.3	71.4	81.2	52.7	-4.1	-23.4	9.4	-5.4%	-22.3%	+21.8%
9 to 2	Rochester	Romford	47.3	88.4	32.1	44.3	63.7	41.7	-3.0	-24.7	9.6	-6.3%	-28.0%	+30.0%
9 to 3	Rochester	Brentwood	48.3	88.6	32.7	42.6	61.0	41.9	-5.6	-27.6	9.2	-11.7%	-31.1%	+28.2%
9 to 4	Rochester	Basildon	50.3	87.0	34.7	38.2	50.6	45.3	-12.1	-36.5	10.6	-24.1%	-41.9%	+30.5%
10 to 1	Rainham	Cheshunt	92.6	114.1	48.7	88.5	91.0	58.4	-4.0	-23.2	9.7	-4.4%	-20.3%	+20.0%
10 to 2	Rainham	Romford	64.4	97.9	39.5	61.4	73.4	50.2	-3.0	-24.5	10.8	-4.6%	-25.0%	+27.3%
10 to 3	Rainham	Brentwood	65.4	98.2	40.0	59.8	70.8	50.7	-5.6	-27.4	10.7	-8.6%	-27.9%	+26.8%
10 to 4	Rainham	Basildon	67.5	96.6	41.9	55.3	60.3	55.1	-12.1	-36.3	13.1	-18.0%	-37.5%	+31.4%

Table D132 – Route Based Journey Time Comparison South to North Movements (2041 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	61.5	60.0	61.5	58.1	63.5	0.0	-3.4	3.5	+0.1%	-5.5%	+5.9%
5 to 2	Bexley	Romford	37.1	45.8	48.5	34.5	40.4	51.2	-2.6	-5.4	2.6	-7.1%	-11.9%	+5.4%
5 to 3	Bexley	Brentwood	32.3	43.3	44.8	34.1	35.9	57.0	1.8	-7.4	12.2	+5.5%	-17.0%	+27.2%
5 to 4	Bexley	Basildon	36.4	45.3	48.3	36.5	38.0	57.5	0.1	-7.2	9.3	+0.2%	-16.0%	+19.2%
6 to 1	Godstone	Cheshunt	91.5	85.3	64.4	91.3	83.6	65.5	-0.2	-1.7	1.1	-0.2%	-1.9%	+1.8%
6 to 2	Godstone	Romford	67.0	69.4	58.0	64.3	63.6	60.7	-2.7	-5.8	2.7	-4.0%	-8.3%	+4.7%
6 to 3	Godstone	Brentwood	62.2	66.9	55.8	64.0	59.1	64.9	1.8	-7.7	9.1	+2.9%	-11.6%	+16.4%
6 to 4	Godstone	Basildon	66.4	68.8	57.9	66.4	61.3	65.0	-0.0	-7.6	7.1	-0.0%	-11.0%	+12.3%
7 to 1	Southfleet	Cheshunt	60.7	61.0	59.7	60.5	57.4	63.2	-0.2	-3.5	3.5	-0.3%	-5.8%	+5.8%
7 to 2	Southfleet	Romford	36.2	45.1	48.2	33.5	37.5	53.7	-2.7	-7.6	5.5	-7.4%	-17.0%	+11.5%
7 to 3	Southfleet	Brentwood	31.3	42.6	44.2	33.2	33.0	60.4	1.8	-9.6	16.2	+5.9%	-22.6%	+36.7%
7 to 4	Southfleet	Basildon	35.5	44.5	47.9	35.5	28.4	74.9	-0.1	-16.1	27.0	-0.2%	-36.2%	+56.5%
8 to 1	Maidstone	Cheshunt	88.1	88.7	59.6	84.0	82.0	61.5	-4.1	-6.8	1.9	-4.7%	-7.6%	+3.2%
8 to 2	Maidstone	Romford	63.7	73.0	52.3	56.9	64.1	53.3	-6.8	-9.0	1.0	-10.6%	-12.3%	+1.9%
8 to 3	Maidstone	Brentwood	58.9	70.5	50.1	55.1	58.0	57.0	-3.8	-12.5	6.9	-6.4%	-17.7%	+13.7%
8 to 4	Maidstone	Basildon	63.0	72.5	52.2	50.8	53.4	57.1	-12.2	-19.1	5.0	-19.4%	-26.4%	+9.5%
9 to 1	Rochester	Cheshunt	76.9	85.6	54.0	73.0	72.2	60.7	-4.0	-13.4	6.7	-5.2%	-15.7%	+12.4%
9 to 2	Rochester	Romford	52.5	69.9	45.1	45.9	54.2	50.7	-6.7	-15.6	5.6	-12.7%	-22.4%	+12.5%
9 to 3	Rochester	Brentwood	47.8	67.3	42.6	44.1	48.2	54.9	-3.7	-19.1	12.3	-7.7%	-28.4%	+29.0%
9 to 4	Rochester	Basildon	51.9	69.3	44.9	39.8	43.5	54.8	-12.1	-25.8	9.9	-23.3%	-37.2%	+22.1%
10 to 1	Rainham	Cheshunt	91.6	87.5	62.8	87.6	73.7	71.3	-4.0	-13.8	8.5	-4.4%	-15.8%	+13.6%
10 to 2	Rainham	Romford	67.2	71.8	56.1	60.6	55.8	65.1	-6.7	-16.0	9.0	-9.9%	-22.3%	+16.0%
10 to 3	Rainham	Brentwood	62.4	69.3	54.1	58.8	49.8	70.9	-3.7	-19.5	16.8	-5.9%	-28.2%	+31.1%
10 to 4	Rainham	Basildon	66.6	71.3	56.0	54.5	45.1	72.4	-12.1	-26.2	16.4	-18.2%	-36.7%	+29.3%

Table D133 – Route Based Journey Time Comparison South to North Movements (2041 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	64.3	57.4	61.5	61.5	59.9	-0.0	-2.8	2.6	-0.1%	-4.3%	+4.5%
5 to 2	Bexley	Romford	31.8	51.2	37.3	31.8	45.8	41.7	-0.0	-5.5	4.4	-0.0%	-10.7%	+11.9%
5 to 3	Bexley	Brentwood	33.4	52.4	38.3	34.3	42.5	48.3	0.8	-9.9	10.1	+2.5%	-18.8%	+26.3%
5 to 4	Bexley	Basildon	36.5	55.5	39.4	36.5	48.1	45.5	-0.0	-7.4	6.1	-0.0%	-13.4%	+15.5%
6 to 1	Godstone	Cheshunt	91.2	86.7	63.1	91.2	84.4	64.8	-0.0	-2.3	1.7	-0.1%	-2.7%	+2.7%
6 to 2	Godstone	Romford	62.9	73.3	51.5	62.1	68.5	54.4	-0.8	-4.8	2.9	-1.2%	-6.5%	+5.7%
6 to 3	Godstone	Brentwood	63.0	74.8	50.5	63.9	65.4	58.5	0.8	-9.4	8.0	+1.3%	-12.6%	+15.9%
6 to 4	Godstone	Basildon	66.1	77.9	50.9	66.1	71.0	55.9	-0.0	-7.0	5.0	-0.0%	-9.0%	+9.8%
7 to 1	Southfleet	Cheshunt	60.7	60.5	60.2	60.6	56.5	64.4	-0.0	-4.0	4.2	-0.1%	-6.6%	+7.0%
7 to 2	Southfleet	Romford	30.9	47.4	39.1	30.9	40.7	45.5	-0.0	-6.7	6.4	-0.0%	-14.0%	+16.3%
7 to 3	Southfleet	Brentwood	32.1	48.7	39.5	33.3	37.5	53.3	1.3	-11.2	13.8	+3.9%	-22.9%	+34.9%
7 to 4	Southfleet	Basildon	35.5	51.7	41.3	36.0	34.3	63.0	0.5	-17.3	21.7	+1.4%	-33.5%	+52.5%
8 to 1	Maidstone	Cheshunt	88.1	84.1	62.9	88.1	80.4	65.8	-0.0	-3.8	2.9	-0.1%	-4.5%	+4.6%
8 to 2	Maidstone	Romford	58.4	71.1	49.3	58.4	64.6	54.2	-0.0	-6.4	4.9	-0.0%	-9.1%	+10.0%
8 to 3	Maidstone	Brentwood	60.0	72.2	49.8	60.8	61.4	59.4	0.8	-10.8	9.6	+1.4%	-15.0%	+19.3%
8 to 4	Maidstone	Basildon	63.0	75.3	50.2	51.8	63.0	49.3	-11.2	-12.4	-0.9	-17.8%	-16.4%	-1.7%
9 to 1	Rochester	Cheshunt	75.3	97.9	46.2	71.3	82.5	51.8	-4.0	-15.4	5.7	-5.4%	-15.7%	+12.3%
9 to 2	Rochester	Romford	45.7	84.8	32.3	45.7	66.6	41.2	0.0	-18.2	8.9	+0.1%	-21.5%	+27.5%
9 to 3	Rochester	Brentwood	46.8	86.1	32.6	42.7	61.1	41.9	-4.2	-25.0	9.3	-8.9%	-29.1%	+28.4%
9 to 4	Rochester	Basildon	50.3	89.1	33.9	38.2	58.7	39.0	-12.1	-30.4	5.1	-24.1%	-34.1%	+15.1%
10 to 1	Rainham	Cheshunt	92.6	92.2	60.3	88.5	77.0	69.0	-4.0	-15.1	8.7	-4.3%	-16.4%	+14.4%
10 to 2	Rainham	Romford	62.9	79.1	47.7	65.2	60.7	64.3	2.3	-18.3	16.6	+3.6%	-23.2%	+34.8%
10 to 3	Rainham	Brentwood	64.4	80.3	48.1	59.8	55.6	64.5	-4.6	-24.6	16.4	-7.1%	-30.7%	+34.0%
10 to 4	Rainham	Basildon	67.4	83.4	48.5	55.3	53.3	62.3	-12.1	-30.1	13.8	-17.9%	-36.1%	+28.4%

D.9 LTAM 2051 High Growth – Outputs to Economic Assessment

D.9.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2051 high growth forecast.

Matrix Total Comparison

D.9.2 Table D134 and Table D135 provide a comparison of the VDM output core scenario matrices and the 2051 high growth matrices for all movements and relevant movements respectively.

Table D134 – Matrix Total Comparison – 2051 High Growth All Movements (PCU's)

Userclass	Time Period	All Movements								
		Core Scenario VDM Output Matrix (2051 DM)	High Growth Scenario (2051 DM)				Core Scenario VDM Output Matrix (2051 DS)	High Growth Scenario (2051 DS)		
			Matrix Total	Matrix Total	Diff to Core	Diff %		Matrix Total	Matrix Total	Diff to Core
Car Employers Business	AM	558,337	624,412	66,075	11.8%	558,483	624,558	66,075	11.8%	
	IP	485,254	542,726	57,472	11.8%	485,232	542,703	57,472	11.8%	
	PM	665,880	744,909	79,029	11.9%	665,939	744,967	79,029	11.9%	
	OP	197,090	220,243	23,153	11.7%	197,065	220,219	23,153	11.7%	
Car Commute Low Income	AM	500,863	562,505	61,642	12.3%	500,849	562,491	61,642	12.3%	
	IP	230,498	258,491	27,993	12.1%	230,516	258,508	27,993	12.1%	
	PM	577,250	647,752	70,501	12.2%	577,278	647,780	70,501	12.2%	
	OP	92,975	104,258	11,283	12.1%	92,974	104,257	11,283	12.1%	
Car Commute Medium Income	AM	1,017,946	1,142,771	124,825	12.3%	1,018,120	1,142,945	124,826	12.3%	
	IP	354,347	397,355	43,008	12.1%	354,330	397,337	43,008	12.1%	
	PM	1,110,766	1,246,016	135,250	12.2%	1,110,824	1,246,073	135,250	12.2%	
	OP	142,884	160,222	17,339	12.1%	142,867	160,206	17,339	12.1%	
Car Commute High Income	AM	867,922	974,199	106,277	12.2%	867,834	974,111	106,277	12.2%	
	IP	251,618	282,273	30,655	12.2%	251,636	282,291	30,655	12.2%	
	PM	897,064	1,006,541	109,477	12.2%	897,268	1,006,744	109,477	12.2%	
	OP	101,483	113,832	12,349	12.2%	101,477	113,826	12,349	12.2%	
Car Other Low Income	AM	846,183	942,426	96,243	11.4%	846,670	942,912	96,243	11.4%	
	IP	1,496,915	1,667,803	170,888	11.4%	1,496,943	1,667,832	170,888	11.4%	
	PM	1,454,935	1,621,539	166,604	11.5%	1,455,147	1,621,751	166,604	11.4%	
	OP	607,808	676,686	68,878	11.3%	607,695	676,573	68,878	11.3%	
Car Other Medium Income	AM	916,389	1,019,053	102,664	11.2%	916,620	1,019,284	102,664	11.2%	
	IP	1,219,465	1,355,972	136,507	11.2%	1,219,564	1,356,071	136,507	11.2%	
	PM	1,494,952	1,662,677	167,725	11.2%	1,495,021	1,662,746	167,725	11.2%	
	OP	495,945	550,939	54,995	11.1%	495,869	550,864	54,995	11.1%	
Car Other High Income	AM	738,322	820,472	82,151	11.1%	738,516	820,667	82,151	11.1%	
	IP	824,752	916,390	91,638	11.1%	824,749	916,387	91,638	11.1%	
	PM	1,141,057	1,268,044	126,987	11.1%	1,141,327	1,268,313	126,987	11.1%	
	OP	336,365	373,268	36,903	11.0%	336,286	373,189	36,903	11.0%	
Car Total	AM	5,445,962	6,085,838	639,876	11.7%	5,447,092	6,086,968	639,876	11.7%	
	IP	4,862,849	5,421,010	558,161	11.5%	4,862,968	5,421,129	558,161	11.5%	
	PM	7,341,904	8,197,476	855,572	11.7%	7,342,803	8,198,375	855,572	11.7%	
	OP	1,974,549	2,199,449	224,900	11.4%	1,974,234	2,199,134	224,900	11.4%	
LGV	AM	1,411,959	1,519,669	107,710	7.6%	1,411,959	1,519,669	107,710	7.6%	
	IP	1,217,803	1,310,584	92,781	7.6%	1,217,803	1,310,584	92,781	7.6%	
	PM	1,018,693	1,096,329	77,636	7.6%	1,018,693	1,096,329	77,636	7.6%	
	OP	489,362	526,778	37,416	7.6%	489,362	526,778	37,416	7.6%	
HGV	AM	499,458	554,885	55,428	11.1%	499,458	554,885	55,428	11.1%	
	IP	496,412	551,531	55,119	11.1%	496,412	551,531	55,119	11.1%	
	PM	312,731	347,425	34,694	11.1%	312,731	347,425	34,694	11.1%	
	OP	198,163	220,320	22,157	11.2%	198,163	220,320	22,157	11.2%	

Table D135 – Matrix Total Comparison – 2051 High Growth Relevant Movements (PCU's)

Userclass	Time Period	Relevant Movements							
		Core Scenario VDM Output Matrix (2051 DM)	High Growth Scenario (2051 DM)			Core Scenario VDM Output Matrix (2051 DS)	High Growth Scenario (2051 DS)		
		Matrix Total	Matrix Total	Diff to Core	Diff %	Matrix Total	Matrix Total	Diff to Core	Diff %
Car Employers Business	AM	44,942	50,413	5,471	12.2%	45,104	50,575	5,471	12.1%
	IP	31,827	35,575	3,747	11.8%	31,819	35,566	3,747	11.8%
	PM	44,898	50,291	5,393	12.0%	44,981	50,374	5,393	12.0%
	OP	13,363	14,845	1,482	11.1%	13,342	14,824	1,482	11.1%
Car Commute Low Income	AM	35,316	39,736	4,420	12.5%	35,294	39,715	4,420	12.5%
	IP	20,096	22,541	2,445	12.2%	20,113	22,559	2,445	12.2%
	PM	37,383	42,015	4,631	12.4%	37,411	42,042	4,631	12.4%
	OP	8,016	8,989	973	12.1%	8,015	8,988	973	12.1%
Car Commute Medium Income	AM	75,128	84,682	9,554	12.7%	75,292	84,845	9,554	12.7%
	IP	30,730	34,453	3,722	12.1%	30,714	34,436	3,722	12.1%
	PM	73,737	82,982	9,245	12.5%	73,791	83,036	9,245	12.5%
	OP	12,335	13,824	1,488	12.1%	12,318	13,807	1,488	12.1%
Car Commute High Income	AM	71,669	80,781	9,112	12.7%	71,570	80,682	9,112	12.7%
	IP	26,064	29,238	3,175	12.2%	26,084	29,259	3,175	12.2%
	PM	71,651	80,661	9,011	12.6%	71,855	80,865	9,011	12.5%
	OP	10,559	11,827	1,268	12.0%	10,552	11,820	1,268	12.0%
Car Other Low Income	AM	80,320	90,017	9,697	12.1%	80,826	90,523	9,697	12.0%
	IP	113,311	126,707	13,396	11.8%	113,368	126,765	13,396	11.8%
	PM	116,607	130,809	14,202	12.2%	116,850	131,052	14,202	12.2%
	OP	48,419	53,747	5,328	11.0%	48,325	53,653	5,328	11.0%
Car Other Medium Income	AM	92,264	102,975	10,711	11.6%	92,527	103,238	10,711	11.6%
	IP	111,424	123,896	12,472	11.2%	111,571	124,044	12,472	11.2%
	PM	137,673	153,505	15,832	11.5%	137,807	153,639	15,832	11.5%
	OP	47,781	52,738	4,957	10.4%	47,720	52,677	4,957	10.4%
Car Other High Income	AM	89,084	99,247	10,163	11.4%	89,316	99,479	10,163	11.4%
	IP	92,724	102,912	10,189	11.0%	92,765	102,954	10,189	11.0%
	PM	126,184	140,376	14,192	11.2%	126,531	140,723	14,192	11.2%
	OP	40,129	44,190	4,061	10.1%	40,063	44,125	4,061	10.1%
Car Total	AM	488,722	547,851	59,128	12.1%	489,929	549,057	59,128	12.1%
	IP	426,175	475,322	49,146	11.5%	426,434	475,581	49,146	11.5%
	PM	608,134	680,640	72,506	11.9%	609,225	681,731	72,506	11.9%
	OP	180,602	200,159	19,557	10.8%	180,336	199,893	19,557	10.8%
LGV	AM	168,031	180,711	12,680	7.5%	168,031	180,711	12,680	7.5%
	IP	126,843	136,285	9,442	7.4%	126,843	136,285	9,442	7.4%
	PM	130,945	140,775	9,831	7.5%	130,945	140,775	9,831	7.5%
	OP	49,201	52,987	3,787	7.7%	49,201	52,987	3,787	7.7%
HGV	AM	76,632	84,712	8,081	10.5%	76,632	84,712	8,081	10.5%
	IP	78,912	87,202	8,291	10.5%	78,912	87,202	8,291	10.5%
	PM	47,791	52,811	5,019	10.5%	47,791	52,811	5,019	10.5%
	OP	30,084	33,364	3,279	10.9%	30,084	33,364	3,279	10.9%

Highway Assignment Model (HAM) Convergence Statistics

D.9.3 Table D136 to Table D138 provide the highway assignment model convergence statistics for the 2051 high growth DM forecasts. Table D139 to Table D141 provide the highway assignment model convergence statistics for the 2051 high growth DS forecasts.

Table D136 – HAM Convergence Statistics – 2051 High Growth DM AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
131	0.0086	0.019	98.1	98.3
132	0.0110	0.017	97.6	98.2
133	0.0099	0.015	97.5	98.1
134	0.0088	0.020	98.1	98.1

Table D137 – HAM Convergence Statistics – 2051 High Growth DM Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
139	0.0153	0.011	97.6	98.4
140	0.0095	0.015	98.0	98.8
141	0.0135	0.010	97.6	98.3
142	0.0077	0.013	97.8	98.7

Table D138 – HAM Convergence Statistics – 2051 High Growth DM PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
126	0.0086	0.011	97.9	98.2
127	0.0083	0.013	98.1	98.3
128	0.0090	0.012	97.9	98.1
129	0.0087	0.011	97.8	98.2

Table D139 – HAM Convergence Statistics – 2051 High Growth DS AM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
138	0.0090	0.012	97.9	98.4
139	0.0085	0.011	97.6	98.4
140	0.0086	0.010	97.9	98.6
141	0.0083	0.012	98.3	98.5

Table D140 – HAM Convergence Statistics – 2051 High Growth DS Inter Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
109	0.0065	0.010	97.7	98.6
110	0.0079	0.0099	97.5	98.6
111	0.0078	0.0088	97.6	98.7
112	0.0054	0.011	98.0	98.5

Table D141 – HAM Convergence Statistics – 2051 High Growth DS PM Peak

Iteration	Delta (%)	%GAP	%Flows	%Delays
101	0.0090	0.013	97.8	98.1
102	0.0076	0.011	98.0	98.2
103	0.0077	0.017	98.3	98.3
104	0.0101	0.011	97.5	97.7

D.9.4 These tables demonstrate that the LTAM has achieved the WebTAG convergence targets in all time periods for this scenario and year.

DM Vs DS Flow Comparisons

D.9.5 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Figure D22 to Figure D24 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCU's per hour have been excluded from the colouring.

D.9.6 Table D142 provides a comparison of the cross-river traffic flows between the DM and DS scenarios.

Figure D22 – Actual Flow Comparison Plot – 2051 High Growth DM Vs DS AM Peak



Figure D23 – Actual Flow Comparison Plot – 2051 High Growth DM Vs DS Inter Peak



Figure D24 – Actual Flow Comparison Plot – 2051 High Growth DM Vs DS PM Peak



Table D142 – Cross River Traffic Flows – 2051 High Growth DM Vs DS (Hourly Flows in PCU's)

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
SB	Dartford	AM	2,964	3,331	367	12%	2,205	2,293	88	4%	3,331	2,818	-513	-15%	8,500	8,442	-58	-1%
		IP	3,417	3,045	-372	-11%	1,230	1,038	-192	-16%	3,852	2,566	-1,286	-33%	8,500	6,649	-1,851	-22%
		PM	4,586	4,406	-180	-4%	1,499	1,270	-229	-15%	2,415	1,540	-874	-36%	8,500	7,217	-1,283	-15%
LTC		AM	0	2,350			0	481			0	1,335			0	4,166		
		IP	0	2,114			0	323			0	1,643			0	4,080		
		PM	0	3,393			0	462			0	1,224			0	5,079		
Total		AM	2,964	5,681	2,717	92%	2,205	2,774	569	26%	3,331	4,153	822	25%	8,500	12,608	4,108	48%
		IP	3,417	5,159	1,741	51%	1,230	1,361	131	11%	3,852	4,209	357	9%	8,500	10,730	2,230	26%
		PM	4,586	7,799	3,213	70%	1,499	1,732	233	16%	2,415	2,764	350	14%	8,500	12,296	3,796	45%
NB	Dartford	AM	3,541	3,567	25	1%	1,870	1,553	-317	-17%	2,427	1,578	-849	-35%	7,839	6,697	-1,141	-15%
		IP	2,990	3,066	76	3%	1,321	1,242	-79	-6%	3,431	2,277	-1,153	-34%	7,742	6,586	-1,156	-15%
		PM	3,982	3,992	10	0%	1,396	1,239	-157	-11%	2,387	1,614	-774	-32%	7,766	6,845	-921	-12%
LTC		AM	0	2,894			0	698			0	1,312			0	4,904		
		IP	0	1,920			0	342			0	1,712			0	3,974		
		PM	0	2,149			0	327			0	922			0	3,398		

Direction	Crossing	Time Period	Cars				LGV				HGV				Total			
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %
	Total	AM	3,541	6,460	2,919	82%	1,870	2,251	381	20%	2,427	2,890	463	19%	7,839	11,601	3,762	48%
		IP	2,990	4,987	1,996	67%	1,321	1,584	264	20%	3,431	3,989	558	16%	7,742	10,560	2,818	36%
		PM	3,982	6,141	2,159	54%	1,396	1,566	169	12%	2,387	2,535	148	6%	7,766	10,242	2,477	32%

D.9.7 The movements considered critical to understanding the impacts of the scheme are the same as those described under Section 7.2. Table D143 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D143 – Key Corridor Traffic Flows – 2051 High Growth DM Vs DS
(Hourly Flows in PCU's)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	8,269	9,180	0.90	9,180	9,180	1.00	911	11%
		IP	7,717	9,180	0.84	9,102	9,180	0.99	1,385	18%
		PM	7,441	9,180	0.81	8,658	9,180	0.94	1,217	16%
	M25 J28 to M25 J29 (SB)	AM	8,139	9,115	0.89	8,103	9,180	0.88	-35	0%
		IP	8,123	9,115	0.89	8,280	9,180	0.90	157	2%
		PM	8,378	9,115	0.92	8,578	9,180	0.93	199	2%
B	M25 J4 to M25 J3 (NB)	AM	6,278	6,850	0.92	6,461	6,850	0.94	183	3%
		IP	6,263	6,850	0.91	6,454	6,850	0.94	191	3%
		PM	6,578	6,850	0.96	6,753	6,850	0.99	175	3%
	M25 J3 to M25 J4 (SB)	AM	6,850	6,850	1.00	6,850	6,850	1.00	0	0%
		IP	6,036	6,850	0.88	6,503	6,850	0.95	467	8%
		PM	5,490	6,850	0.80	6,151	6,850	0.90	661	12%
C	A13 A126 to A1012 (EB)	AM	5,203	6,310	0.82	4,556	6,296	0.72	-647	-12%
		IP	5,435	6,284	0.86	4,964	6,272	0.79	-471	-9%
		PM	5,658	6,280	0.90	5,619	6,247	0.90	-38	-1%
	A13 A1012 to A126 (WB)	AM	6,195	6,360	0.97	5,914	6,360	0.93	-280	-5%
		IP	6,106	6,360	0.96	5,302	6,360	0.83	-803	-13%
		PM	6,029	6,360	0.95	4,934	6,360	0.78	-1,096	-18%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,869	6,370	0.76	5,596	6,370	0.88	727	15%
		IP	4,441	6,370	0.70	5,260	6,370	0.83	819	18%
		PM	5,384	6,359	0.85	5,965	6,288	0.95	581	11%
	A13 Manor Way to Orsett Cock (WB)	AM	5,829	6,220	0.94	6,126	6,220	0.98	296	5%
		IP	4,974	6,220	0.80	5,913	6,220	0.95	939	19%
		PM	5,190	6,220	0.83	6,027	6,220	0.97	837	16%
E	A2 A227 to Gravesend East (EB)	AM	6,866	9,207	0.75	6,005	9,200	0.65	-861	-13%
		IP	7,395	9,170	0.81	6,085	9,144	0.67	-1,310	-18%
		PM	8,725	9,170	0.95	8,269	9,152	0.90	-456	-5%
	A2 Gravesend East to A227 (WB)	AM	7,429	7,466	1.00	6,675	7,527	0.89	-754	-10%
		IP	6,800	7,642	0.89	5,925	7,441	0.80	-875	-13%
		PM	6,954	7,484	0.93	6,595	7,296	0.90	-359	-5%
F	M2 J1 to M2 J2 (EB)	AM	6,140	8,607	0.71	7,114	8,472	0.84	974	16%
		IP	5,619	8,548	0.66	6,624	8,457	0.78	1,005	18%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
	M2 J2 to M2 J1 (WB)	PM	6,808	8,581	0.79	8,079	7,479	1.08	1,272	19%
		AM	5,790	9,115	0.64	7,268	9,180	0.79	1,477	26%
		IP	5,092	9,115	0.56	6,617	9,180	0.72	1,525	30%
		PM	5,297	9,115	0.58	6,178	9,180	0.67	882	17%
G	M20 J3 to M20 J4 (EB)	AM	6,861	9,115	0.75	6,431	9,115	0.71	-430	-6%
		IP	6,919	9,115	0.76	6,280	9,115	0.69	-638	-9%
		PM	8,439	9,115	0.93	8,156	9,115	0.89	-284	-3%
	M20 J4 to M20 J3 (WB)	AM	8,961	9,115	0.98	8,139	9,115	0.89	-822	-9%
		IP	6,578	9,115	0.72	5,409	9,115	0.59	-1,169	-18%
		PM	5,947	9,115	0.65	5,140	9,115	0.56	-807	-14%

DM Vs DS Journey Time Comparisons

- D.9.8 The same link based and route based journey time comparisons introduced under Section 7.2 are repeated for this year scenario combination.
- D.9.9 The link based journey time comparisons for this scenario are presented in Table D144 to Table D146.
- D.9.10 Table D147 to Table D152 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

Table D144 – Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) AM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	22.8	61.9	23.5	21.5	65.7	-0.0	-1.4	3.8	-0.1%	-5.9%	+6.1%
	B to D	M25 J29	M25 J2	18.9	20.8	54.6	18.9	16.4	68.9	-0.0	-4.3	14.4	-0.1%	-20.9%	+26.3%
	D to F	M25 J2	M25 J7	37.4	35.9	62.5	37.4	38.9	57.7	0.0	3.0	-4.8	+0.0%	+8.3%	-7.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	32.1	70.7	37.8	32.4	70.0	0.0	0.3	-0.7	+0.0%	+1.0%	-1.0%
	D to B	M25 J2	M25 J29	18.6	30.0	37.3	18.4	34.7	31.9	-0.2	4.7	-5.4	-1.1%	+15.6%	-14.4%
	B to A	M25 J29	M25 J26	23.4	23.1	60.8	23.3	23.3	60.2	-0.0	0.2	-0.6	-0.1%	+0.9%	-1.0%
A13 EB	C to G	M25 J30	A1089	5.0	5.0	60.8	5.2	4.6	67.4	0.2	-0.4	6.6	+3.1%	-7.0%	+10.9%
	G to H	A1089	A130	15.7	13.4	70.5	15.7	14.5	64.9	-0.0	1.2	-5.6	-0.0%	+8.6%	-8.0%
A13 WB	H to G	A130	A1089	15.6	17.5	53.5	15.6	26.5	35.2	0.0	9.1	-18.2	+0.1%	+51.9%	-34.1%
	G to C	A1089	M25 J30	5.3	9.2	34.2	5.6	8.0	41.7	0.3	-1.2	7.5	+5.9%	-13.2%	+21.9%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	9.3	91.9	14.6	8.8	99.4	0.4	-0.4	7.4	+3.0%	-4.7%	+8.1%
	I to J	M2 J1	M2 J4	14.9	9.0	99.3	14.4	9.4	92.3	-0.5	0.4	-7.0	-3.3%	+4.1%	-7.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	9.6	94.2	15.0	10.3	87.9	0.0	0.7	-6.3	+0.0%	+7.1%	-6.7%
	I to D	M2 J1	M25 J2	14.7	23.9	37.0	14.8	17.4	51.0	0.1	-6.5	14.0	+0.4%	-27.2%	+37.9%
M20 EB	E to K	M25 J3	M20 J8	35.2	26.9	78.6	35.2	26.3	80.1	0.0	-0.5	1.5	+0.0%	-1.9%	+2.0%
M20 WB	K to E	M20 J8	M25 J3	35.4	28.9	73.5	35.4	26.2	81.1	0.0	-2.7	7.6	+0.0%	-9.4%	+10.4%

Table D145 – Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) Inter Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	21.9	64.6	23.5	21.6	65.2	-0.0	-0.2	0.6	-0.1%	-1.1%	+0.9%
	B to D	M25 J29	M25 J2	18.9	17.1	66.1	18.9	12.9	87.5	-0.0	-4.2	21.4	-0.1%	-24.5%	+32.4%
	D to F	M25 J2	M25 J7	37.4	29.2	77.0	37.4	31.0	72.4	0.0	1.8	-4.6	+0.0%	+6.3%	-5.9%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	33.3	68.2	37.8	34.2	66.5	0.0	0.9	-1.7	+0.0%	+2.6%	-2.5%
	D to B	M25 J2	M25 J29	18.6	27.8	40.3	18.4	17.0	65.2	-0.2	-10.8	25.0	-1.1%	-38.9%	+62.0%
	B to A	M25 J29	M25 J26	23.4	18.3	76.4	23.3	21.3	65.7	-0.0	3.0	-10.7	-0.1%	+16.3%	-14.0%
A13 EB	C to G	M25 J30	A1089	5.0	5.8	52.5	5.2	5.1	60.8	0.2	-0.6	8.3	+3.1%	-11.0%	+15.8%
	G to H	A1089	A130	15.7	11.5	81.7	15.7	13.4	70.5	-0.0	1.8	-11.2	-0.0%	+15.9%	-13.7%
A13 WB	H to G	A130	A1089	15.6	12.7	73.6	15.6	14.1	66.5	0.0	1.4	-7.1	+0.1%	+10.8%	-9.6%
	G to C	A1089	M25 J30	5.3	7.7	40.9	5.6	6.6	50.4	0.3	-1.1	9.5	+5.9%	-14.0%	+23.2%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	9.6	88.7	14.6	8.8	99.5	0.4	-0.8	10.8	+3.0%	-8.2%	+12.2%
	I to J	M2 J1	M2 J4	14.9	8.8	102.1	14.4	8.8	97.8	-0.5	0.1	-4.3	-3.3%	+1.0%	-4.2%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	8.8	102.2	15.0	9.2	98.3	0.0	0.4	-3.9	+0.0%	+4.0%	-3.8%
	I to D	M2 J1	M25 J2	14.7	13.7	64.5	14.8	10.2	87.2	0.1	-3.5	22.7	+0.4%	-25.8%	+35.2%
M20 EB	E to K	M25 J3	M20 J8	35.2	26.4	79.8	35.2	25.8	81.8	0.0	-0.6	1.9	+0.0%	-2.3%	+2.4%
M20 WB	K to E	M20 J8	M25 J3	35.4	21.2	100.2	35.4	20.6	103.3	0.0	-0.6	3.1	+0.0%	-3.0%	+3.1%

Table D146 – Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) PM Peak

Road	Movement	From	To	Do-Minimum (HM6)			Do-Something (H8E)			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	23.3	60.5	23.5	23.1	60.9	-0.0	-0.2	0.4	-0.1%	-0.8%	+0.6%
	B to D	M25 J29	M25 J2	18.9	20.2	56.1	18.9	13.6	83.1	-0.0	-6.6	27.1	-0.1%	-32.6%	+48.3%
	D to F	M25 J2	M25 J7	37.4	24.1	93.1	37.4	25.8	86.9	0.0	1.7	-6.3	+0.0%	+7.2%	-6.7%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	37.8	35.5	64.0	37.8	36.5	62.3	0.0	1.0	-1.7	+0.0%	+2.8%	-2.7%
	D to B	M25 J2	M25 J29	18.6	31.1	36.0	18.4	17.7	62.6	-0.2	-13.4	26.6	-1.1%	-43.2%	+74.1%
	B to A	M25 J29	M25 J26	23.4	16.9	83.1	23.3	18.4	76.2	-0.0	1.5	-6.8	-0.1%	+8.9%	-8.2%
A13 EB	C to G	M25 J30	A1089	5.0	9.4	32.3	5.2	7.0	44.8	0.2	-2.4	12.5	+3.1%	-25.7%	+38.7%
	G to H	A1089	A130	15.7	13.0	72.6	15.7	15.9	59.4	-0.0	2.9	-13.1	-0.0%	+22.1%	-18.1%
A13 WB	H to G	A130	A1089	15.6	13.3	70.0	15.6	20.2	46.3	0.0	6.8	-23.7	+0.1%	+51.3%	-33.8%
	G to C	A1089	M25 J30	5.3	7.7	40.8	5.6	6.1	55.0	0.3	-1.7	14.1	+5.9%	-21.3%	+34.6%
A2/M2 EB	D to I	M25 J2	M2 J1	14.2	14.9	57.1	14.6	10.8	81.0	0.4	-4.1	23.8	+3.0%	-27.3%	+41.7%
	I to J	M2 J1	M2 J4	14.9	10.1	88.2	14.4	14.8	58.5	-0.5	4.6	-29.7	-3.3%	+45.7%	-33.6%
A2/M2 WB	J to I	M2 J4	M2 J1	15.0	9.0	100.9	15.0	9.3	97.6	0.0	0.3	-3.3	+0.0%	+3.4%	-3.2%
	I to D	M2 J1	M25 J2	14.7	16.9	52.2	14.8	11.8	75.1	0.1	-5.1	22.9	+0.4%	-30.2%	+43.9%
M20 EB	E to K	M25 J3	M20 J8	35.2	37.8	55.9	35.2	38.3	55.2	0.0	0.5	-0.7	+0.0%	+1.2%	-1.2%
M20 WB	K to E	M20 J8	M25 J3	35.4	21.4	99.3	35.4	20.8	102.1	0.0	-0.6	2.8	+0.0%	-2.7%	+2.8%

Table D147 – Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.7	77.5	48.6	62.9	76.6	49.2	0.1	-0.9	0.7	+0.2%	-1.1%	+1.4%
1 to 6	Cheshunt	Godstone	92.6	104.6	53.1	92.5	103.2	53.8	-0.0	-1.3	0.7	-0.0%	-1.3%	+1.3%
1 to 7	Cheshunt	Southfleet	61.6	71.4	51.8	61.6	67.7	54.6	-0.0	-3.7	2.8	-0.0%	-5.2%	+5.4%
1 to 8	Cheshunt	Maidstone	89.0	90.9	58.7	89.0	86.7	61.5	-0.0	-4.2	2.8	-0.0%	-4.6%	+4.8%
1 to 9	Cheshunt	Rochester	77.2	98.3	47.1	71.7	87.1	49.4	-5.5	-11.2	2.3	-7.1%	-11.4%	+4.9%
1 to 10	Cheshunt	Rainham	92.4	108.7	51.0	87.7	96.8	54.4	-4.7	-11.9	3.4	-5.0%	-10.9%	+6.6%
2 to 5	Romford	Bexley	32.6	59.9	32.7	32.2	58.0	33.3	-0.5	-1.9	0.6	-1.4%	-3.2%	+1.8%
2 to 6	Romford	Godstone	62.5	87.0	43.1	61.8	84.6	43.8	-0.6	-2.4	0.8	-1.0%	-2.7%	+1.8%
2 to 7	Romford	Southfleet	31.5	53.8	35.2	30.9	49.1	37.8	-0.6	-4.7	2.6	-2.0%	-8.8%	+7.4%
2 to 8	Romford	Maidstone	58.9	73.3	48.2	58.2	68.1	51.3	-0.6	-5.2	3.1	-1.1%	-7.1%	+6.5%
2 to 9	Romford	Rochester	47.2	80.6	35.1	45.5	70.6	38.7	-1.7	-10.0	3.6	-3.6%	-12.4%	+10.2%
2 to 10	Romford	Rainham	63.2	81.6	46.5	62.4	71.5	52.4	-0.7	-10.1	6.0	-1.1%	-12.4%	+12.9%
3 to 5	Brentwood	Bexley	33.4	51.2	39.1	33.5	50.7	39.7	0.2	-0.5	0.6	+0.5%	-1.0%	+1.5%
3 to 6	Brentwood	Godstone	63.2	78.3	48.4	63.2	77.3	49.0	-0.0	-1.0	0.6	-0.0%	-1.2%	+1.2%
3 to 7	Brentwood	Southfleet	32.3	45.1	42.9	32.2	41.8	46.3	-0.0	-3.3	3.4	-0.0%	-7.4%	+7.9%
3 to 8	Brentwood	Maidstone	59.6	64.7	55.3	59.6	60.9	58.8	-0.0	-3.8	3.5	-0.0%	-5.9%	+6.3%
3 to 9	Brentwood	Rochester	47.8	72.0	39.8	42.3	61.2	41.5	-5.5	-10.8	1.7	-11.4%	-15.0%	+4.3%
3 to 10	Brentwood	Rainham	63.9	72.9	52.6	59.3	62.0	57.3	-4.6	-10.9	4.7	-7.3%	-14.9%	+9.0%
4 to 5	Basildon	Bexley	39.2	59.7	39.3	39.3	54.3	43.4	0.1	-5.4	4.1	+0.3%	-9.1%	+10.4%
4 to 6	Basildon	Godstone	69.0	86.8	47.7	69.0	80.9	51.1	-0.0	-5.9	3.5	-0.0%	-6.8%	+7.2%
4 to 7	Basildon	Southfleet	38.1	53.6	42.6	34.2	38.5	53.4	-3.8	-15.1	10.8	-10.0%	-28.2%	+25.4%
4 to 8	Basildon	Maidstone	65.4	73.2	53.6	48.6	63.3	46.0	-16.9	-9.9	-7.6	-25.8%	-13.5%	-14.2%
4 to 9	Basildon	Rochester	53.6	80.5	39.9	36.5	58.5	37.4	-17.1	-22.0	-2.6	-32.0%	-27.3%	-6.5%
4 to 10	Basildon	Rainham	69.7	81.4	51.4	53.4	59.4	53.9	-16.3	-22.0	2.5	-23.4%	-27.0%	+5.0%

Table D148 – Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	61.8	62.9	59.0	61.7	60.5	61.2	-0.1	-2.3	2.1	-0.2%	-3.7%	+3.6%
1 to 6	Cheshunt	Godstone	91.4	84.6	64.8	91.2	83.1	65.9	-0.1	-1.5	1.1	-0.1%	-1.8%	+1.6%
1 to 7	Cheshunt	Southfleet	60.7	60.3	60.4	60.7	57.6	63.3	-0.0	-2.8	2.9	-0.1%	-4.6%	+4.7%
1 to 8	Cheshunt	Maidstone	88.2	77.8	68.0	88.0	73.7	71.6	-0.2	-4.0	3.5	-0.2%	-5.2%	+5.2%
1 to 9	Cheshunt	Rochester	81.0	79.5	61.1	76.3	71.8	63.8	-4.7	-7.7	2.7	-5.8%	-9.7%	+4.4%
1 to 10	Cheshunt	Rainham	91.5	86.3	63.7	86.8	77.8	66.9	-4.8	-8.5	3.3	-5.2%	-9.9%	+5.2%
2 to 5	Romford	Bexley	31.9	49.5	38.6	35.4	44.7	47.5	3.6	-4.8	8.9	+11.2%	-9.6%	+23.0%
2 to 6	Romford	Godstone	61.4	71.2	51.7	65.0	67.3	57.9	3.6	-3.9	6.2	+5.8%	-5.5%	+12.0%
2 to 7	Romford	Southfleet	30.8	47.0	39.3	34.4	41.8	49.4	3.7	-5.2	10.1	+11.9%	-11.0%	+25.8%
2 to 8	Romford	Maidstone	58.1	64.4	54.2	61.7	58.0	63.9	3.6	-6.4	9.7	+6.1%	-10.0%	+17.9%
2 to 9	Romford	Rochester	51.0	66.2	46.2	50.0	56.0	53.6	-1.0	-10.2	7.3	-1.9%	-15.4%	+15.9%
2 to 10	Romford	Rainham	61.6	72.9	50.6	60.5	62.0	58.6	-1.1	-10.9	7.9	-1.7%	-15.0%	+15.6%
3 to 5	Brentwood	Bexley	33.2	37.2	53.5	32.5	33.7	57.9	-0.7	-3.5	4.3	-2.2%	-9.5%	+8.1%
3 to 6	Brentwood	Godstone	62.7	58.9	63.9	62.0	56.2	66.2	-0.7	-2.7	2.3	-1.2%	-4.6%	+3.6%
3 to 7	Brentwood	Southfleet	32.1	34.7	55.5	31.5	30.7	61.5	-0.6	-4.0	5.9	-2.0%	-11.4%	+10.7%
3 to 8	Brentwood	Maidstone	59.5	52.1	68.5	58.7	46.9	75.2	-0.8	-5.2	6.6	-1.3%	-10.0%	+9.7%
3 to 9	Brentwood	Rochester	52.3	53.9	58.3	47.1	44.9	62.8	-5.3	-8.9	4.6	-10.1%	-16.6%	+7.8%
3 to 10	Brentwood	Rainham	62.9	60.6	62.2	57.5	50.9	67.8	-5.4	-9.7	5.6	-8.5%	-16.0%	+9.0%
4 to 5	Basildon	Bexley	39.6	44.2	53.8	39.6	38.5	61.6	-0.0	-5.6	7.8	-0.1%	-12.7%	+14.5%
4 to 6	Basildon	Godstone	69.2	65.9	63.0	69.1	61.1	67.9	-0.0	-4.8	4.9	-0.1%	-7.3%	+7.8%
4 to 7	Basildon	Southfleet	38.5	41.6	55.5	33.4	29.3	68.5	-5.1	-12.4	13.0	-13.3%	-29.7%	+23.4%
4 to 8	Basildon	Maidstone	65.9	59.1	67.0	47.3	47.0	60.4	-18.7	-12.1	-6.6	-28.3%	-20.4%	-9.9%
4 to 9	Basildon	Rochester	58.8	60.8	58.0	41.2	43.3	57.1	-17.6	-17.6	-0.8	-29.9%	-28.9%	-1.4%
4 to 10	Basildon	Rainham	69.3	67.6	61.5	51.7	49.2	63.0	-17.6	-18.4	1.4	-25.5%	-27.2%	+2.3%

Table D149 – Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 5	Cheshunt	Bexley	62.6	76.3	49.2	62.5	72.1	52.0	-0.1	-4.2	2.8	-0.1%	-5.5%	+5.6%
1 to 6	Cheshunt	Godstone	92.4	92.9	59.7	92.3	88.8	62.4	-0.1	-4.1	2.7	-0.1%	-4.4%	+4.5%
1 to 7	Cheshunt	Southfleet	61.4	72.8	50.6	61.4	67.4	54.6	-0.1	-5.4	4.0	-0.1%	-7.4%	+7.9%
1 to 8	Cheshunt	Maidstone	88.8	95.1	56.0	83.4	89.0	56.2	-5.4	-6.1	0.2	-6.1%	-6.4%	+0.3%
1 to 9	Cheshunt	Rochester	78.0	103.9	45.0	72.9	91.5	47.8	-5.1	-12.5	2.8	-6.6%	-12.0%	+6.2%
1 to 10	Cheshunt	Rainham	93.1	116.1	48.1	88.4	103.0	51.5	-4.7	-13.1	3.4	-5.0%	-11.3%	+7.0%
2 to 5	Romford	Bexley	32.8	60.6	32.5	33.1	56.9	34.9	0.2	-3.7	2.4	+0.7%	-6.1%	+7.3%
2 to 6	Romford	Godstone	62.7	77.1	48.8	62.9	73.5	51.4	0.2	-3.6	2.6	+0.4%	-4.7%	+5.3%
2 to 7	Romford	Southfleet	31.8	57.0	33.4	32.0	52.1	36.9	0.2	-4.9	3.4	+0.8%	-8.6%	+10.3%
2 to 8	Romford	Maidstone	59.1	79.3	44.7	56.2	73.1	46.1	-3.0	-6.2	1.4	-5.0%	-7.9%	+3.1%
2 to 9	Romford	Rochester	48.3	88.2	32.9	45.9	75.5	36.5	-2.4	-12.6	3.6	-5.0%	-14.3%	+10.9%
2 to 10	Romford	Rainham	63.4	100.3	37.9	61.4	87.0	42.3	-2.0	-13.3	4.4	-3.2%	-13.2%	+11.6%
3 to 5	Brentwood	Bexley	33.3	57.4	34.8	33.3	53.8	37.1	-0.0	-3.6	2.3	-0.0%	-6.2%	+6.6%
3 to 6	Brentwood	Godstone	63.2	74.0	51.3	63.2	70.5	53.8	-0.0	-3.5	2.5	-0.0%	-4.7%	+4.9%
3 to 7	Brentwood	Southfleet	32.3	53.8	35.9	32.2	49.1	39.4	-0.0	-4.8	3.5	-0.0%	-8.9%	+9.7%
3 to 8	Brentwood	Maidstone	59.6	76.1	47.0	54.0	70.7	45.9	-5.6	-5.5	-1.1	-9.4%	-7.2%	-2.4%
3 to 9	Brentwood	Rochester	46.9	85.4	32.9	42.6	73.2	34.9	-4.2	-12.2	2.0	-9.1%	-14.3%	+6.1%
3 to 10	Brentwood	Rainham	63.9	97.1	39.5	59.3	84.6	42.0	-4.6	-12.5	2.5	-7.3%	-12.9%	+6.4%
4 to 5	Basildon	Bexley	36.7	59.8	36.8	36.7	54.4	40.5	-0.0	-5.4	3.6	-0.0%	-9.0%	+9.9%
4 to 6	Basildon	Godstone	66.5	76.4	52.2	66.5	71.1	56.1	0.0	-5.3	3.9	+0.0%	-7.0%	+7.5%
4 to 7	Basildon	Southfleet	35.5	56.3	37.9	33.4	39.7	50.5	-2.1	-16.6	12.6	-5.9%	-29.4%	+33.3%
4 to 8	Basildon	Maidstone	62.9	78.5	48.0	47.3	62.5	45.4	-15.6	-16.0	-2.6	-24.8%	-20.4%	-5.5%
4 to 9	Basildon	Rochester	52.1	87.4	35.8	37.0	65.0	34.2	-15.1	-22.5	-1.6	-29.0%	-25.7%	-4.4%
4 to 10	Basildon	Rainham	67.2	99.5	40.5	52.5	76.4	41.2	-14.6	-23.1	0.7	-21.8%	-23.2%	+1.8%

Table D150 – Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) AM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	68.5	53.9	61.6	64.9	56.9	0.0	-3.6	3.0	+0.0%	-5.3%	+5.6%
5 to 2	Bexley	Romford	33.3	51.4	38.9	33.4	44.3	45.2	0.1	-7.1	6.3	+0.2%	-13.7%	+16.1%
5 to 3	Bexley	Brentwood	34.4	53.2	38.8	34.3	45.1	45.6	-0.1	-8.1	6.8	-0.4%	-15.2%	+17.5%
5 to 4	Bexley	Basildon	36.4	51.6	42.3	36.5	41.9	52.2	0.1	-9.7	9.9	+0.2%	-18.8%	+23.4%
6 to 1	Godstone	Cheshunt	91.2	93.5	58.5	91.2	90.6	60.4	-0.0	-2.9	1.9	-0.1%	-3.1%	+3.2%
6 to 2	Godstone	Romford	63.0	76.4	49.5	63.0	70.0	54.0	-0.0	-6.4	4.5	-0.0%	-8.4%	+9.1%
6 to 3	Godstone	Brentwood	64.0	78.2	49.1	63.9	70.8	54.1	-0.2	-7.4	5.0	-0.3%	-9.5%	+10.2%
6 to 4	Godstone	Basildon	66.1	76.7	51.7	66.1	67.6	58.6	-0.0	-9.1	6.9	-0.0%	-11.8%	+13.4%
7 to 1	Southfleet	Cheshunt	61.1	69.7	52.6	60.6	62.7	58.0	-0.5	-7.0	5.4	-0.8%	-10.0%	+10.2%
7 to 2	Southfleet	Romford	32.9	52.6	37.6	32.5	42.1	46.3	-0.5	-10.5	8.7	-1.4%	-19.9%	+23.1%
7 to 3	Southfleet	Brentwood	34.0	54.4	37.5	33.3	42.9	46.6	-0.6	-11.5	9.1	-1.9%	-21.1%	+24.4%
7 to 4	Southfleet	Basildon	36.0	52.9	40.9	35.5	31.4	67.8	-0.5	-21.4	26.9	-1.5%	-40.6%	+65.8%
8 to 1	Maidstone	Cheshunt	88.1	101.6	52.0	88.1	93.9	56.3	-0.0	-7.7	4.2	-0.1%	-7.6%	+8.1%
8 to 2	Maidstone	Romford	59.9	84.5	42.6	59.9	73.3	49.0	0.0	-11.2	6.5	+0.0%	-13.2%	+15.2%
8 to 3	Maidstone	Brentwood	61.0	86.3	42.4	55.1	75.1	44.1	-5.8	-11.2	1.7	-9.6%	-13.0%	+4.0%
8 to 4	Maidstone	Cheshunt	63.0	84.8	44.6	50.7	63.6	47.9	-12.3	-21.2	3.2	-19.6%	-25.0%	+7.3%
9 to 1	Rochester	Cheshunt	78.4	105.6	44.5	71.4	85.6	50.0	-7.0	-20.0	5.5	-9.0%	-18.9%	+12.3%
9 to 2	Rochester	Romford	50.2	88.5	34.0	44.7	65.6	41.0	-5.5	-23.0	6.9	-10.9%	-25.9%	+20.3%
9 to 3	Rochester	Brentwood	51.3	90.3	34.0	42.6	64.5	39.7	-8.6	-25.8	5.6	-16.8%	-28.6%	+16.5%
9 to 4	Rochester	Basildon	53.3	88.8	36.0	38.2	53.0	43.2	-15.1	-35.8	7.2	-28.4%	-40.3%	+20.1%
10 to 1	Rainham	Cheshunt	92.6	116.9	47.5	88.5	96.2	55.2	-4.0	-20.6	7.7	-4.4%	-17.7%	+16.1%
10 to 2	Rainham	Romford	64.4	99.8	38.7	61.9	76.2	48.8	-2.4	-23.6	10.1	-3.8%	-23.7%	+26.0%
10 to 3	Rainham	Brentwood	65.4	101.6	38.6	59.8	75.1	47.8	-5.6	-26.5	9.1	-8.6%	-26.1%	+23.6%
10 to 4	Rainham	Basildon	67.5	100.0	40.5	55.3	63.6	52.2	-12.1	-36.5	11.8	-18.0%	-36.4%	+29.1%

Table D151 – Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) Inter Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	64.4	57.3	61.5	61.9	59.6	0.0	-2.5	2.3	+0.1%	-3.9%	+4.1%
5 to 2	Bexley	Romford	37.1	48.2	46.1	34.4	42.1	49.1	-2.6	-6.1	3.0	-7.1%	-12.7%	+6.5%
5 to 3	Bexley	Brentwood	34.2	45.1	45.5	34.1	37.7	54.3	-0.1	-7.5	8.8	-0.4%	-16.6%	+19.4%
5 to 4	Bexley	Basildon	36.4	48.6	45.0	36.7	41.0	53.7	0.3	-7.6	8.8	+0.7%	-15.7%	+19.5%
6 to 1	Godstone	Cheshunt	91.5	90.3	60.8	91.4	86.7	63.3	-0.0	-3.6	2.5	-0.0%	-3.9%	+4.1%
6 to 2	Godstone	Romford	67.0	74.1	54.3	64.3	66.9	57.7	-2.7	-7.2	3.5	-4.0%	-9.8%	+6.4%
6 to 3	Godstone	Brentwood	64.2	71.0	54.2	64.0	62.4	61.5	-0.2	-8.6	7.3	-0.3%	-12.1%	+13.4%
6 to 4	Godstone	Basildon	66.4	74.5	53.5	66.4	65.8	60.5	-0.0	-8.7	7.0	-0.0%	-11.6%	+13.2%
7 to 1	Southfleet	Cheshunt	60.2	64.2	56.3	60.6	58.6	62.0	0.4	-5.5	5.7	+0.6%	-8.6%	+10.2%
7 to 2	Southfleet	Romford	35.8	47.7	45.0	33.5	38.5	52.3	-2.3	-9.2	7.3	-6.3%	-19.4%	+16.2%
7 to 3	Southfleet	Brentwood	32.9	44.6	44.3	33.2	34.1	58.4	0.2	-10.6	14.2	+0.8%	-23.7%	+32.0%
7 to 4	Southfleet	Basildon	35.1	48.1	43.8	35.5	29.9	71.3	0.4	-18.2	27.5	+1.0%	-37.9%	+62.8%
8 to 1	Maidstone	Cheshunt	88.1	94.7	55.8	84.0	87.7	57.4	-4.1	-6.9	1.6	-4.6%	-7.3%	+2.9%
8 to 2	Maidstone	Romford	63.7	78.5	48.7	56.9	67.7	50.4	-6.8	-10.8	1.7	-10.6%	-13.7%	+3.6%
8 to 3	Maidstone	Brentwood	60.8	75.4	48.4	55.1	62.1	53.3	-5.7	-13.3	4.9	-9.4%	-17.7%	+10.1%
8 to 4	Maidstone	Basildon	63.0	78.9	48.0	50.8	57.8	52.8	-12.2	-21.1	4.8	-19.4%	-26.7%	+10.0%
9 to 1	Rochester	Cheshunt	76.9	91.6	50.4	71.4	77.3	55.4	-5.6	-14.3	5.0	-7.3%	-15.6%	+9.9%
9 to 2	Rochester	Romford	52.5	75.4	41.8	44.3	57.3	46.4	-8.3	-18.1	4.6	-15.7%	-24.0%	+10.9%
9 to 3	Rochester	Brentwood	49.7	72.3	41.2	42.5	51.6	49.4	-7.2	-20.7	8.1	-14.5%	-28.6%	+19.8%
9 to 4	Rochester	Basildon	51.9	75.8	41.1	38.2	47.4	48.4	-13.7	-28.4	7.3	-26.4%	-37.5%	+17.8%
10 to 1	Rainham	Cheshunt	91.6	93.7	58.7	87.6	78.4	67.1	-4.0	-15.3	8.4	-4.3%	-16.3%	+14.3%
10 to 2	Rainham	Romford	67.2	77.5	52.0	60.6	58.4	62.2	-6.7	-19.1	10.2	-9.9%	-24.6%	+19.5%
10 to 3	Rainham	Brentwood	64.4	74.4	51.9	58.8	52.7	66.9	-5.6	-21.6	14.9	-8.7%	-29.1%	+28.8%
10 to 4	Rainham	Basildon	66.6	77.9	51.3	54.5	48.5	67.4	-12.1	-29.4	16.1	-18.2%	-37.7%	+31.5%

Table D152 – Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) PM Peak

Move ment	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
5 to 1	Bexley	Cheshunt	61.5	67.5	54.6	61.5	64.2	57.4	-0.0	-3.3	2.8	-0.1%	-4.9%	+5.1%
5 to 2	Bexley	Romford	36.4	52.8	41.4	31.8	47.7	40.1	-4.5	-5.1	-1.3	-12.5%	-9.6%	-3.1%
5 to 3	Bexley	Brentwood	33.4	55.3	36.3	34.3	44.7	46.0	0.8	-10.5	9.7	+2.5%	-19.1%	+26.7%
5 to 4	Bexley	Basildon	36.5	58.5	37.4	47.2	48.9	57.9	10.7	-9.6	20.5	+29.4%	-16.4%	+54.9%
6 to 1	Godstone	Cheshunt	91.2	91.5	59.8	91.2	88.9	61.5	-0.0	-2.6	1.7	-0.1%	-2.8%	+2.9%
6 to 2	Godstone	Romford	65.9	76.8	51.5	61.4	72.4	50.9	-4.5	-4.4	-0.6	-6.8%	-5.7%	-1.2%
6 to 3	Godstone	Brentwood	63.0	79.3	47.7	63.9	69.4	55.2	0.8	-9.8	7.5	+1.3%	-12.4%	+15.7%
6 to 4	Godstone	Basildon	66.1	82.5	48.0	66.1	76.1	52.1	-0.0	-6.4	4.1	-0.0%	-7.8%	+8.5%
7 to 1	Southfleet	Cheshunt	60.7	63.7	57.1	60.6	59.1	61.5	-0.0	-4.6	4.4	-0.1%	-7.3%	+7.7%
7 to 2	Southfleet	Romford	35.4	49.0	43.4	30.9	42.6	43.6	-4.5	-6.4	0.2	-12.8%	-13.1%	+0.4%
7 to 3	Southfleet	Brentwood	32.7	51.4	38.2	36.1	39.0	55.5	3.3	-12.4	17.3	+10.2%	-24.1%	+45.3%
7 to 4	Southfleet	Basildon	35.5	54.7	39.0	36.0	36.3	59.5	0.5	-18.4	20.6	+1.4%	-33.6%	+52.8%
8 to 1	Maidstone	Cheshunt	88.1	90.3	58.6	88.1	85.7	61.7	-0.0	-4.5	3.1	-0.1%	-5.0%	+5.3%
8 to 2	Maidstone	Romford	63.0	75.5	50.0	58.4	69.2	50.6	-4.6	-6.3	0.6	-7.3%	-8.4%	+1.2%
8 to 3	Maidstone	Brentwood	60.0	78.0	46.1	60.8	66.2	55.1	0.8	-11.8	9.0	+1.4%	-15.1%	+19.5%
8 to 4	Maidstone	Basildon	63.0	81.3	46.5	52.3	68.9	45.5	-10.8	-12.4	-1.0	-17.1%	-15.2%	-2.2%
9 to 1	Rochester	Cheshunt	76.0	104.5	43.6	71.4	87.4	49.0	-4.5	-17.0	5.4	-6.0%	-16.3%	+12.4%
9 to 2	Rochester	Romford	52.7	89.3	35.4	44.5	70.9	37.6	-8.2	-18.4	2.2	-15.6%	-20.6%	+6.2%
9 to 3	Rochester	Brentwood	48.1	92.1	31.3	42.8	65.5	39.2	-5.3	-26.7	7.9	-11.0%	-28.9%	+25.2%
9 to 4	Rochester	Basildon	51.0	95.4	32.0	38.4	63.7	36.1	-12.6	-31.7	4.1	-24.7%	-33.2%	+12.7%
10 to 1	Rainham	Cheshunt	92.6	98.5	56.4	88.5	81.0	65.6	-4.0	-17.5	9.2	-4.3%	-17.7%	+16.3%
10 to 2	Rainham	Romford	67.4	83.7	48.3	62.2	64.3	58.1	-5.2	-19.5	9.8	-7.7%	-23.2%	+20.3%
10 to 3	Rainham	Brentwood	64.4	86.2	44.8	59.8	59.1	60.7	-4.6	-27.2	15.9	-7.1%	-31.5%	+35.6%
10 to 4	Rainham	Basildon	67.4	89.5	45.2	55.3	57.3	57.9	-12.1	-32.2	12.7	-17.9%	-35.9%	+28.1%

This page is intentionally blank

Appendix E – Sensitivity Tests – Flow Comparisons to Core Scenario

- E.1.1 The analysis below is presented in order to compare the core scenario with the low and high growth scenarios. Figure E1 to Figure E12 provide comparisons of the total PCU flow of the low growth scenario minus the core scenario for the Do Minimum. Figure E13 to Figure E24 provide the same comparison for the Do Something. Figure E25 to Figure E36 provide comparisons of the total PCU flow of the high growth scenario minus the core scenario for the Do Minimum. Figure E37 to Figure E48 provide the same comparison for the Do Something. Blue colours indicate that there is more flow in the core scenario, green colours indicate that there is less flow in the core scenario.

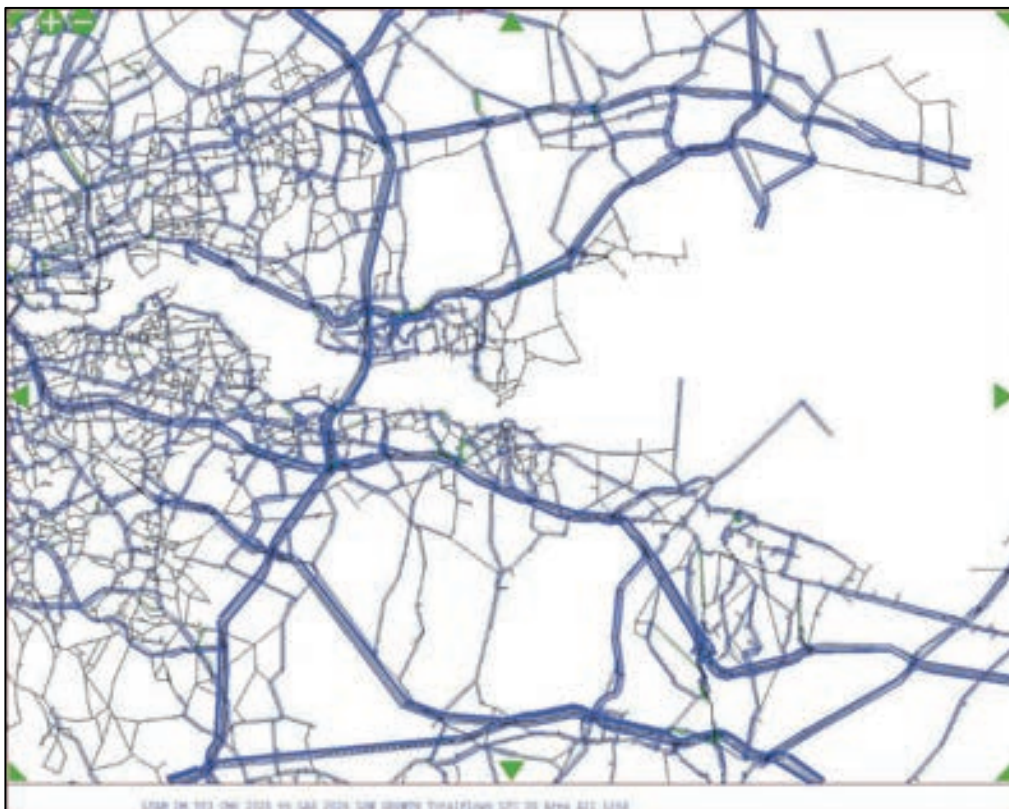
Figure E1 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026 DM AM Peak



**Figure E2 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026
DM Inter Peak**



**Figure E3 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026
DM PM Peak**



**Figure E4 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031
DM AM Peak**



**Figure E5 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031
DM Inter Peak**



**Figure E6 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031
DM PM Peak**



**Figure E7 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041
DM AM Peak**



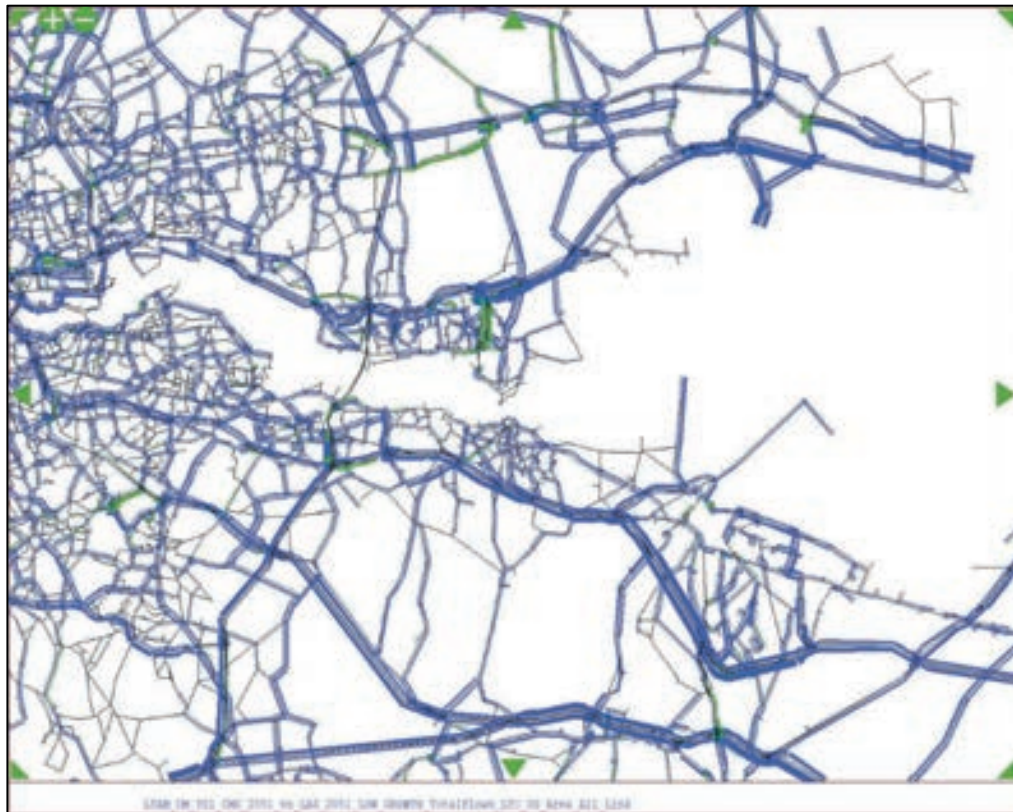
Figure E8 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DM Inter Peak



Figure E9 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DM PM Peak



**Figure E10 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051
DM AM Peak**



**Figure E11 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051
DM Inter Peak**



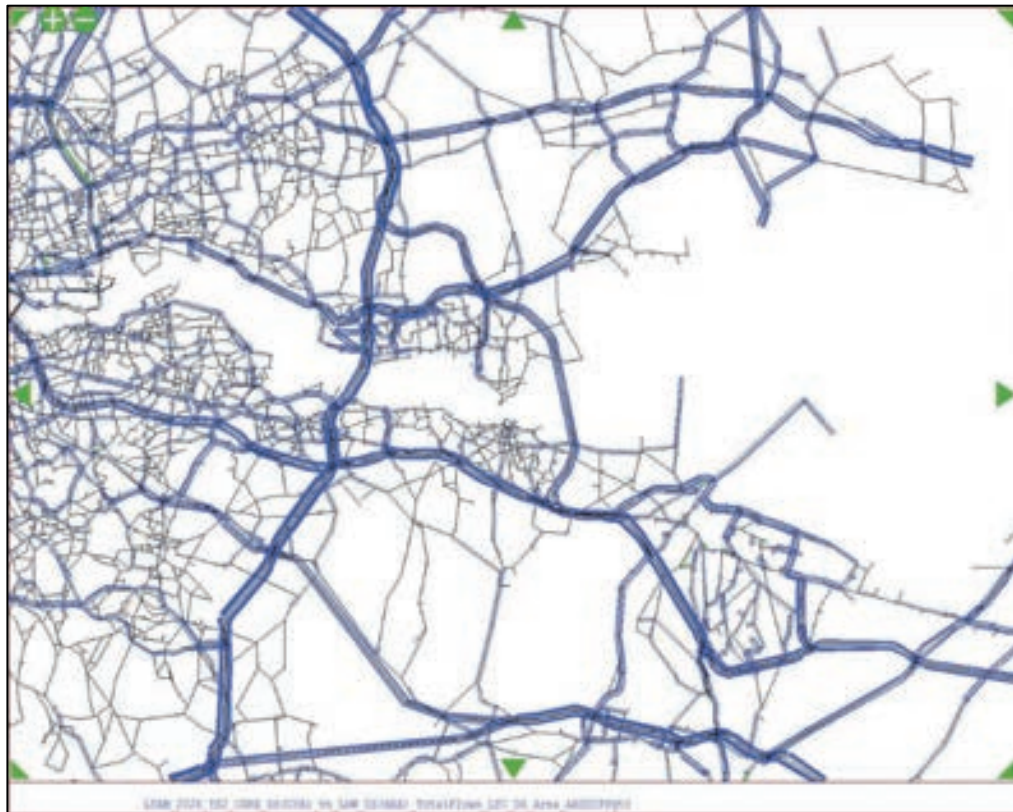
**Figure E12 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051
DM PM Peak**



**Figure E13 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026
DS AM Peak**



**Figure E14 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026
DS Inter Peak**



**Figure E15 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2026
DS PM Peak**



Figure E16 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DS AM Peak



Figure E17 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DS Inter Peak



Figure E18 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2031 DS PM Peak

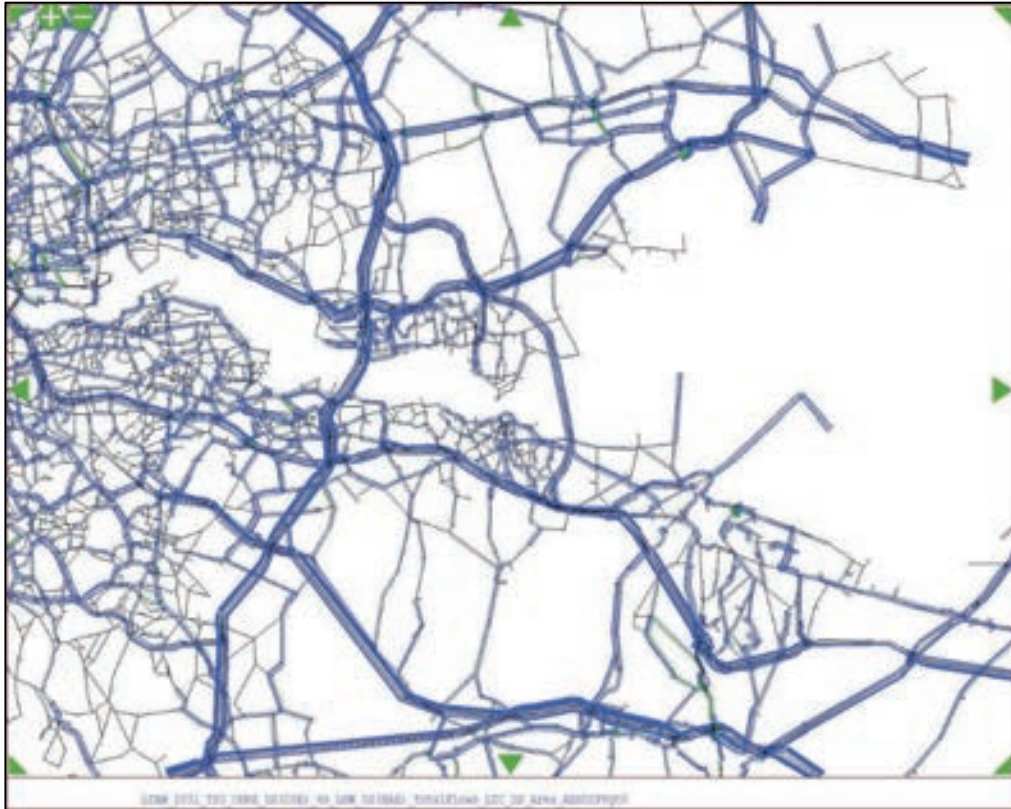


Figure E19 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041 DS AM Peak



**Figure E20 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041
DS Inter Peak**



**Figure E21 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2041
DS PM Peak**



Figure E22 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS AM Peak

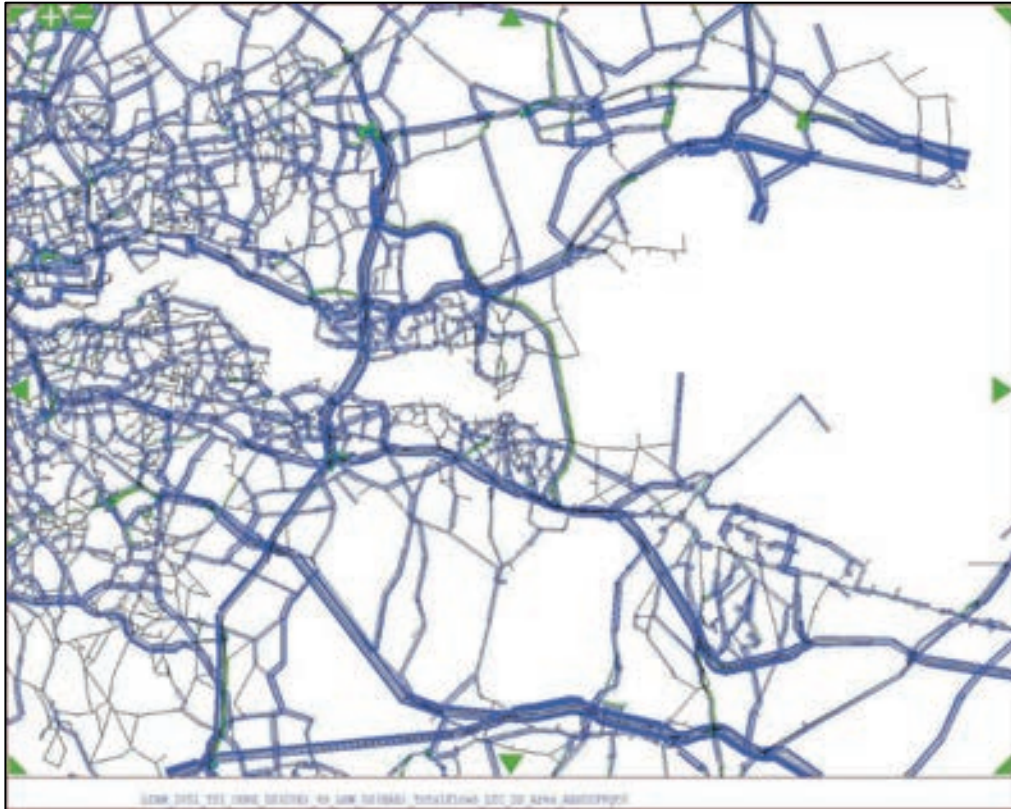


Figure E23 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS Inter Peak



Figure E24 – Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS PM Peak



Figure E25 – Flow Difference Plot – High Growth Scenario Minus Core Scenario 2026 DM AM Peak



**Figure E26 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2026 DM Inter Peak**



**Figure E27 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2026 DM PM Peak**



**Figure E28 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2031 DM AM Peak**



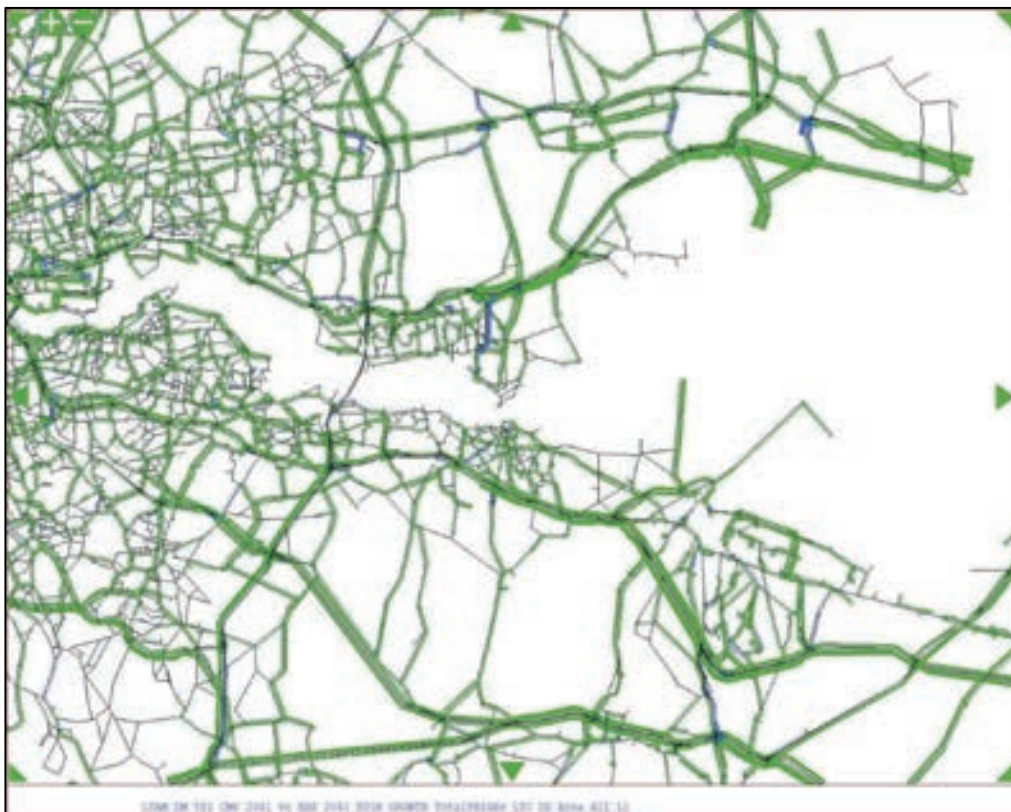
**Figure E29 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2031 DM Inter Peak**



**Figure E30 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2031 DM PM Peak**



**Figure E31 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2041 DM AM Peak**



**Figure E32 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2041 DM Inter Peak**



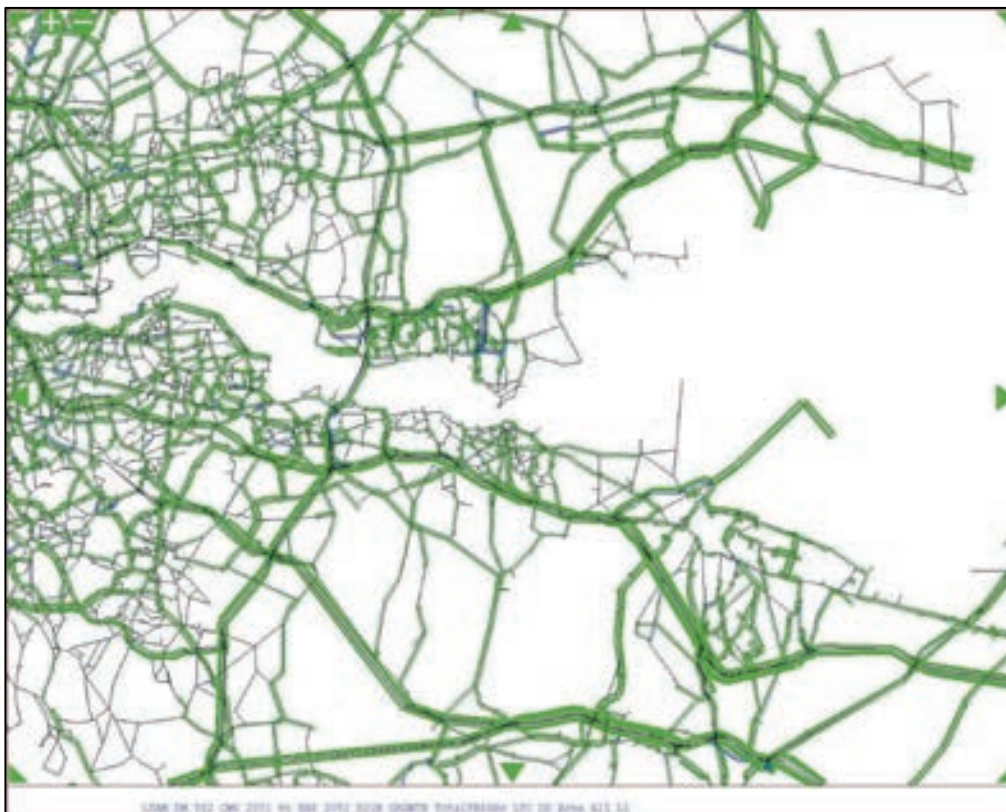
**Figure E33 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2041 DM PM Peak**



**Figure E34 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2051 DM AM Peak**



**Figure E35 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2051 DM Inter Peak**



**Figure E36 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2051 DM PM Peak**



**Figure E37 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2026 DS AM Peak**



**Figure E38 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2026 DS Inter Peak**



**Figure E39 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2026 DS PM Peak**



**Figure E40 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2031 DS AM Peak**



**Figure E41 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2031 DS Inter Peak**



**Figure E42 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2031 DS PM Peak**



**Figure E43 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2041 DS AM Peak**



**Figure E44 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2041 DS Inter Peak**



**Figure E45 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2041 DS PM Peak**



**Figure E46 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2051 DS AM Peak**



**Figure E47 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2051 DS Inter Peak**



**Figure E48 – Flow Difference Plot – High Growth Scenario Minus Core Scenario
2051 DS PM Peak**



This page is intentionally blank

Appendix F – Sensitivity Tests – Outputs to Operational Assessment

F.1 Introduction

F.1.1 This appendix provides LTAM forecast model outputs for operational assessment for the low and high growth sensitivity tests for each of the forecast years. The analysis presented is similar to that produced for the core scenario in Chapter 9. The statistics are provided for completeness. The key messages are generally the same as for the core scenario. No detailed commentary of these results is provided.

F.2 LTAM Sensitivity Tests – Outputs to Operational Assessment

F.2.1 Figure F1 to Figure F12 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2026 low growth scenario.

F.2.2 Figure F13 to Figure F24 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2031 low growth scenario.

F.2.3 Figure F25 to Figure F36 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2041 low growth scenario.

F.2.4 Figure F37 to Figure F48 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2051 low growth scenario.

F.2.5 Figure F49 to Figure F60 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2026 high growth scenario.

F.2.6 Figure F61 to Figure F72 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2031 high growth scenario.

F.2.7 Figure F73 to Figure F84 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2041 high growth scenario.

F.2.8 Figure F85 to Figure F96 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2051 high growth scenario.

Figure F1 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 Low Growth All Vehicles (PCU's)

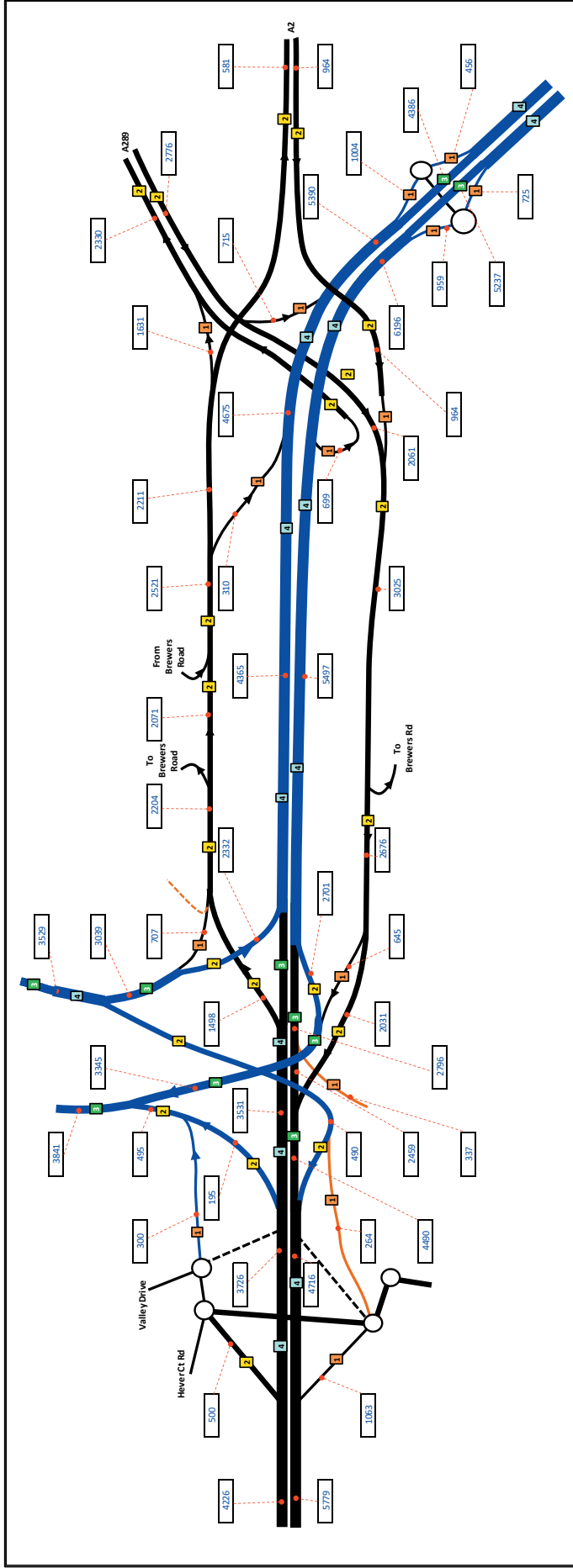


Figure F2 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak HGV (PCU's)

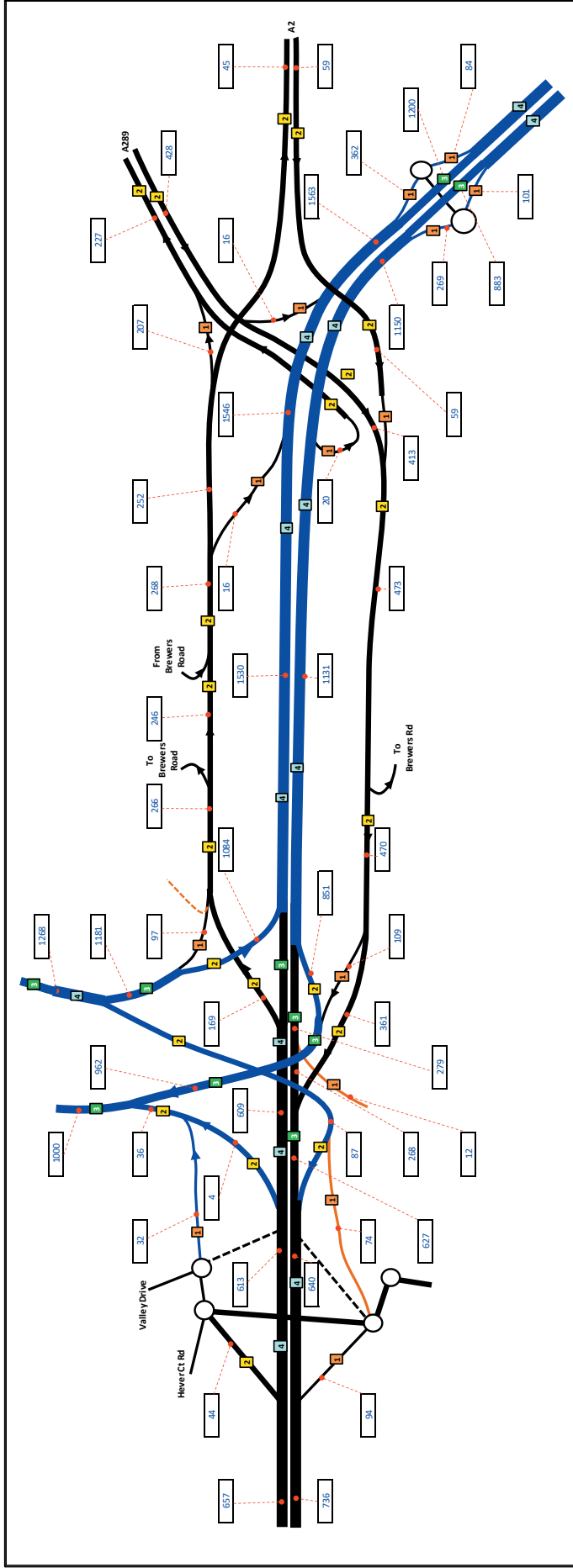


Figure F3 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak All Vehicles (PCU's)

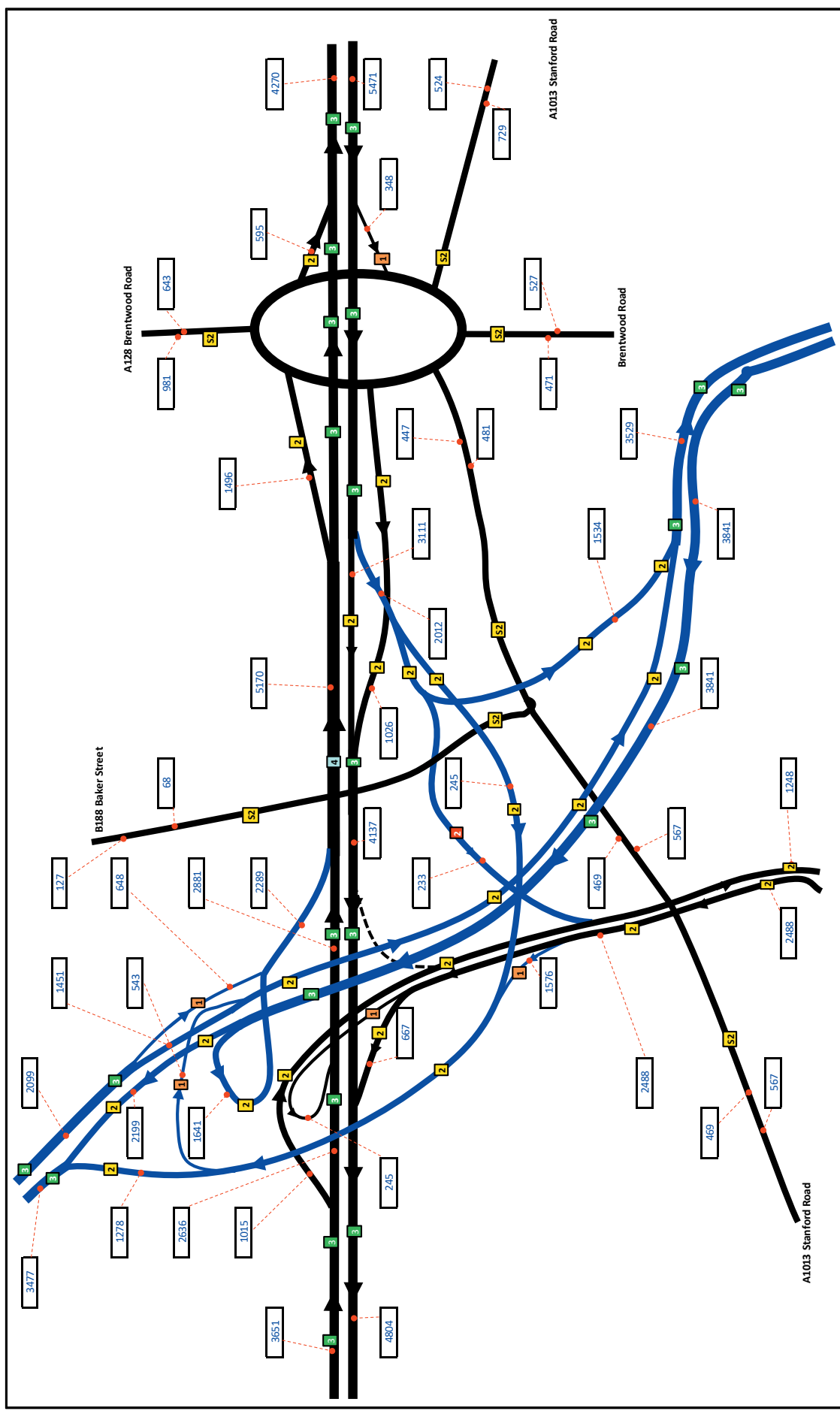


Figure F4 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak HGV (PCU's)

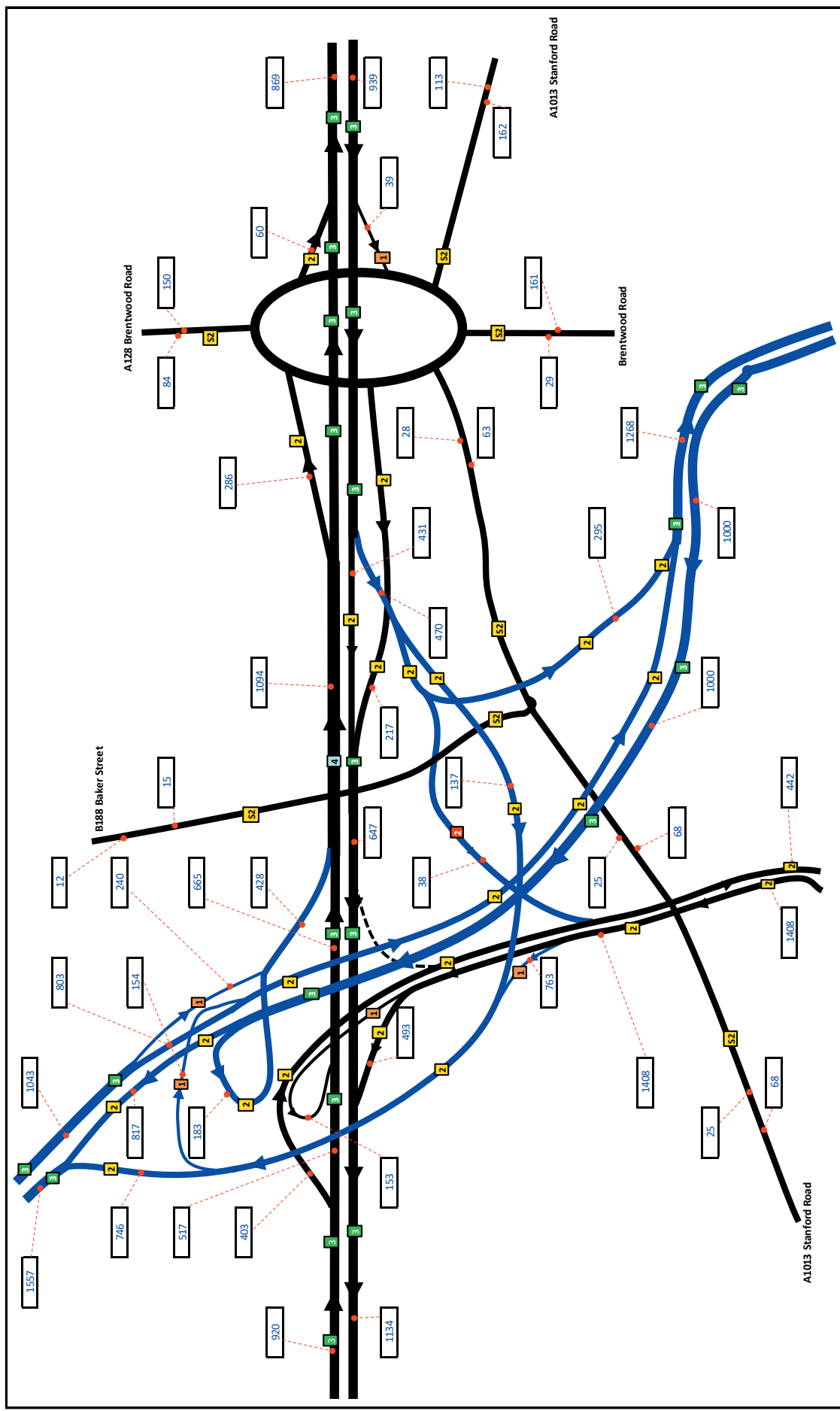


Figure F5 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak All Vehicles (PCU's)

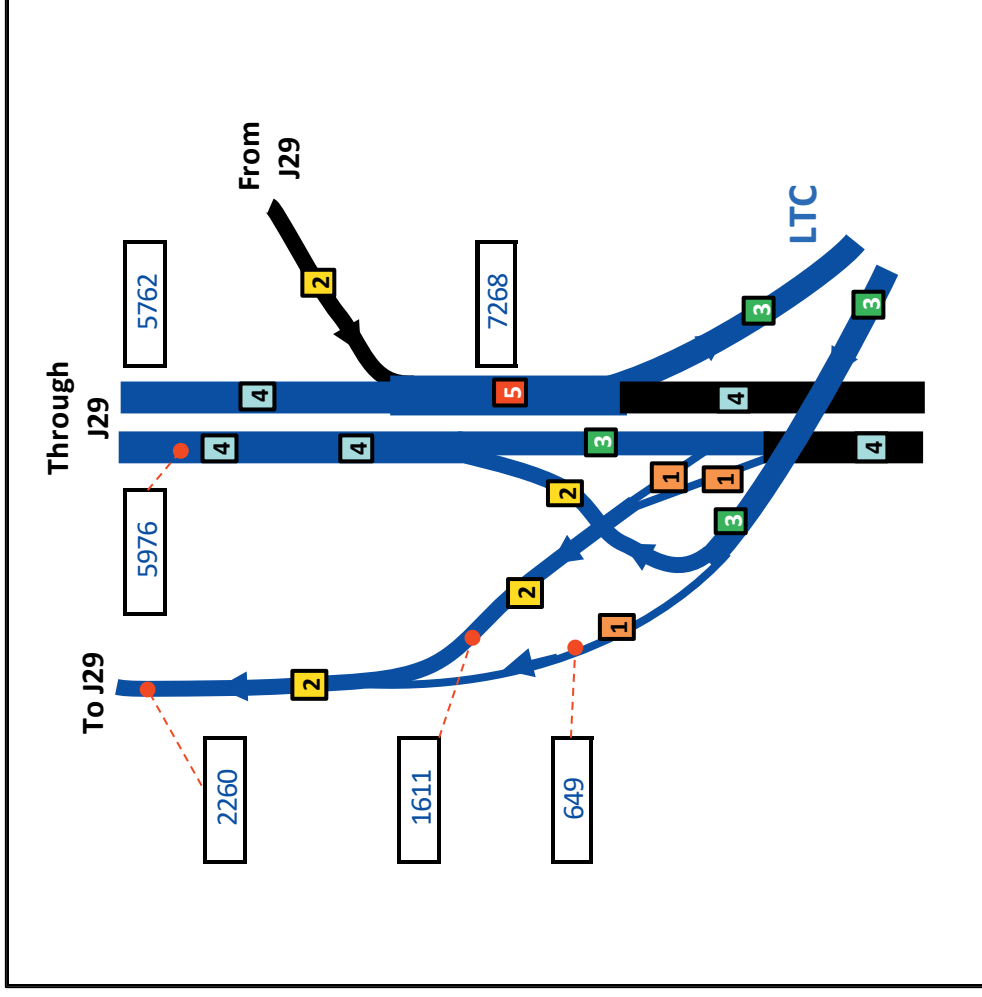


Figure F6 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth AM Peak HGV (PCU's)

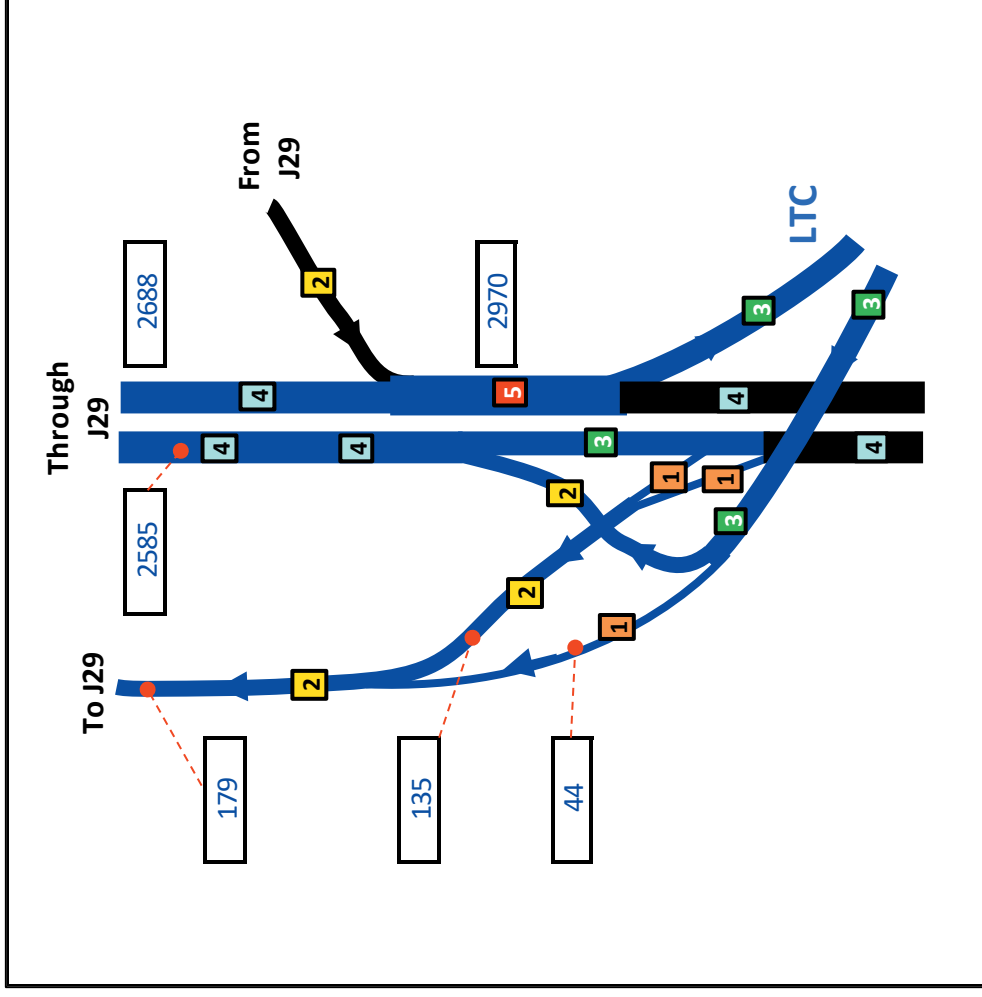


Figure F7 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak All Vehicles (PCU's)

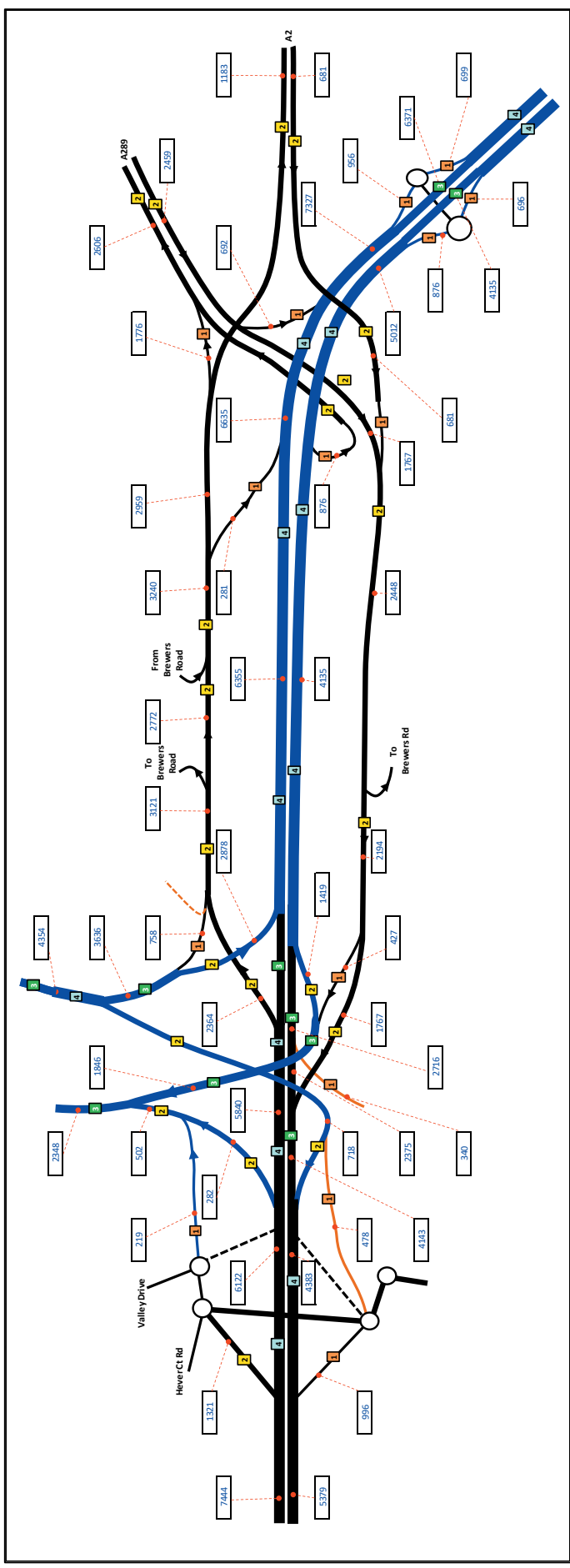


Figure F9 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak All Vehicles (PCU's)

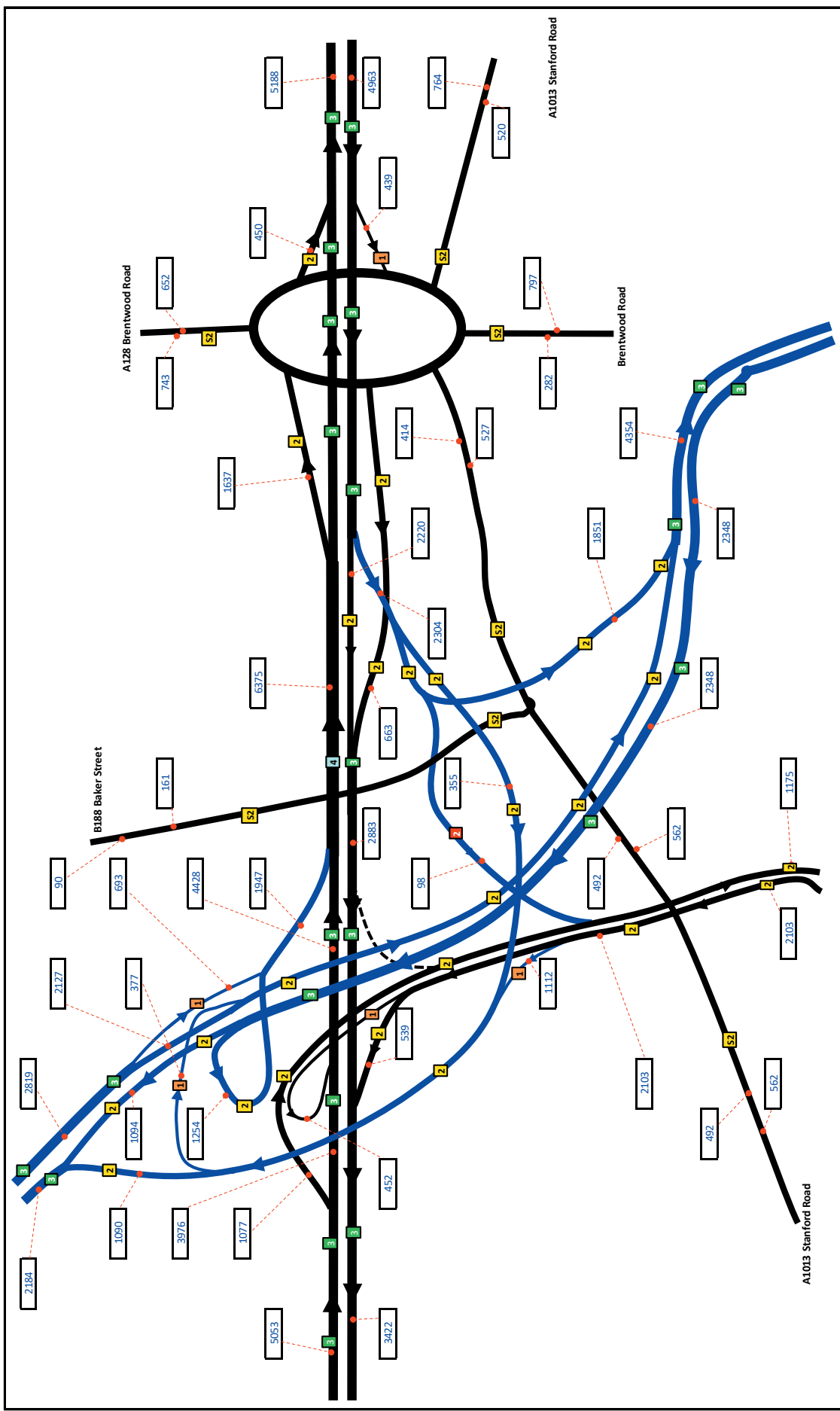


Figure F10 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak HGV (PCU's)

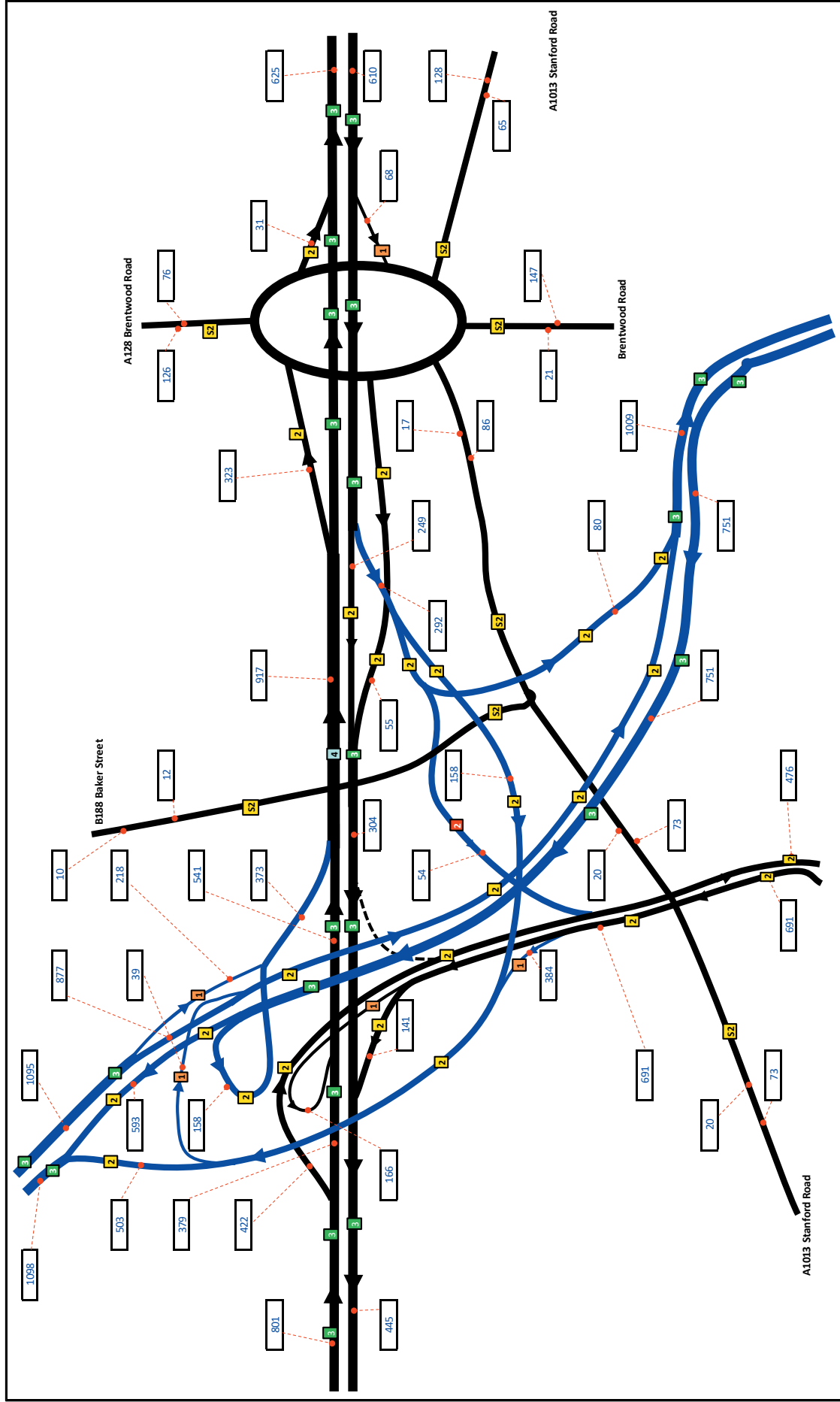


Figure F11 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak All Vehicles (PCU's)

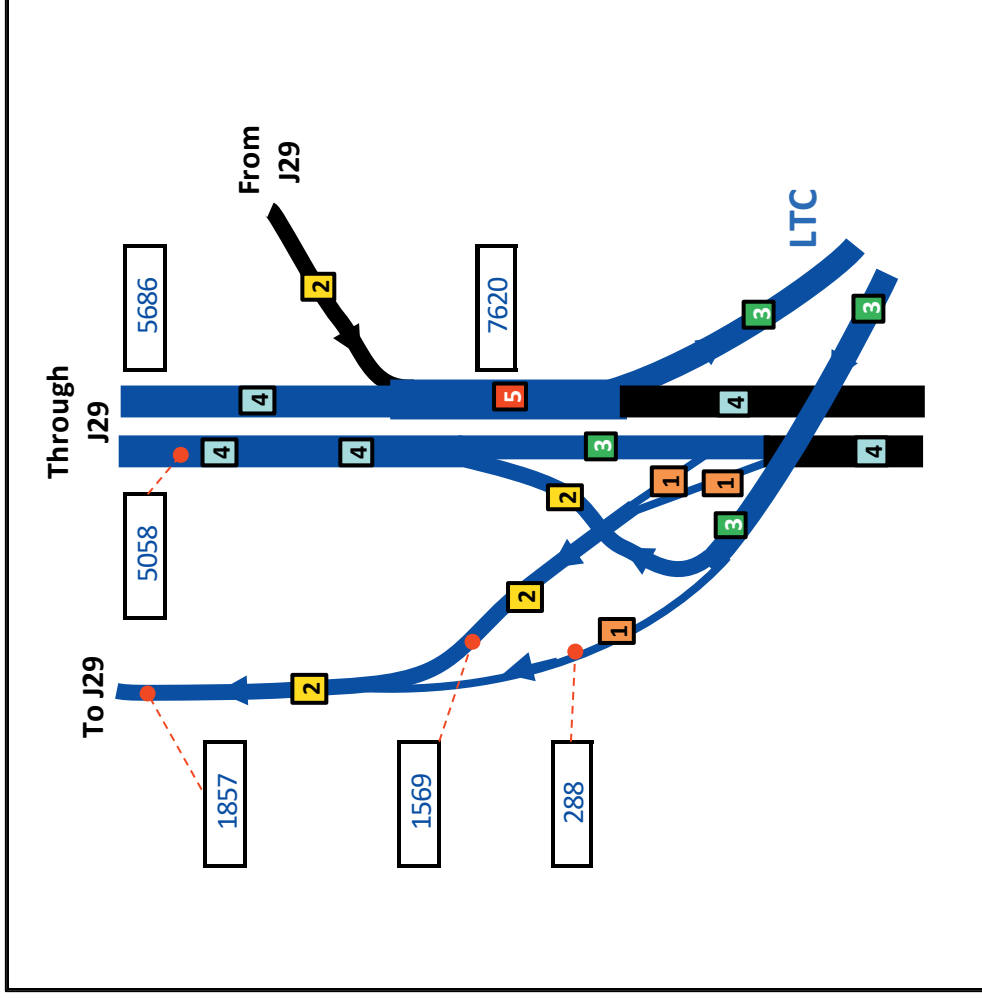


Figure F12 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 Low Growth PM Peak HGV (PCU's)

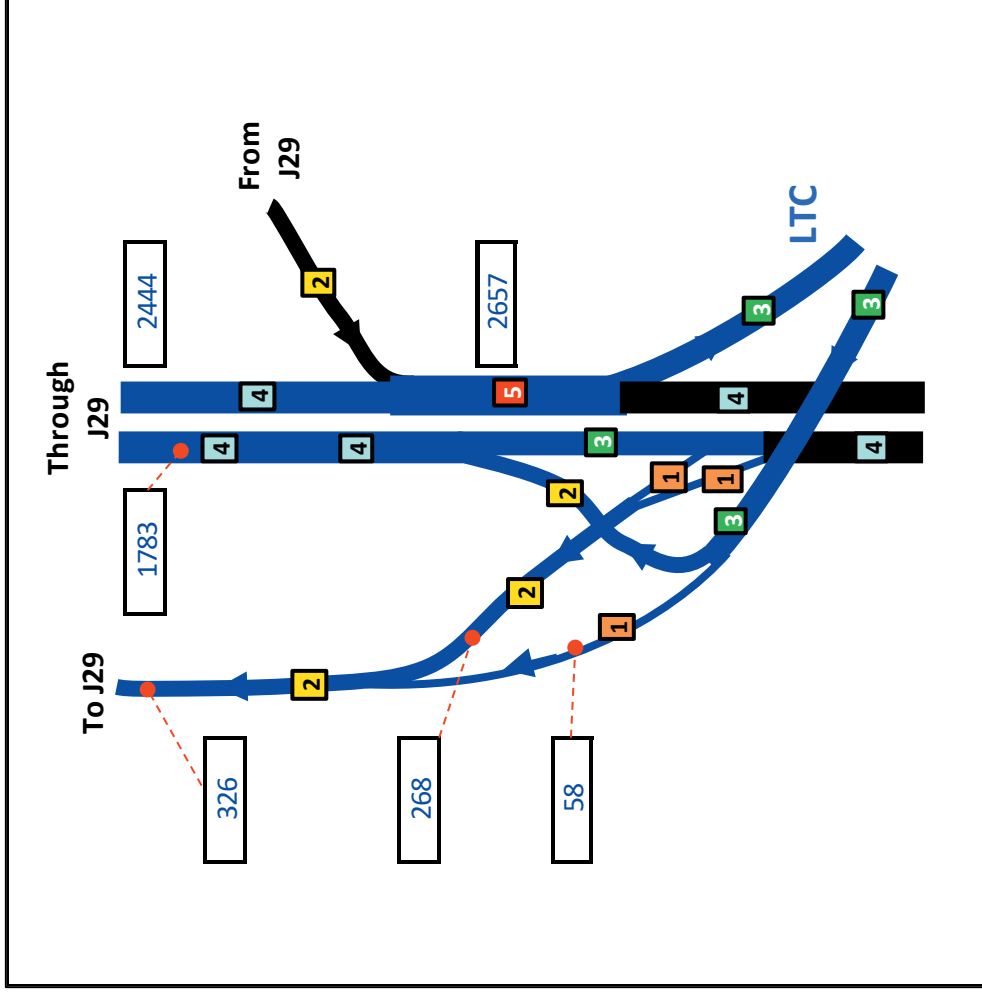


Figure F13 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak All Vehicles (PCU's)

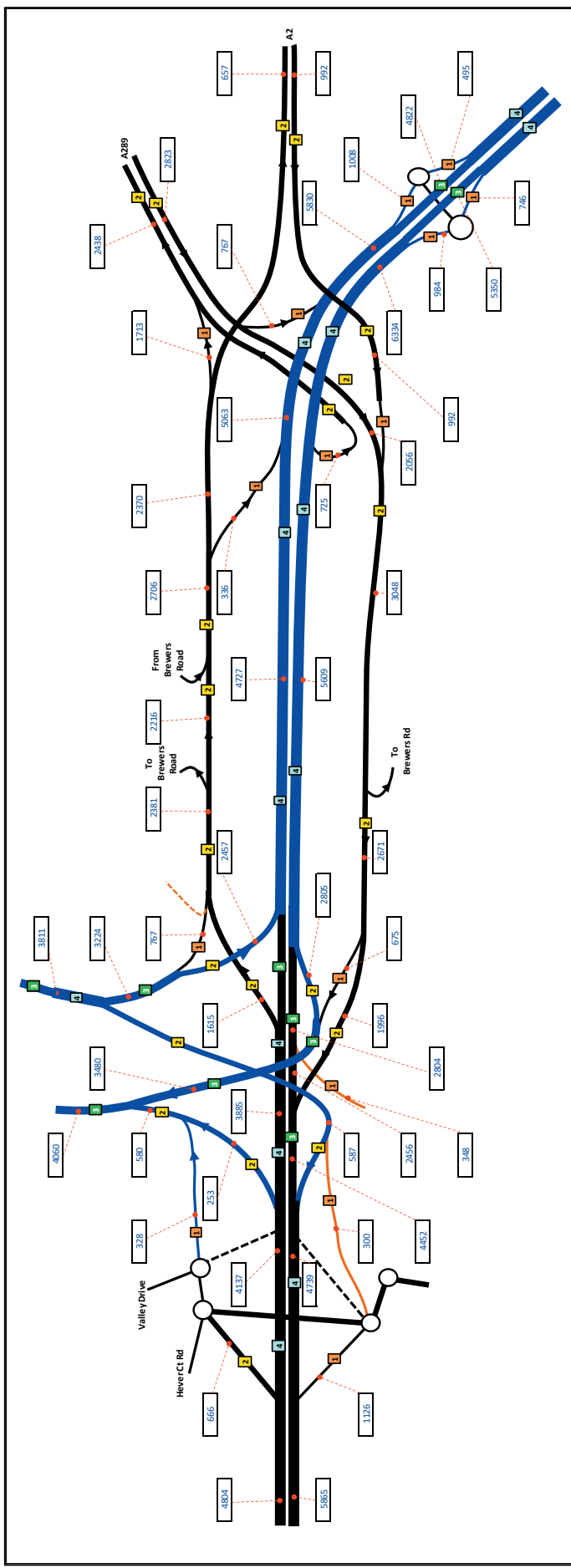


Figure F14 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak HGV (PCU's)

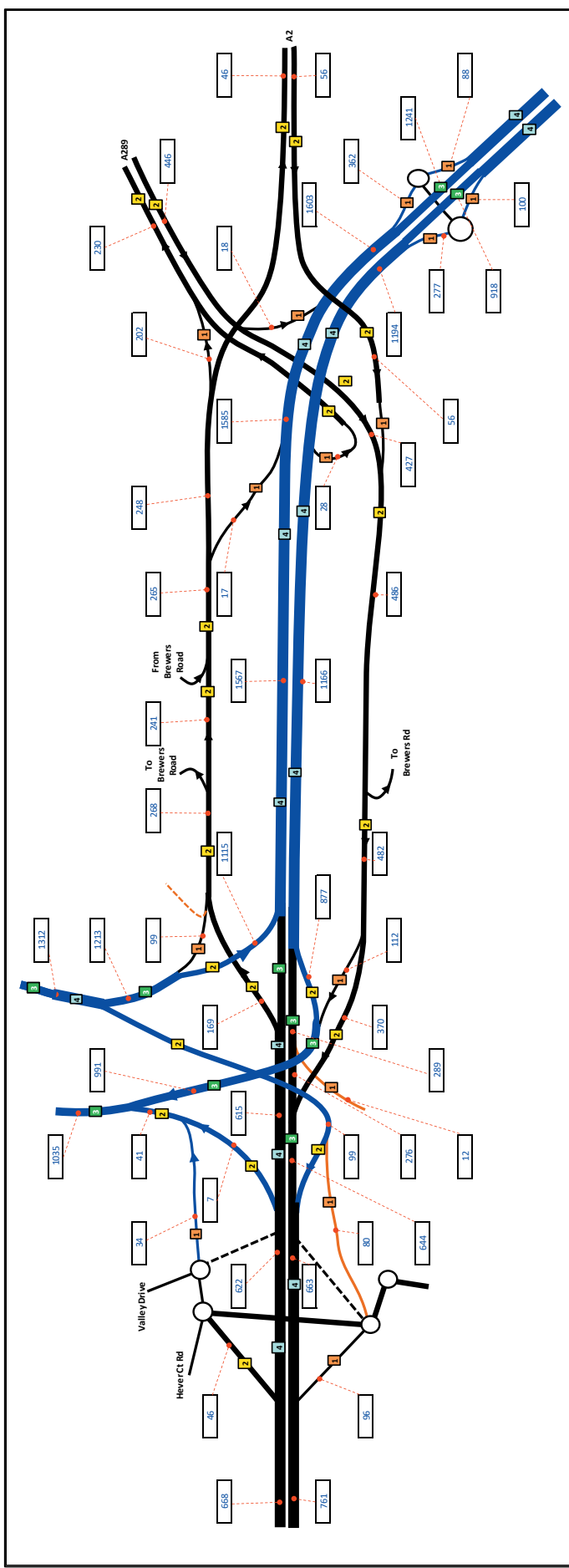


Figure F16 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak HGV (PCU's)

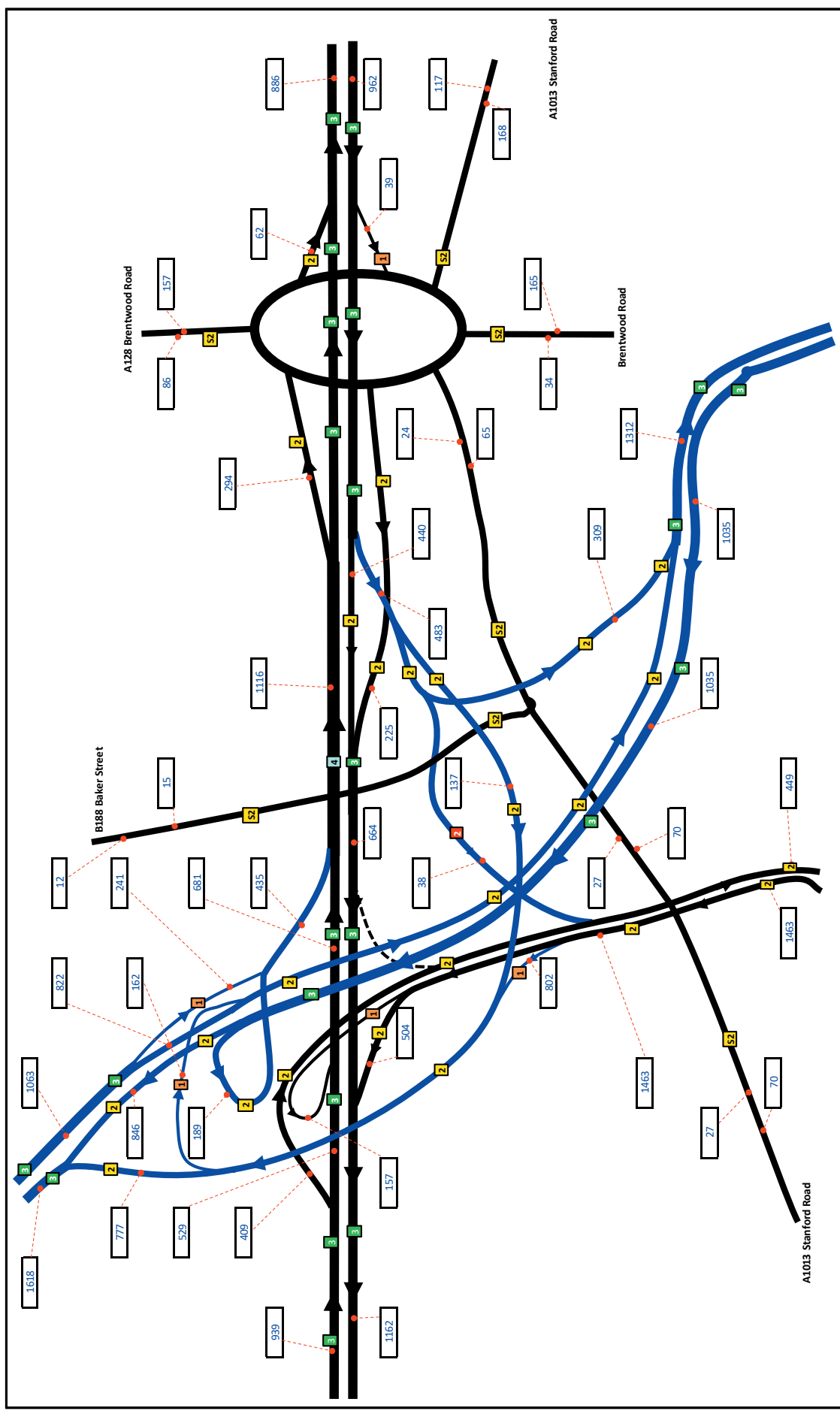


Figure F17 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak All Vehicles (PCU's)

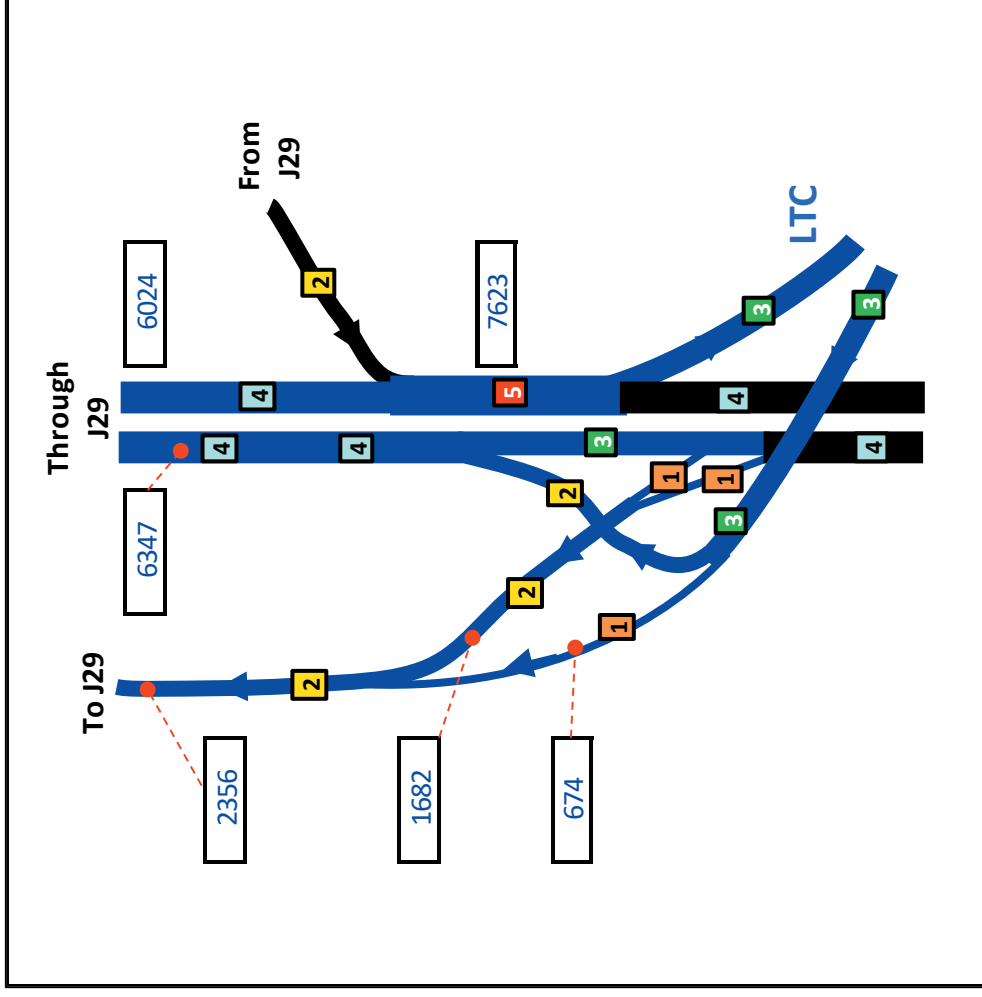


Figure F18 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth AM Peak HGV (PCU's)

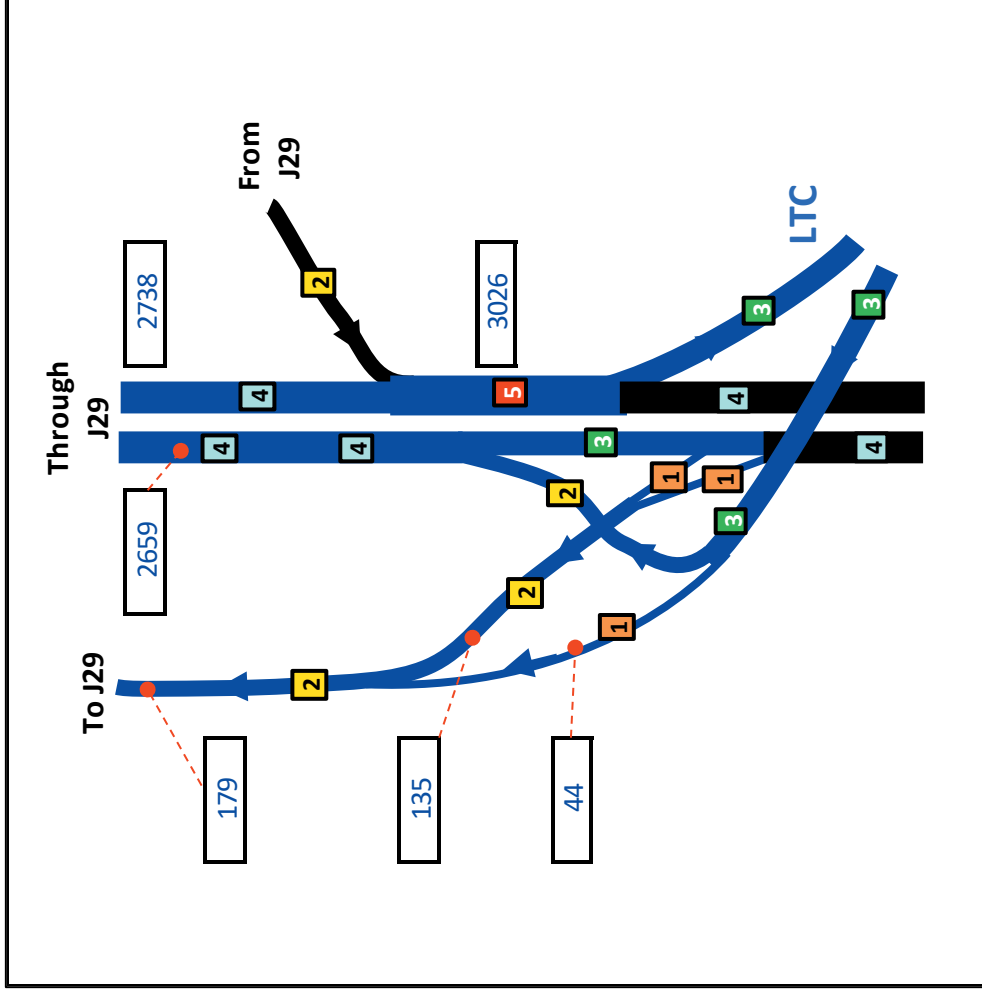


Figure F23 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak All Vehicles (PCU's)

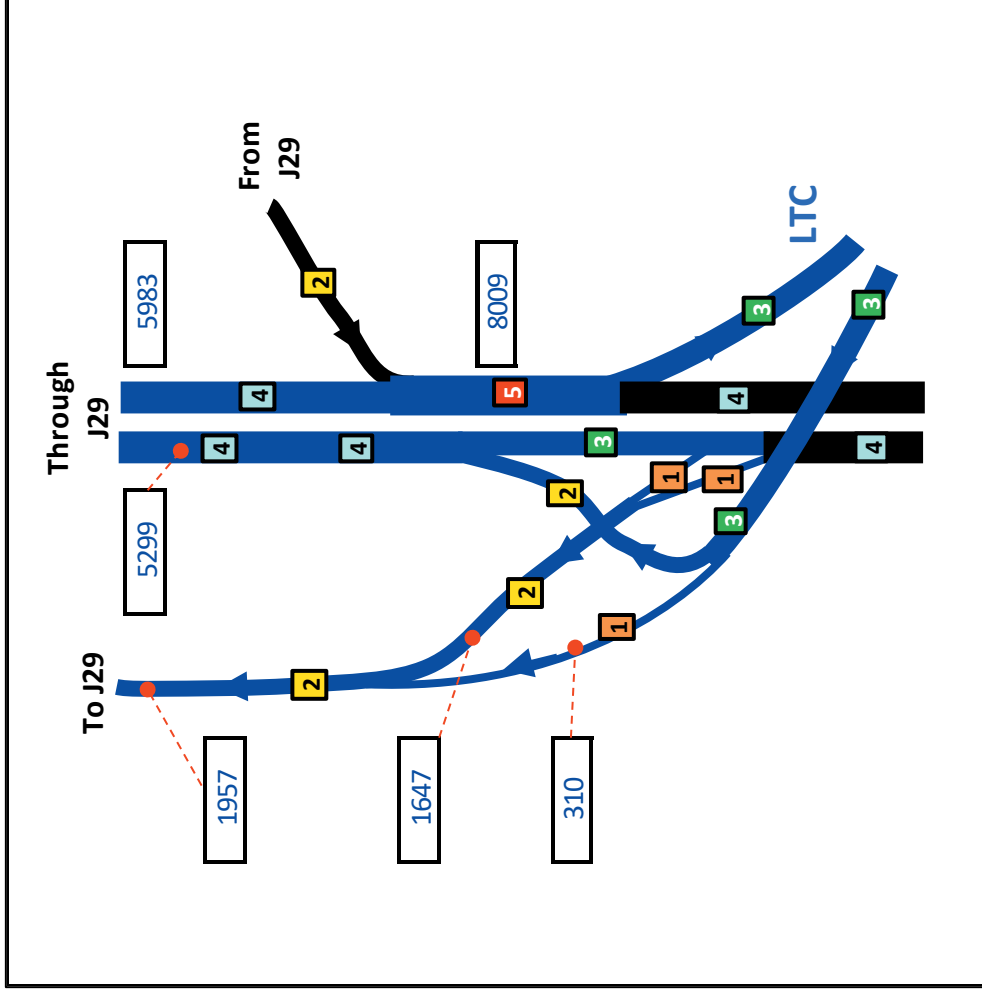


Figure F24 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 Low Growth PM Peak HGV (PCU's)

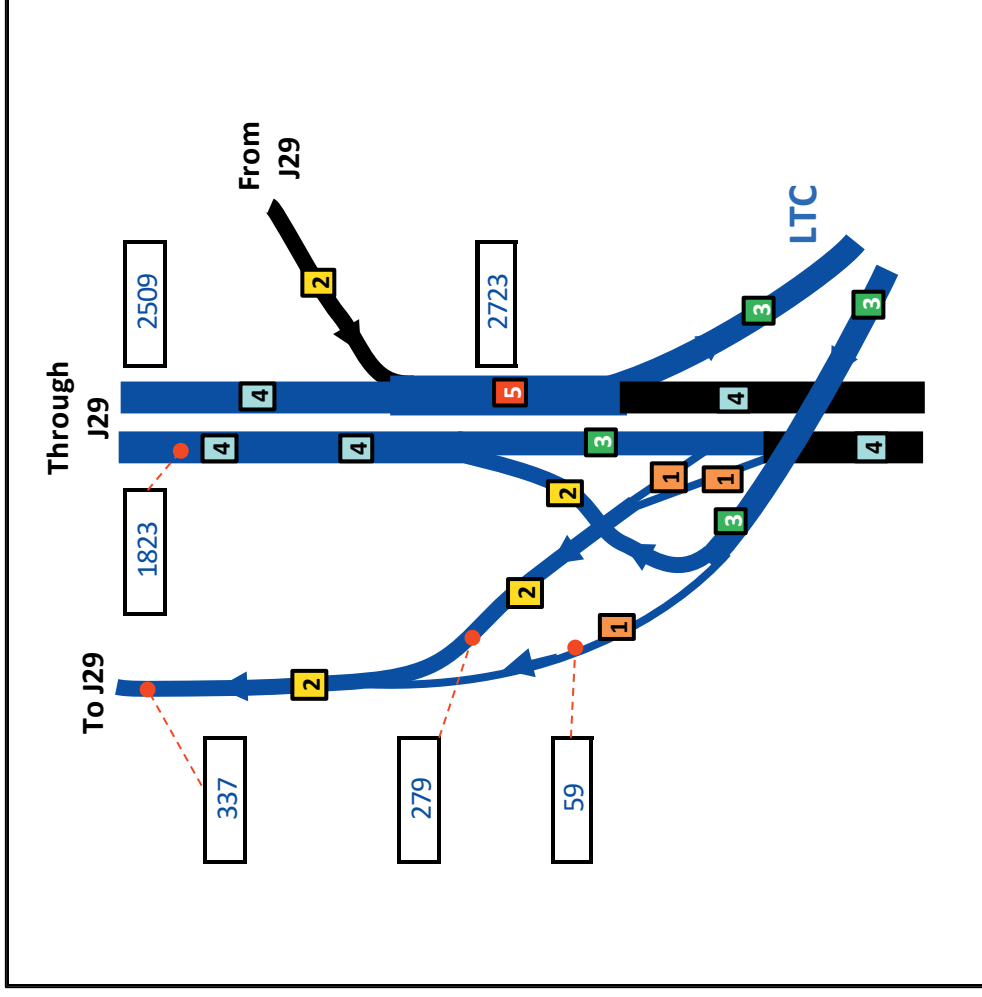


Figure F25 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak All Vehicles (PCU's)

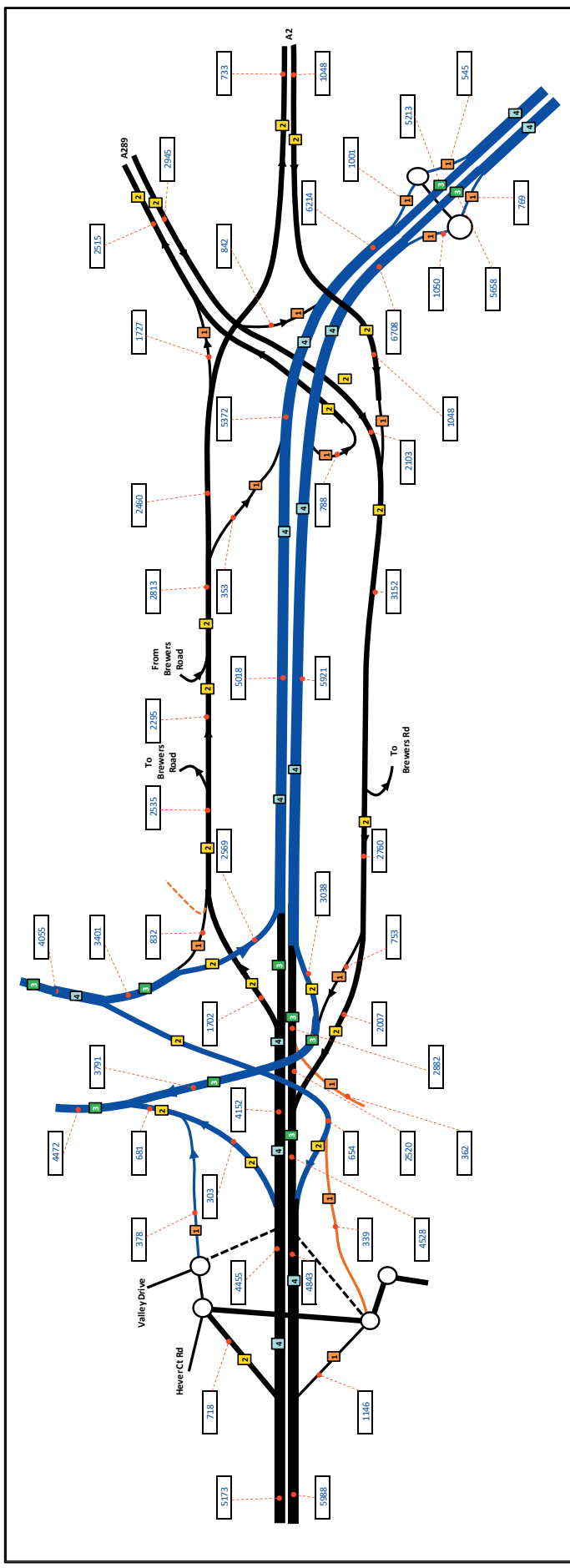


Figure F26 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak HGV (PCU's)

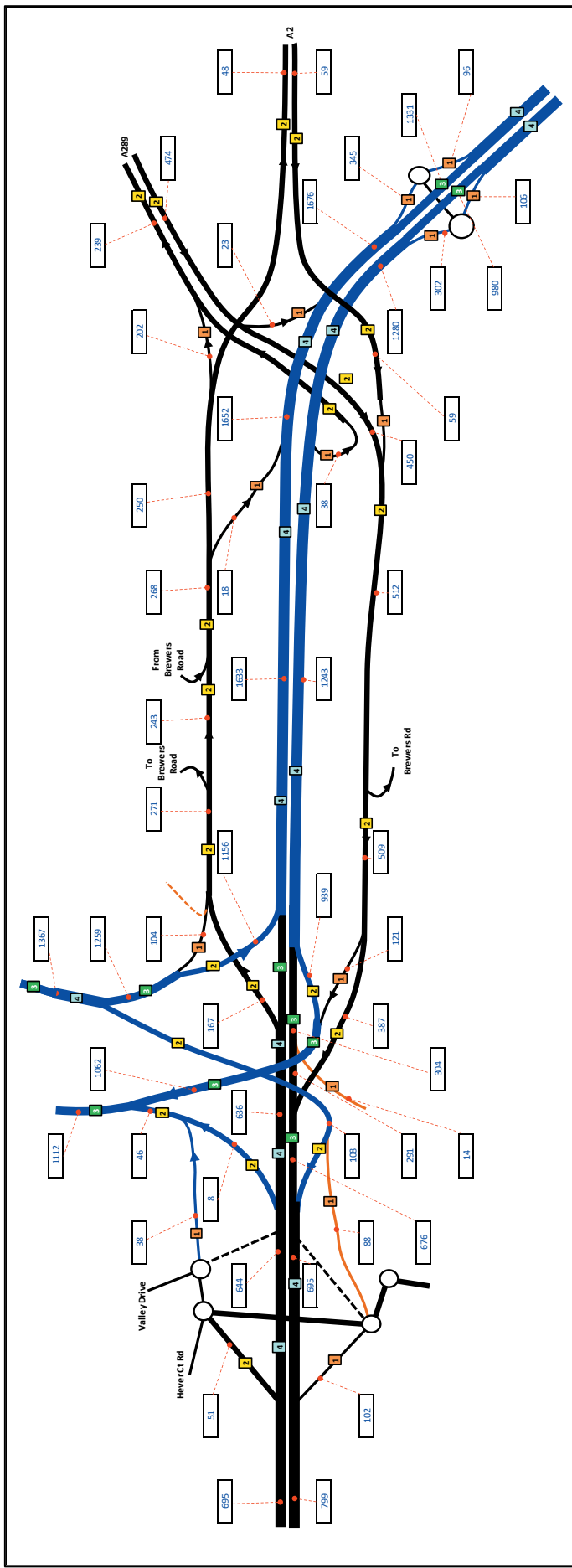


Figure F28 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak HGV (PCU's)

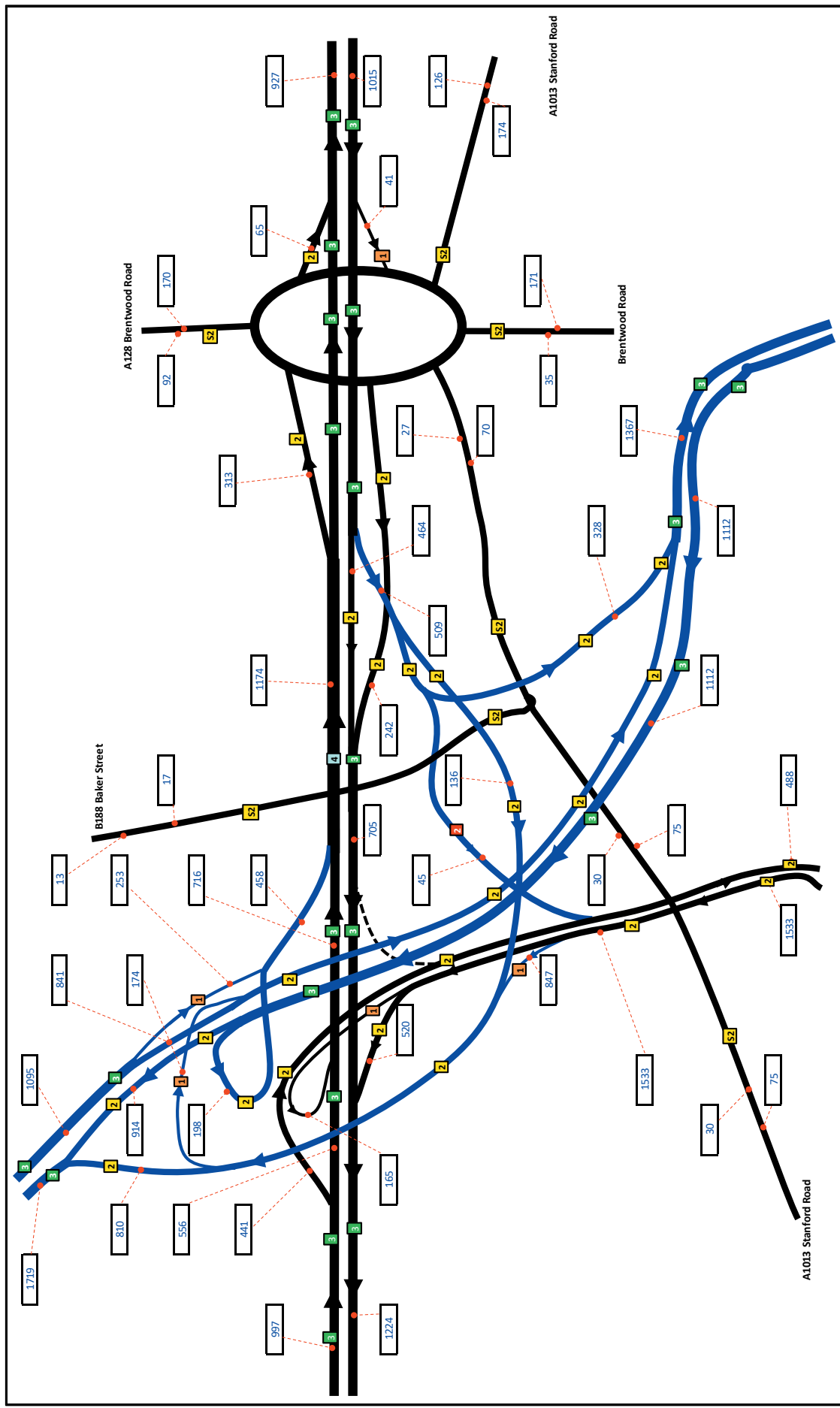


Figure F29 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 Low Growth AM Peak All Vehicles (PCU's)

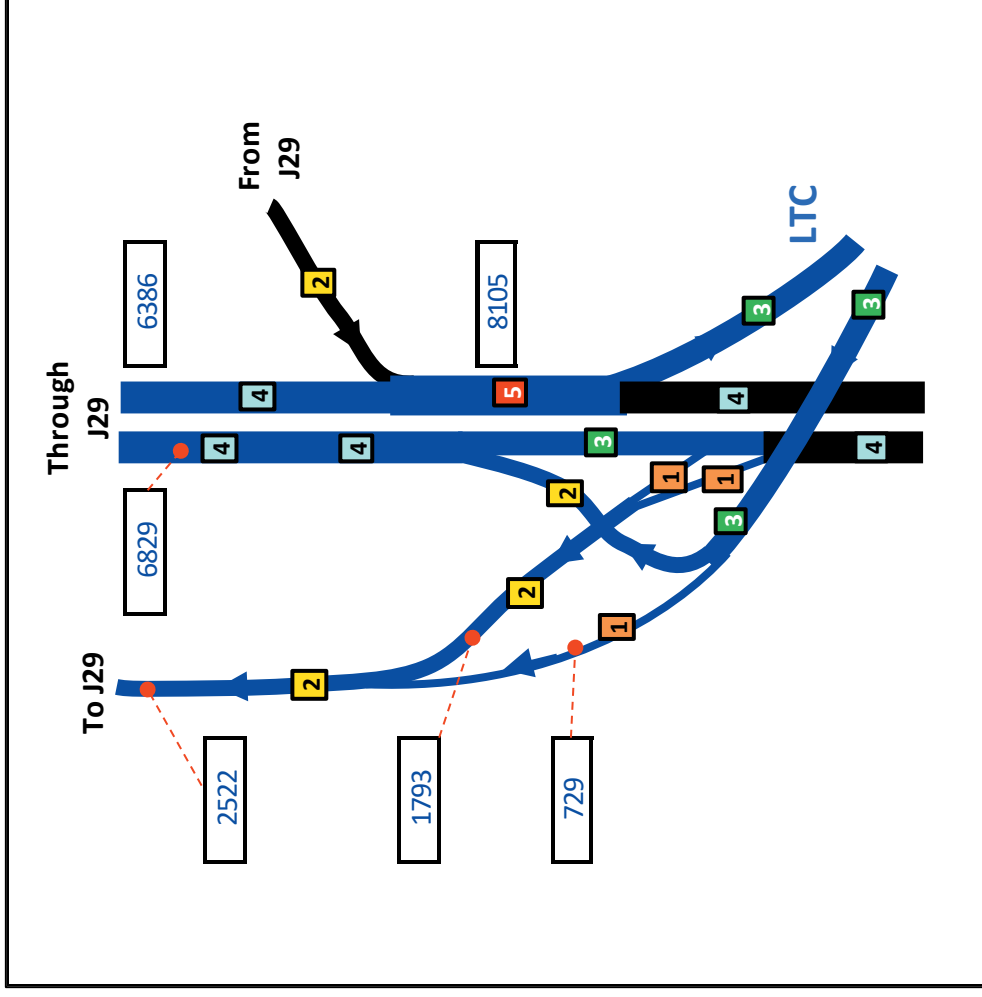


Figure F31 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak All Vehicles (PCU's)

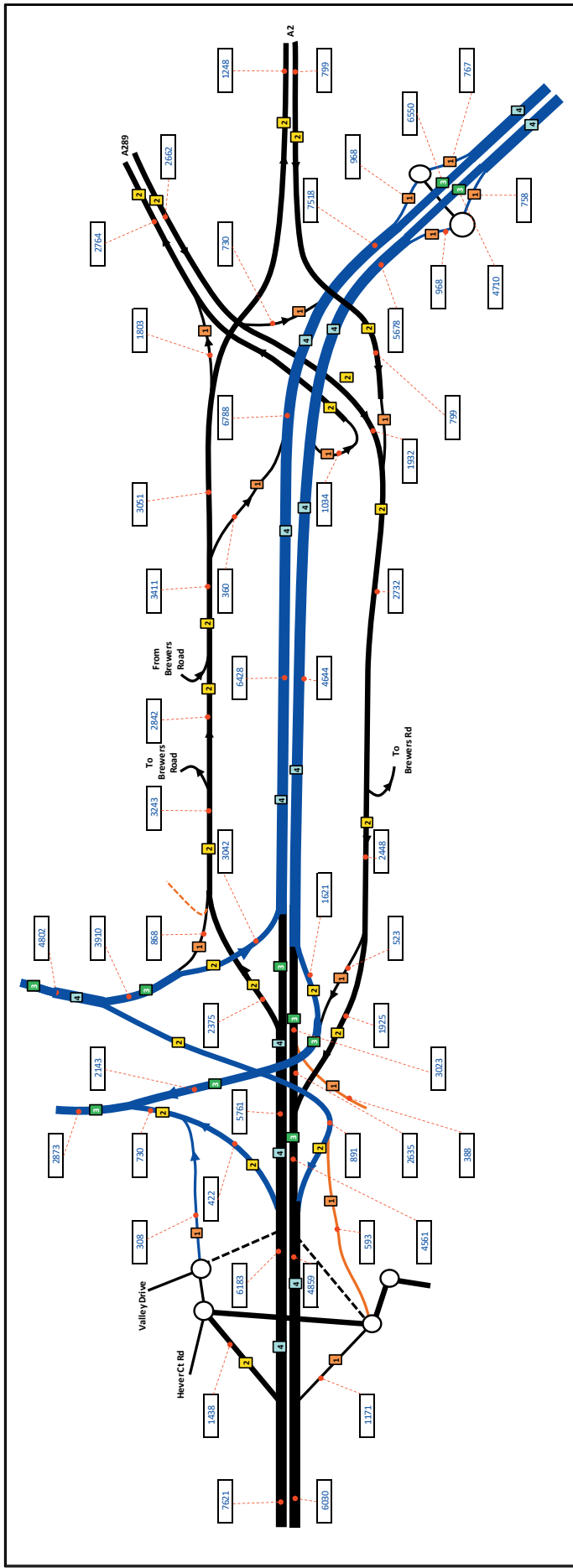


Figure F33 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak All Vehicles (PCU's)

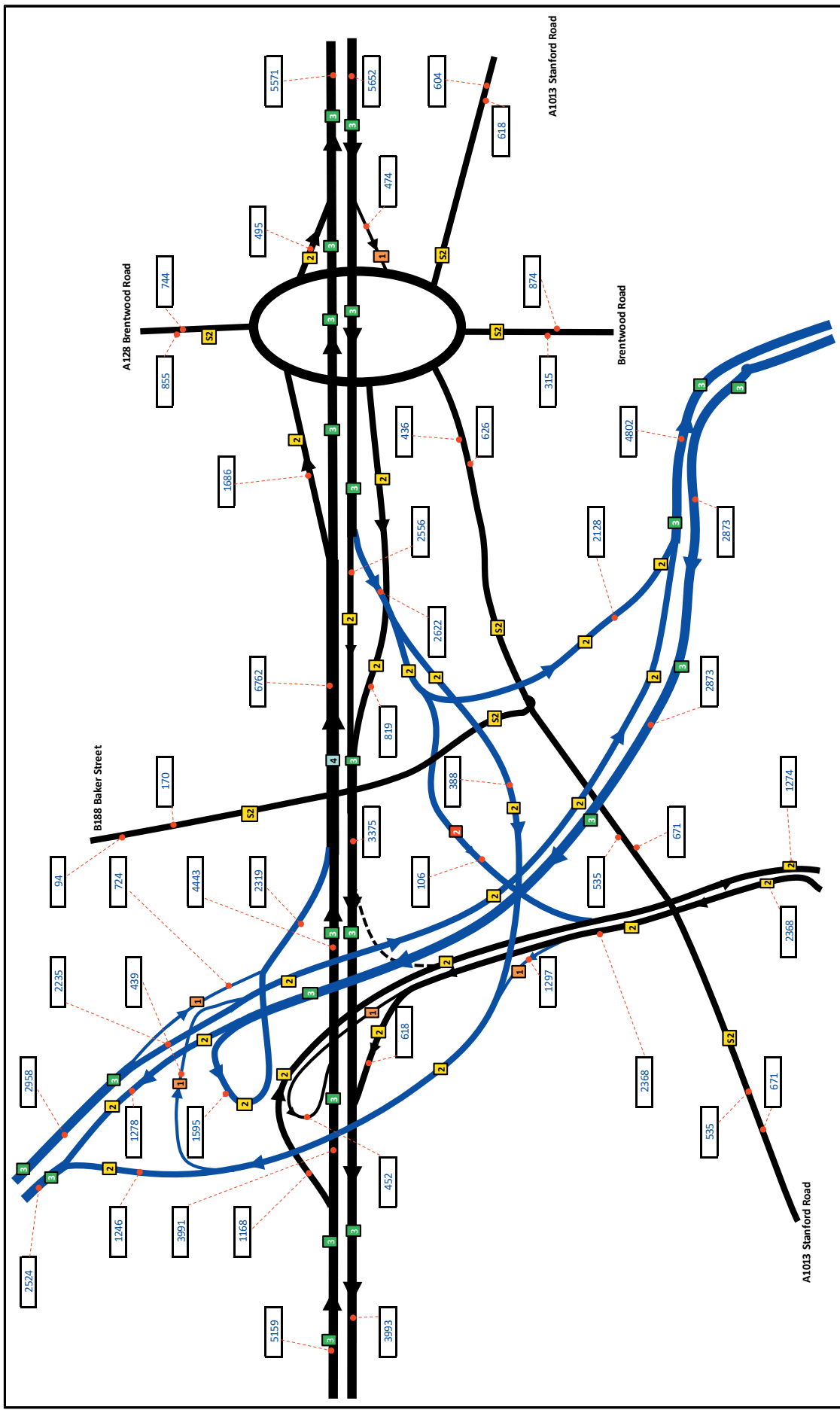


Figure F35 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak All Vehicles (PCU's)

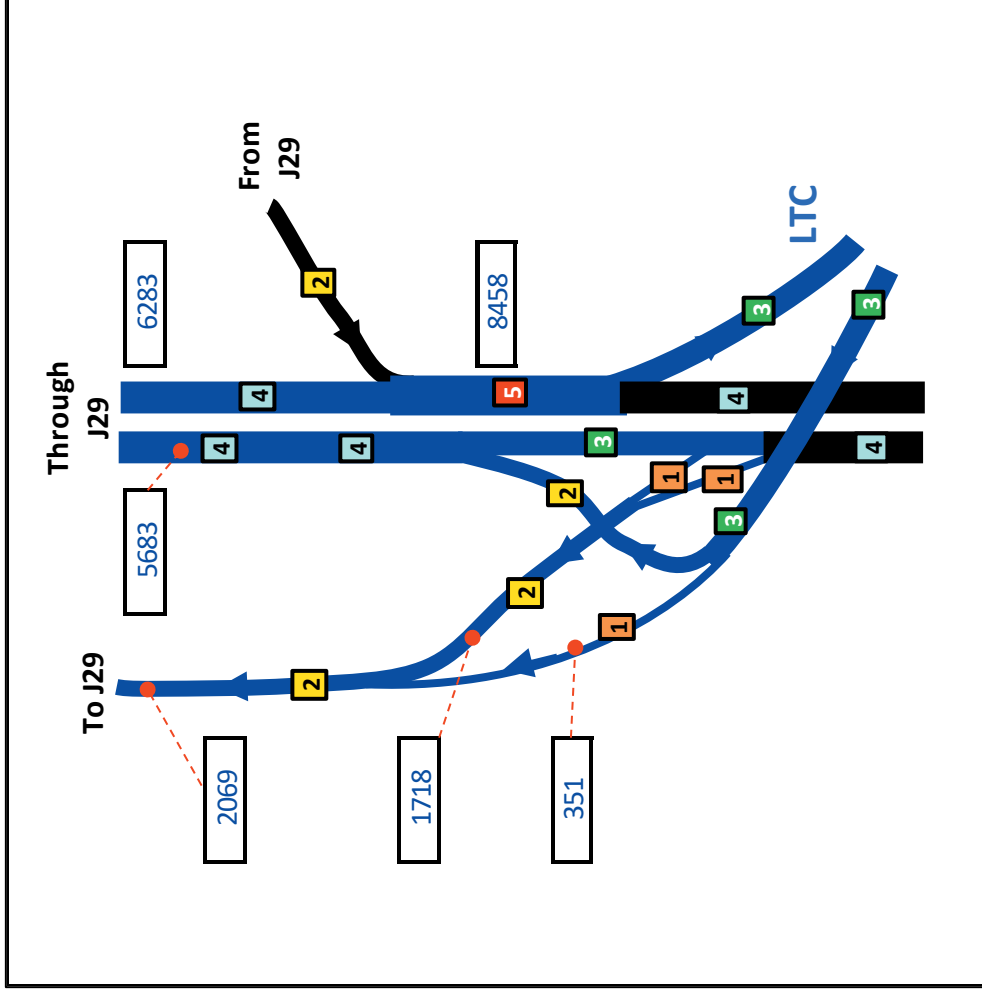


Figure F36 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 Low Growth PM Peak HGV (PCU's)

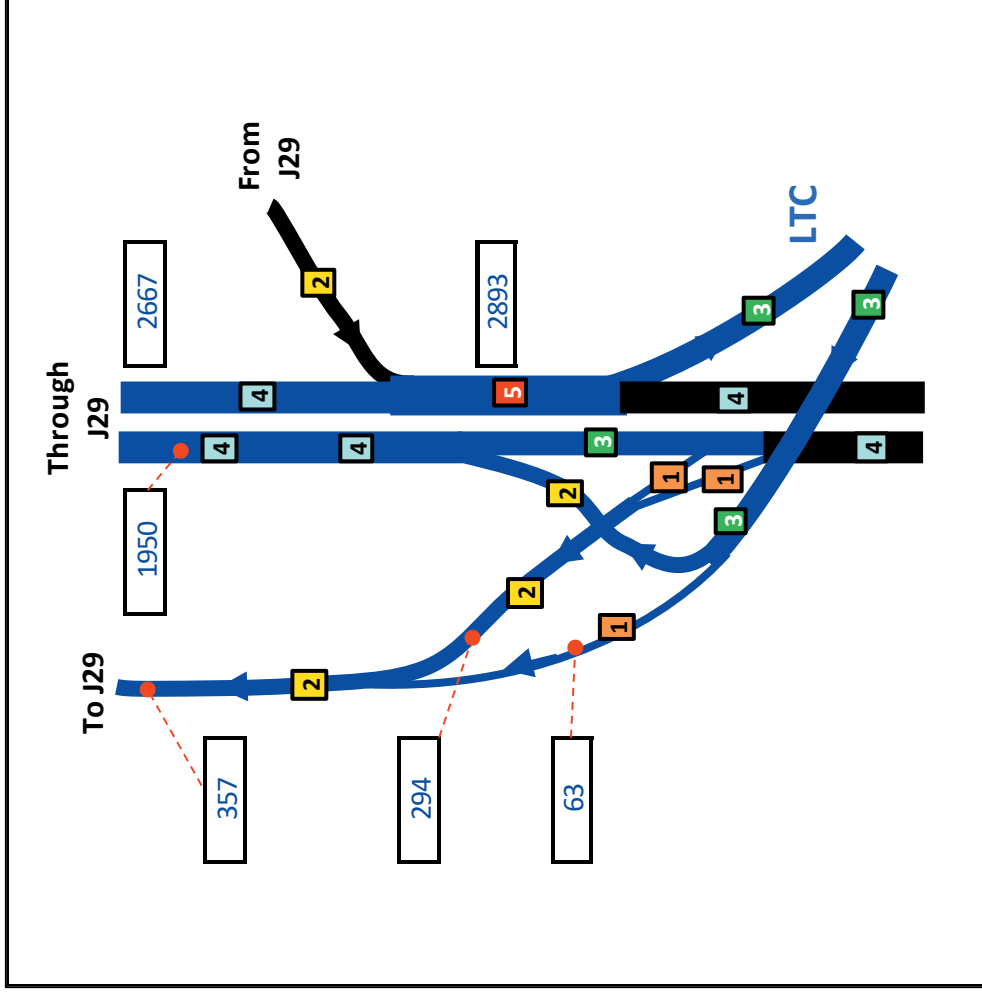


Figure F37 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCU's)

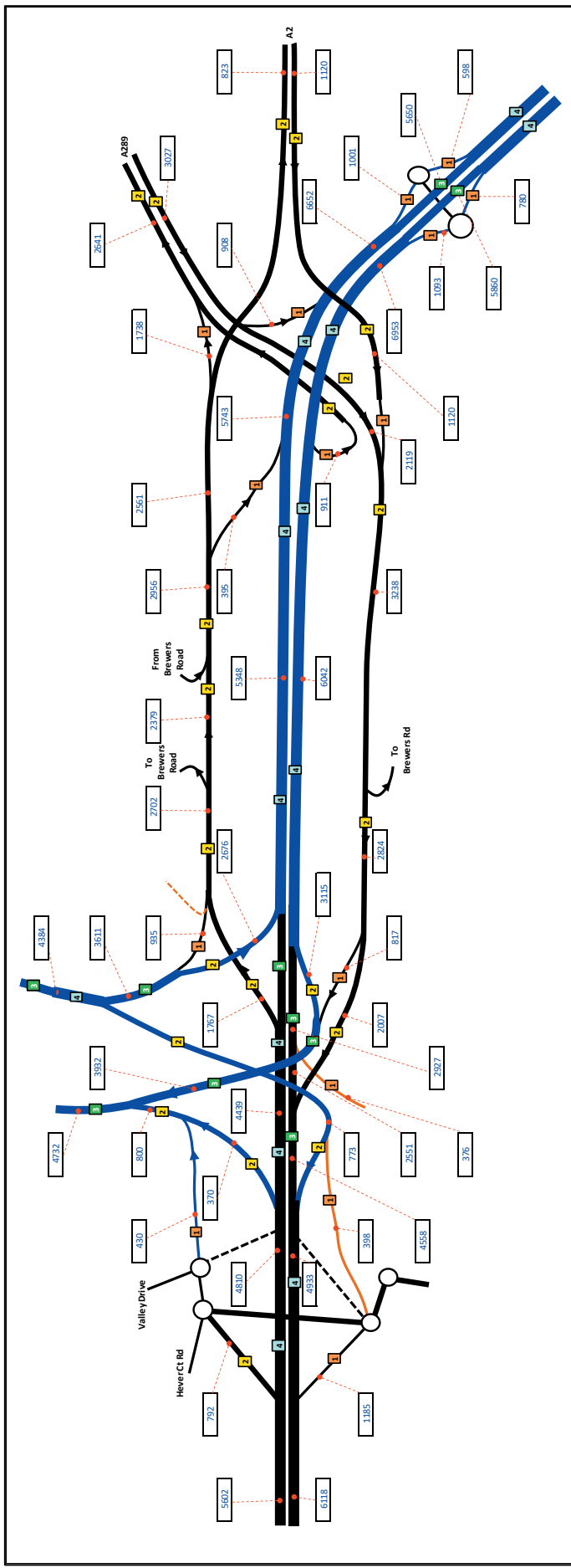


Figure F38 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCU's)

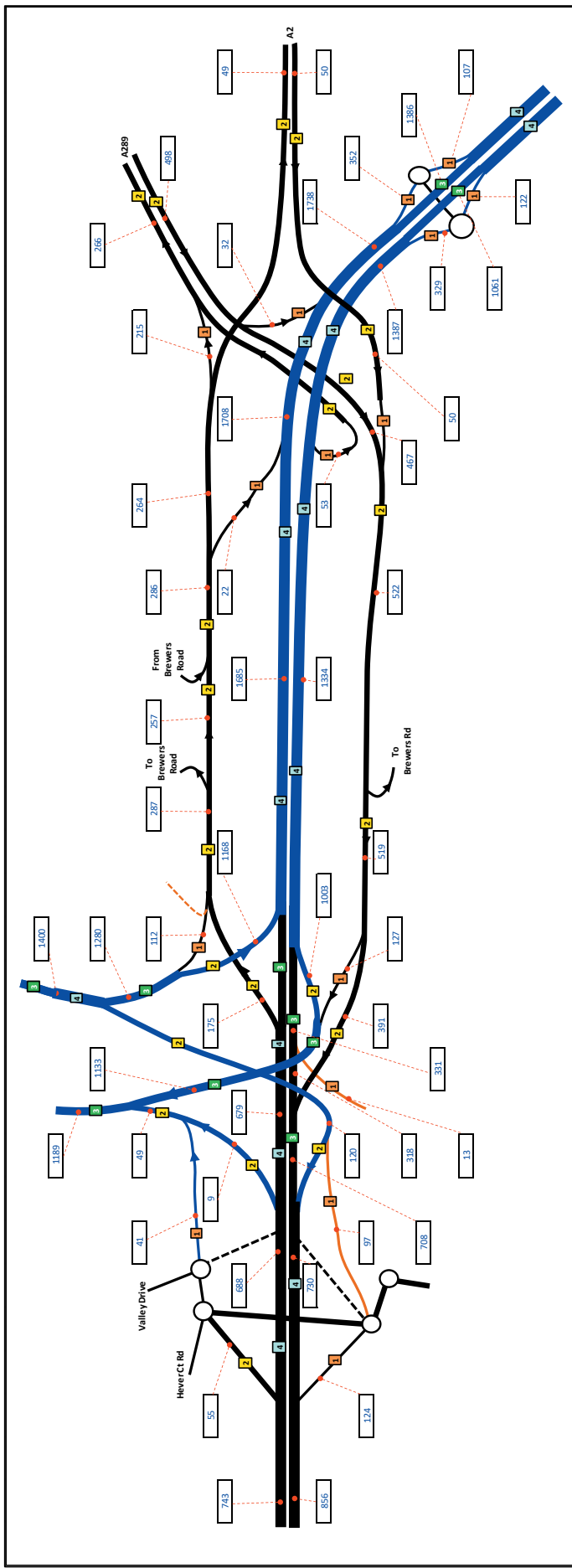


Figure F39 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCU's)

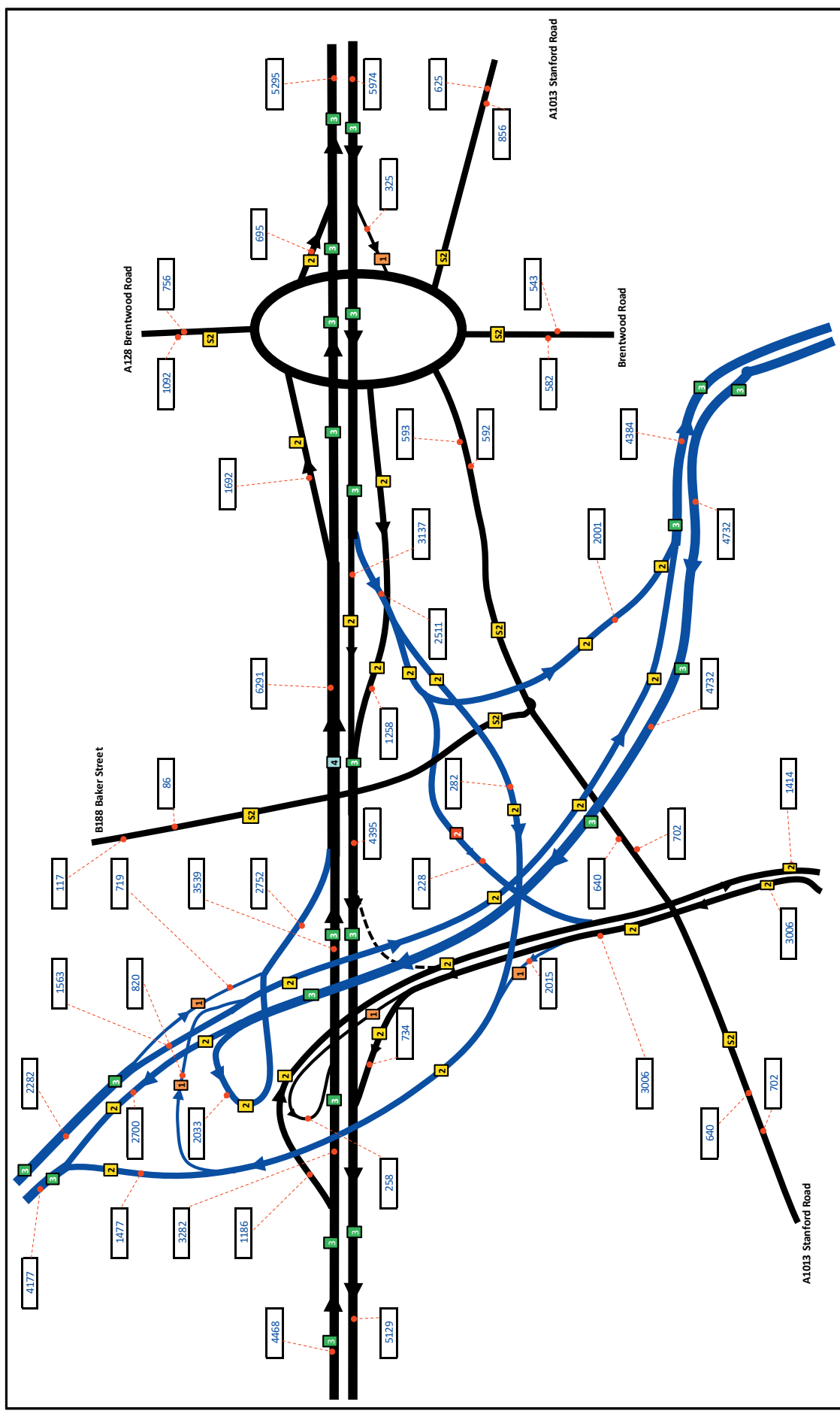


Figure F40 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCU's)

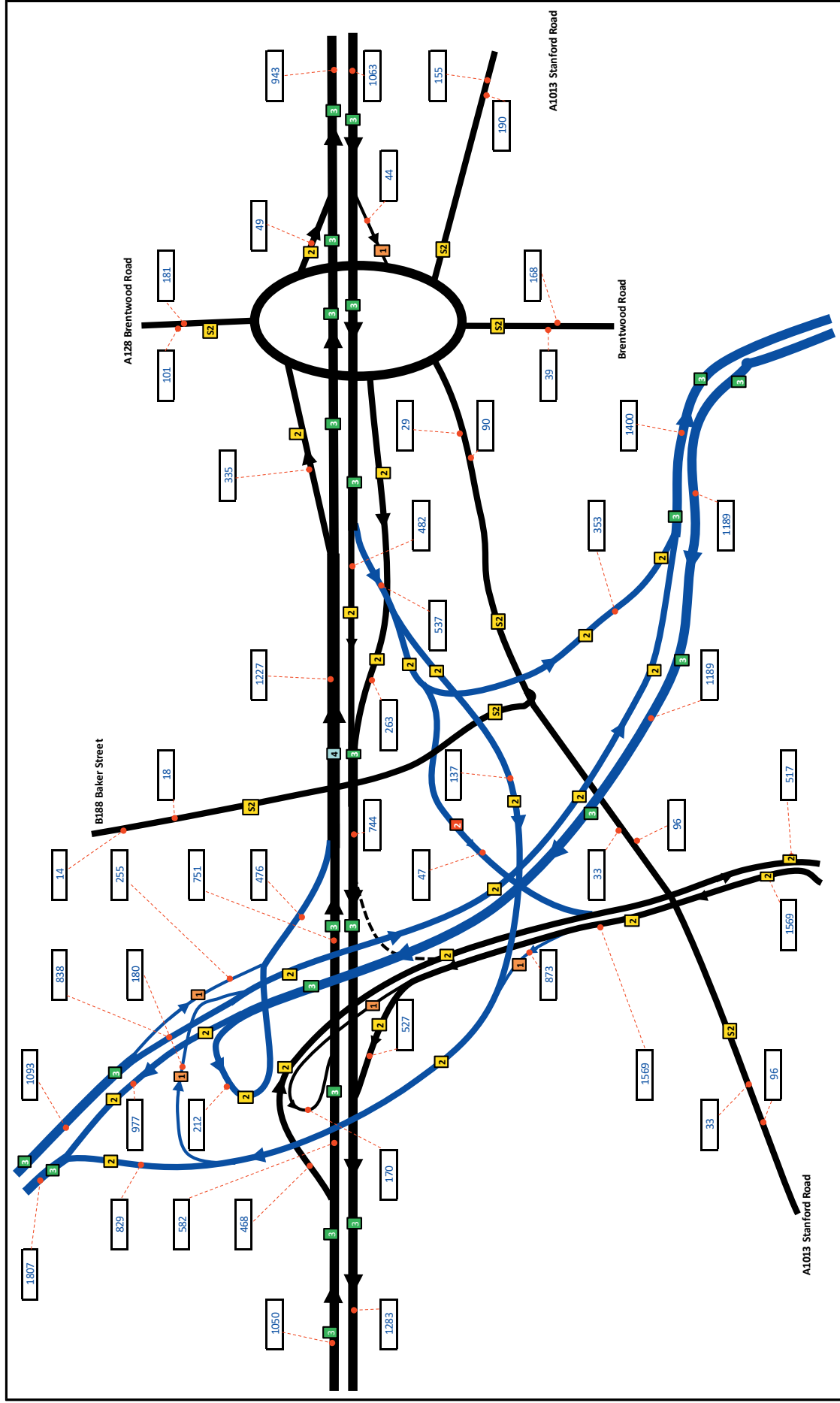


Figure F41 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCU's)

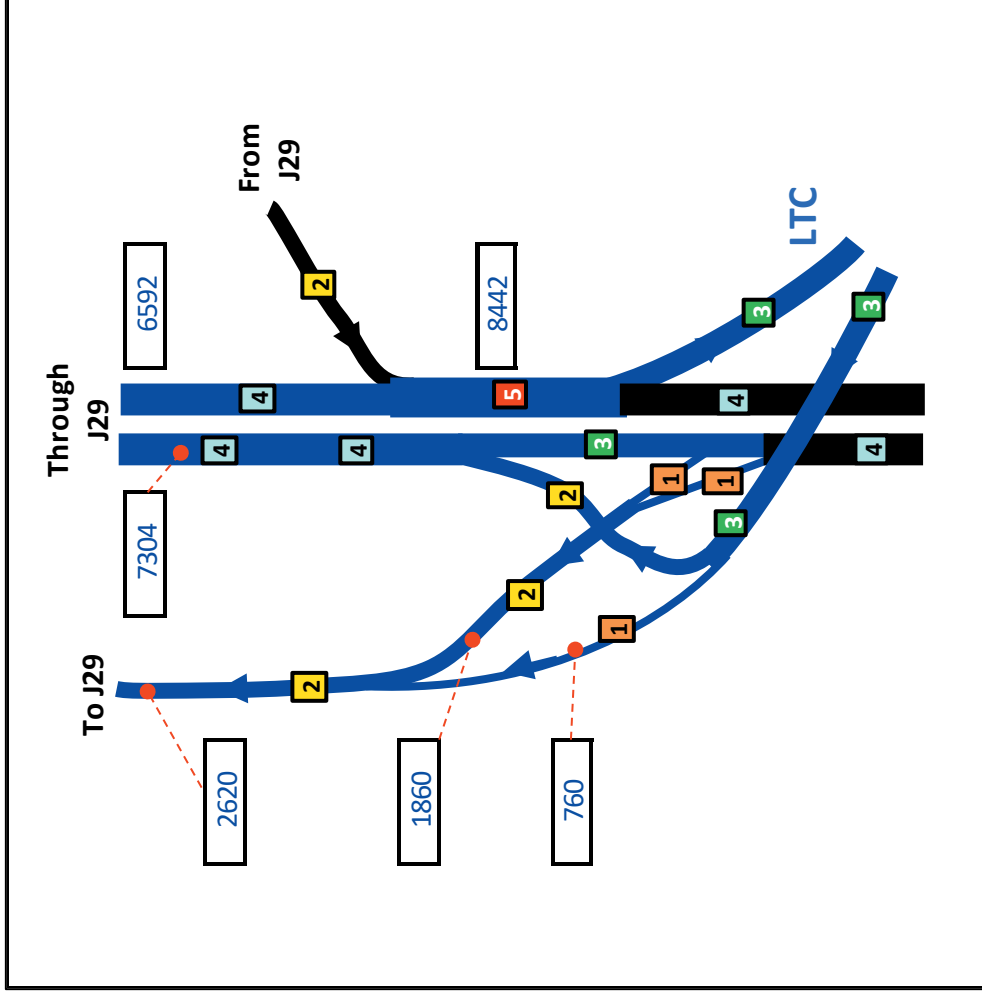


Figure F42 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCU's)

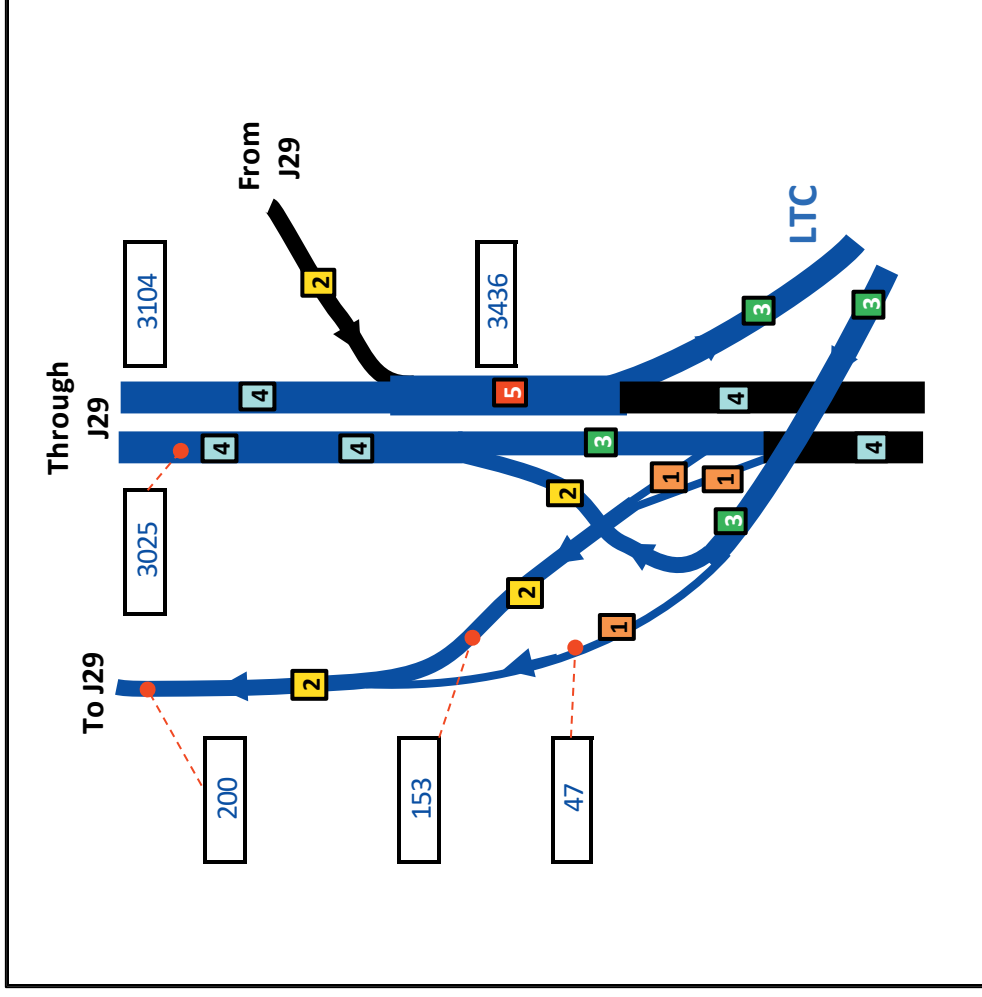


Figure F46 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCU's)

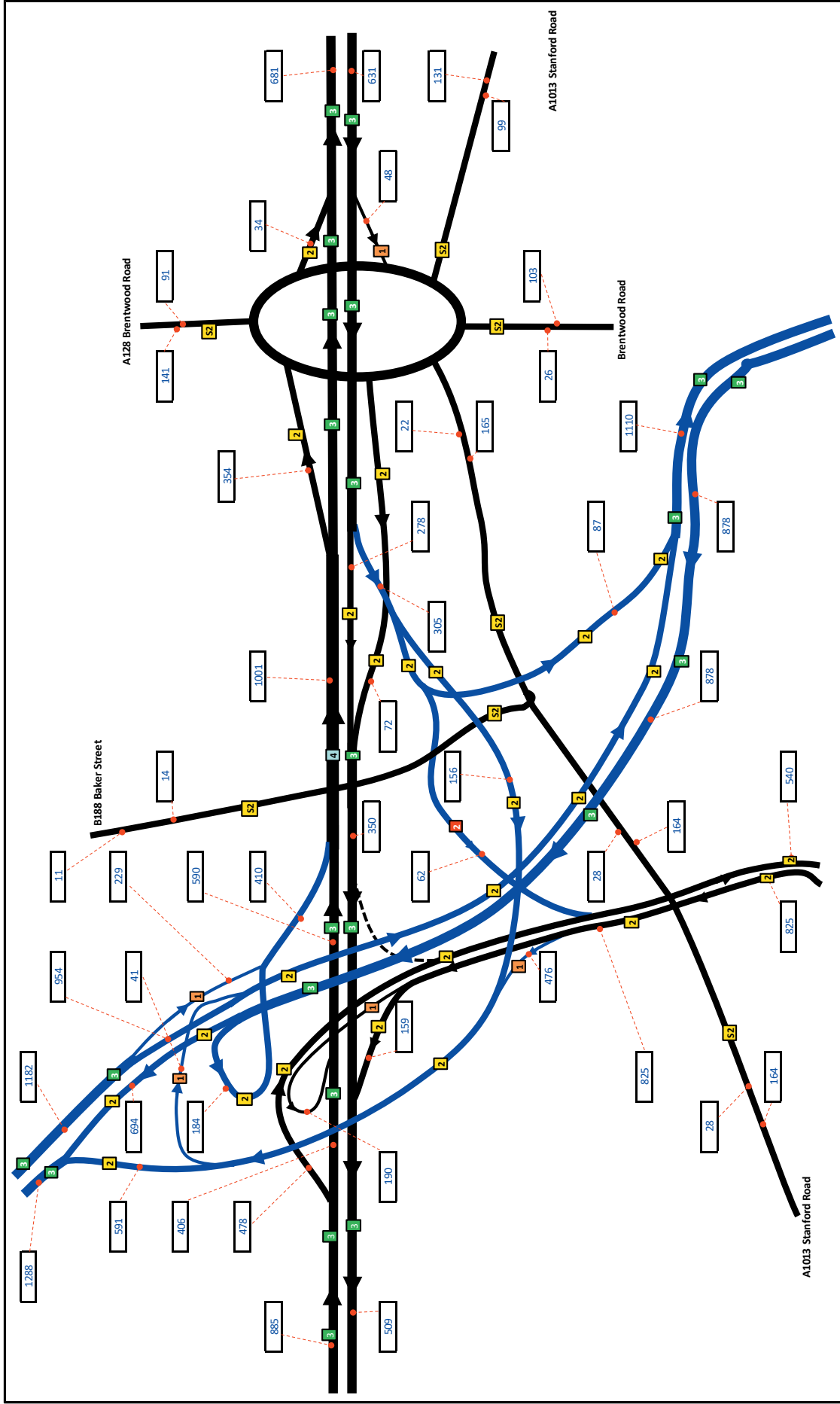


Figure F47 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCU's)

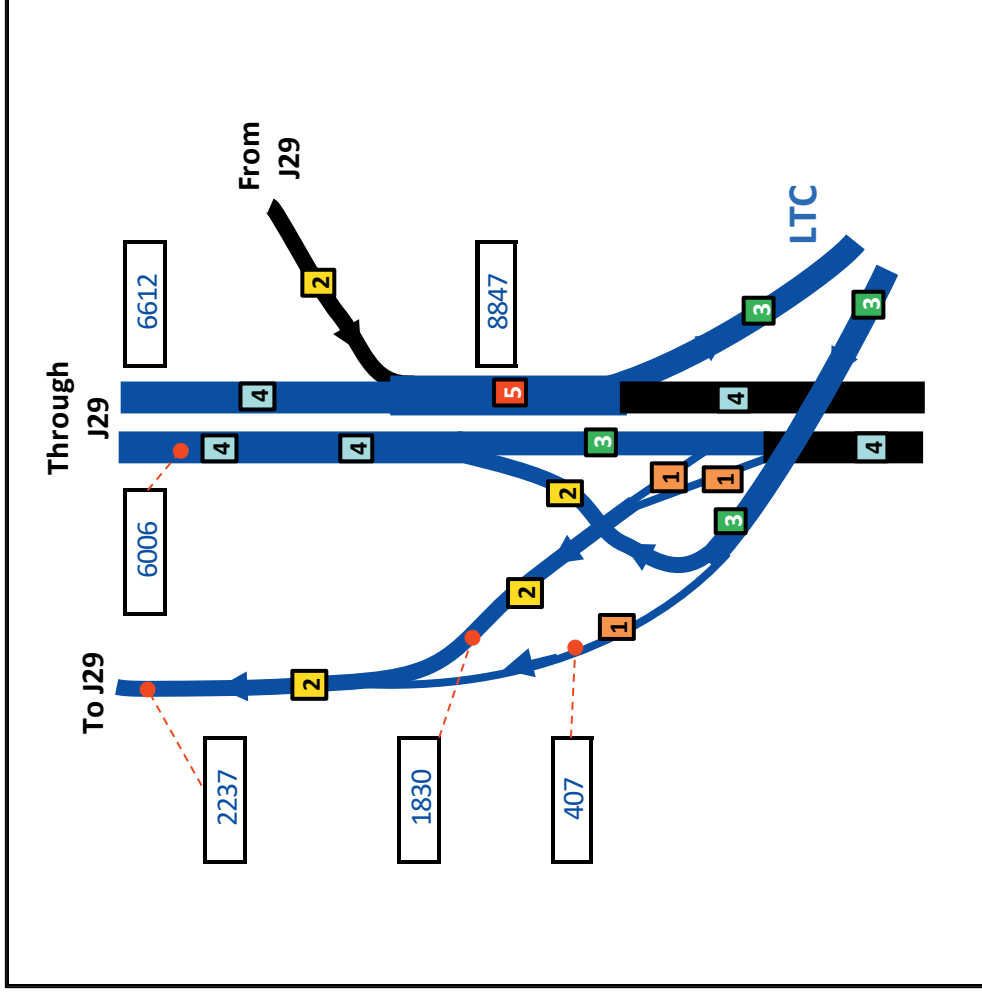


Figure F48 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCU's)

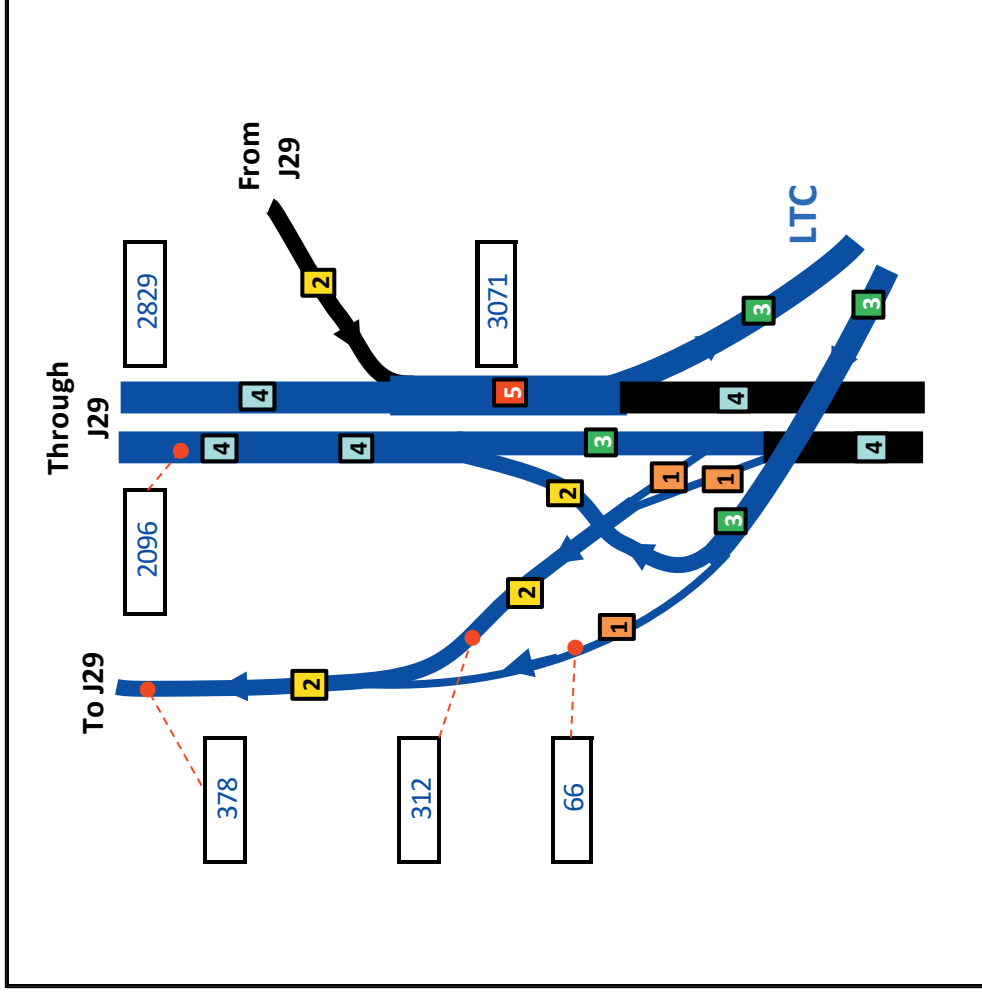


Figure F49 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak All Vehicles (PCU's)

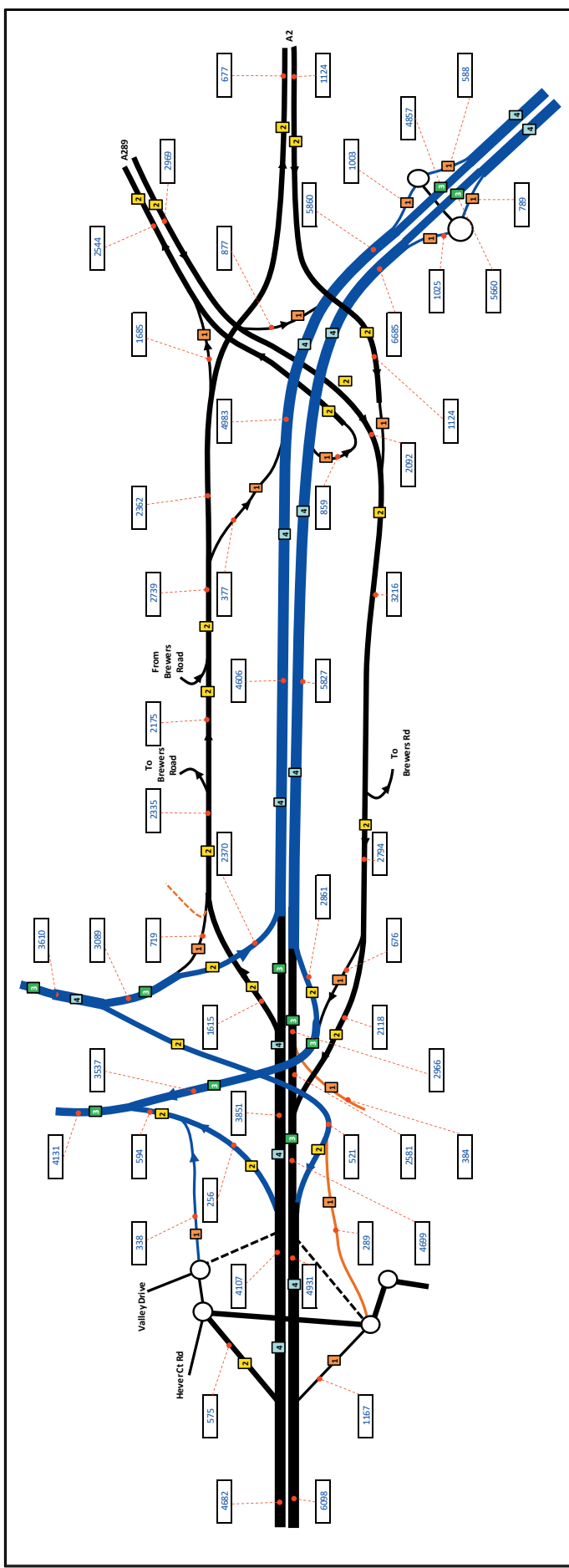


Figure F53 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak All Vehicles (PCU's)

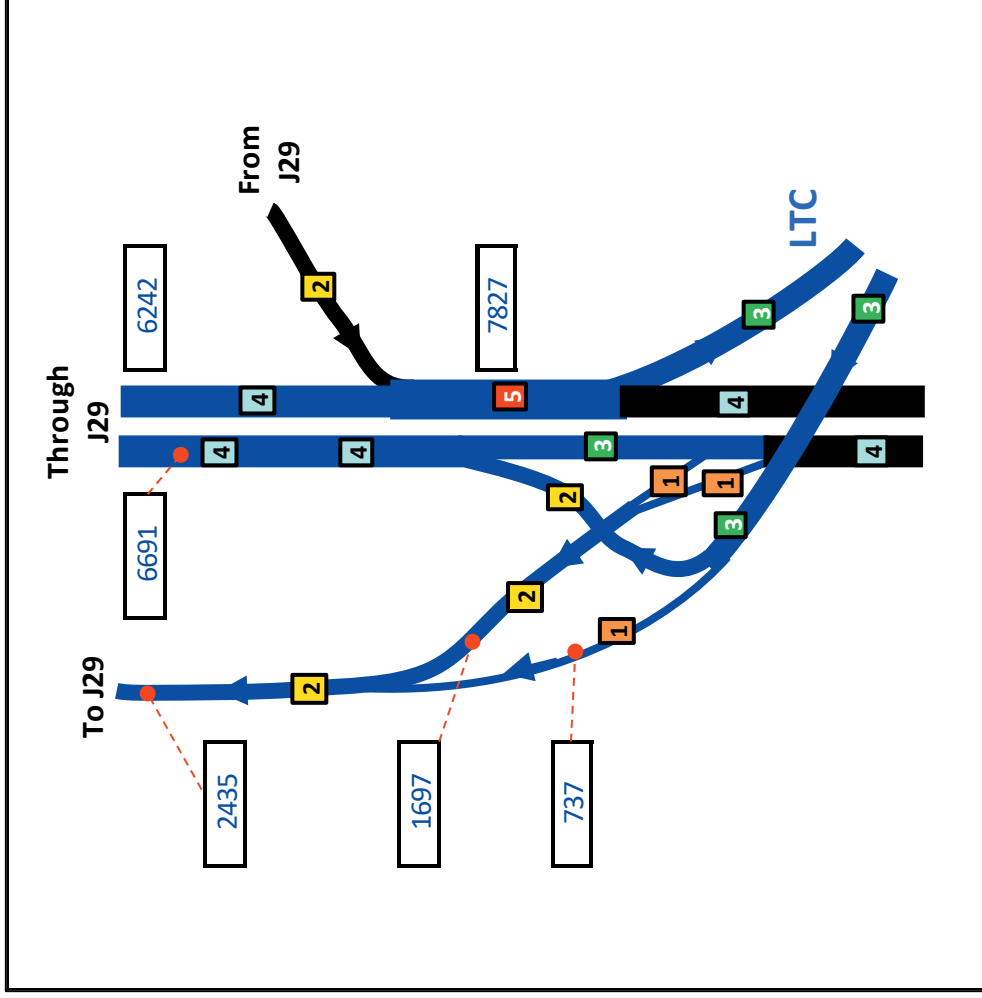


Figure F54 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth AM Peak HGV (PCU's)

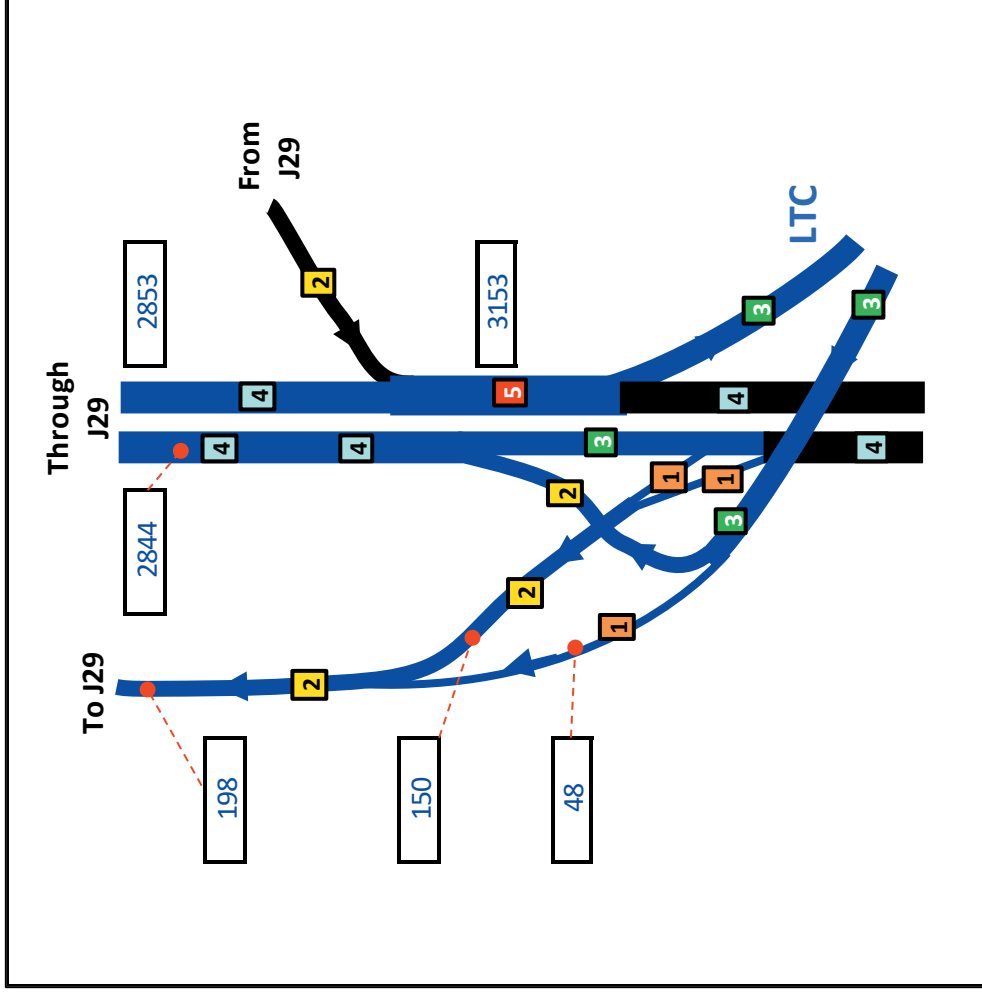


Figure F55 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak All Vehicles (PCU's)

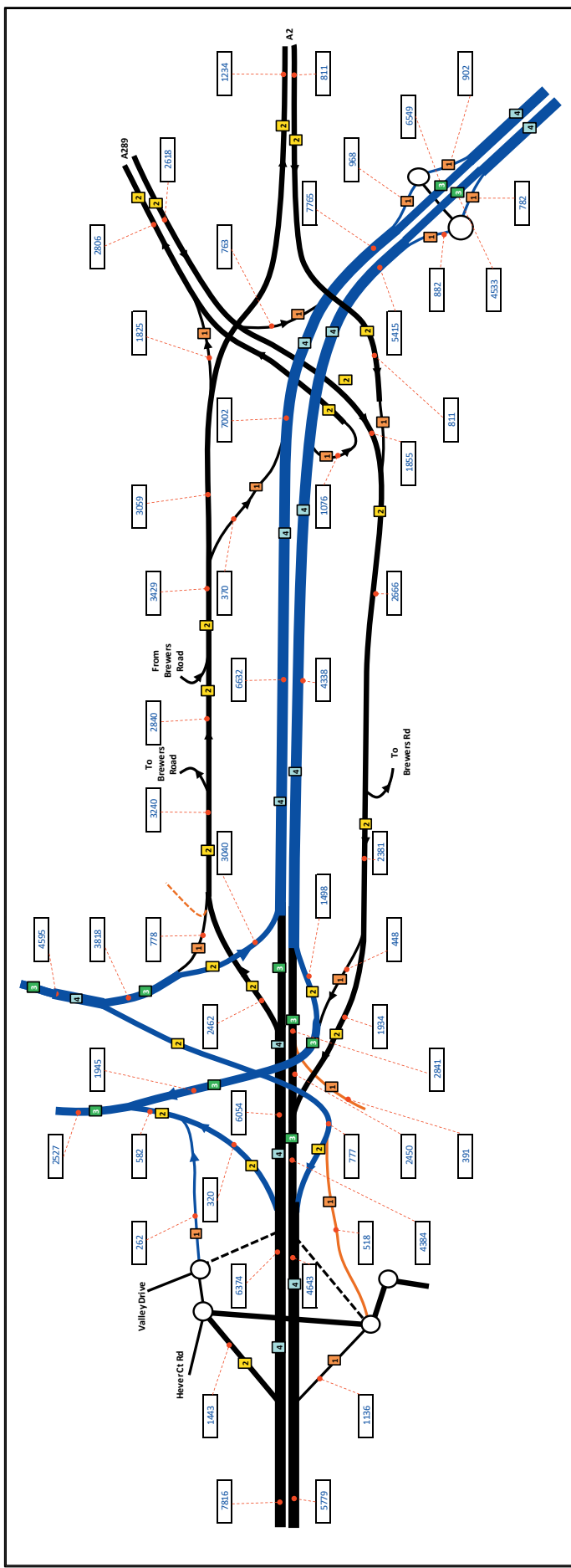


Figure F58 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak HGV (PCU's)

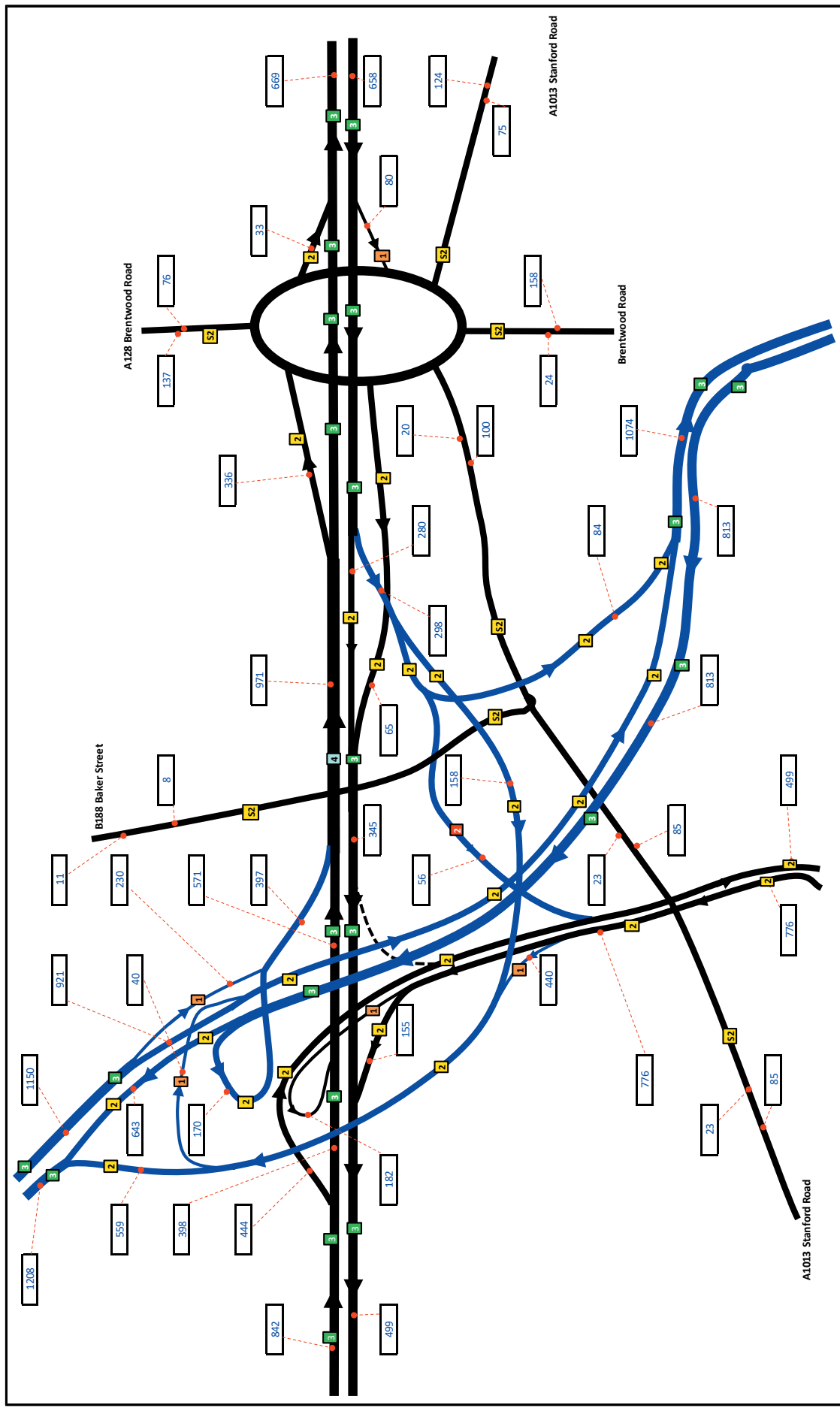


Figure F59 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak All Vehicles (PCU's)

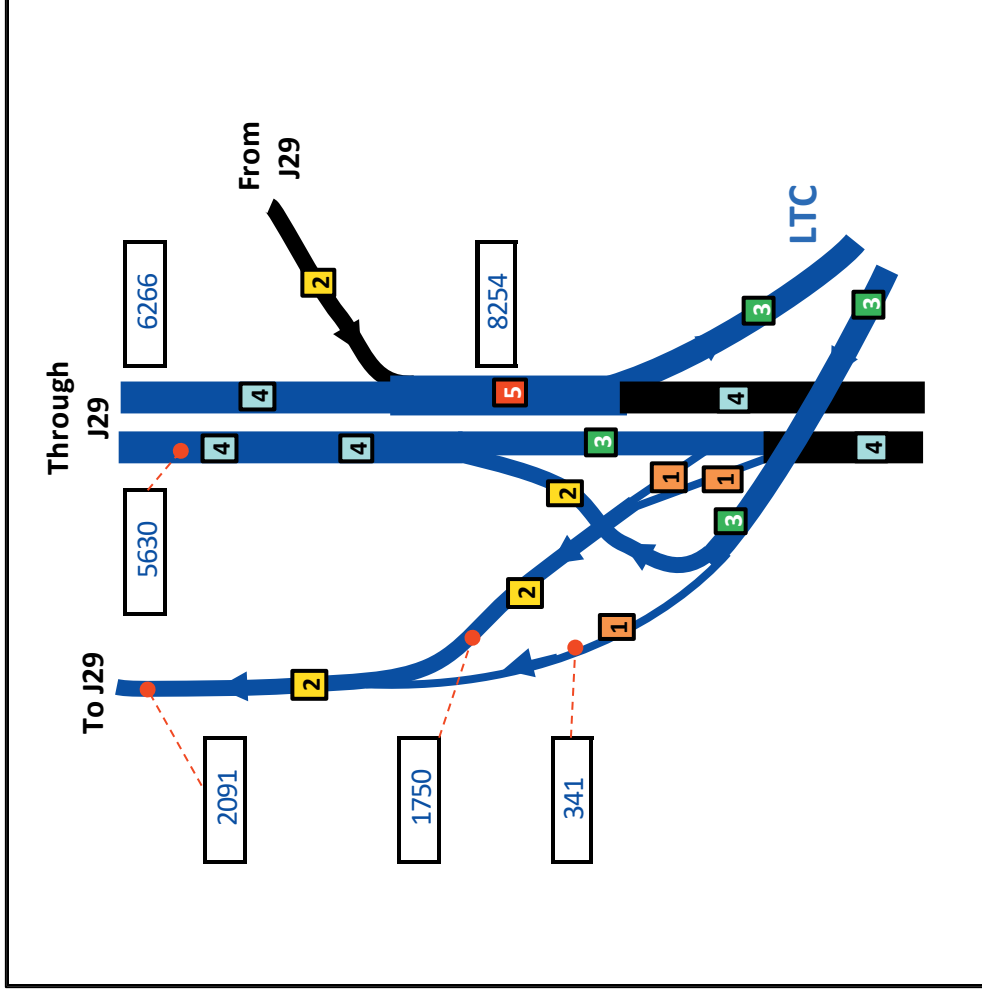


Figure F60 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2026 High Growth PM Peak HGV (PCU's)

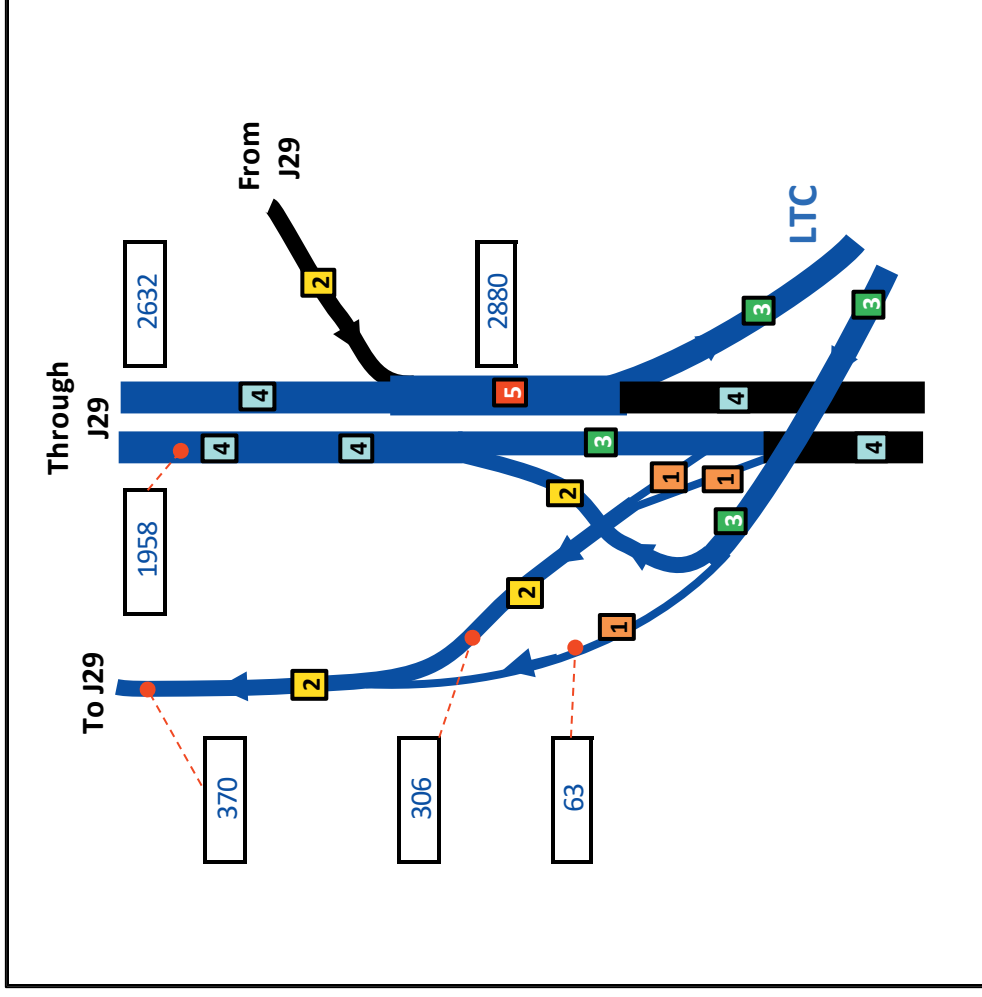


Figure F61 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak All Vehicles (PCU's)

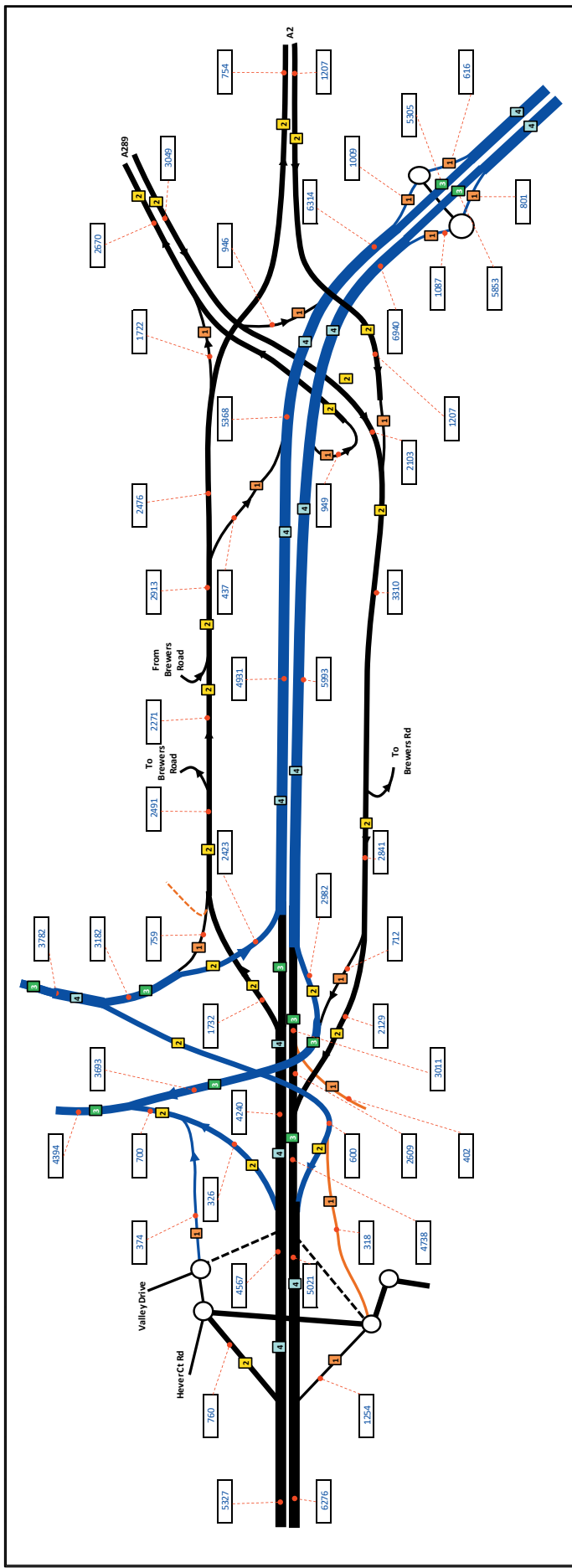


Figure F62 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak HGV (PCU's)

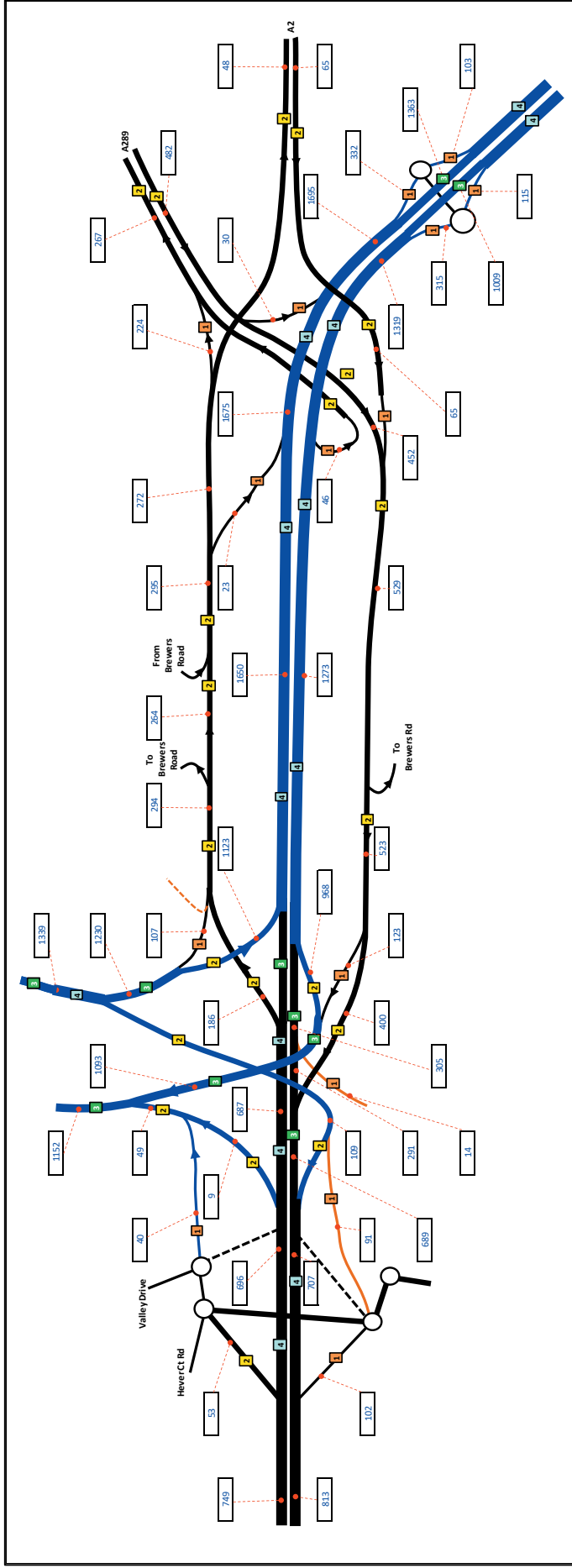


Figure F63 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak All Vehicles (PCU's)

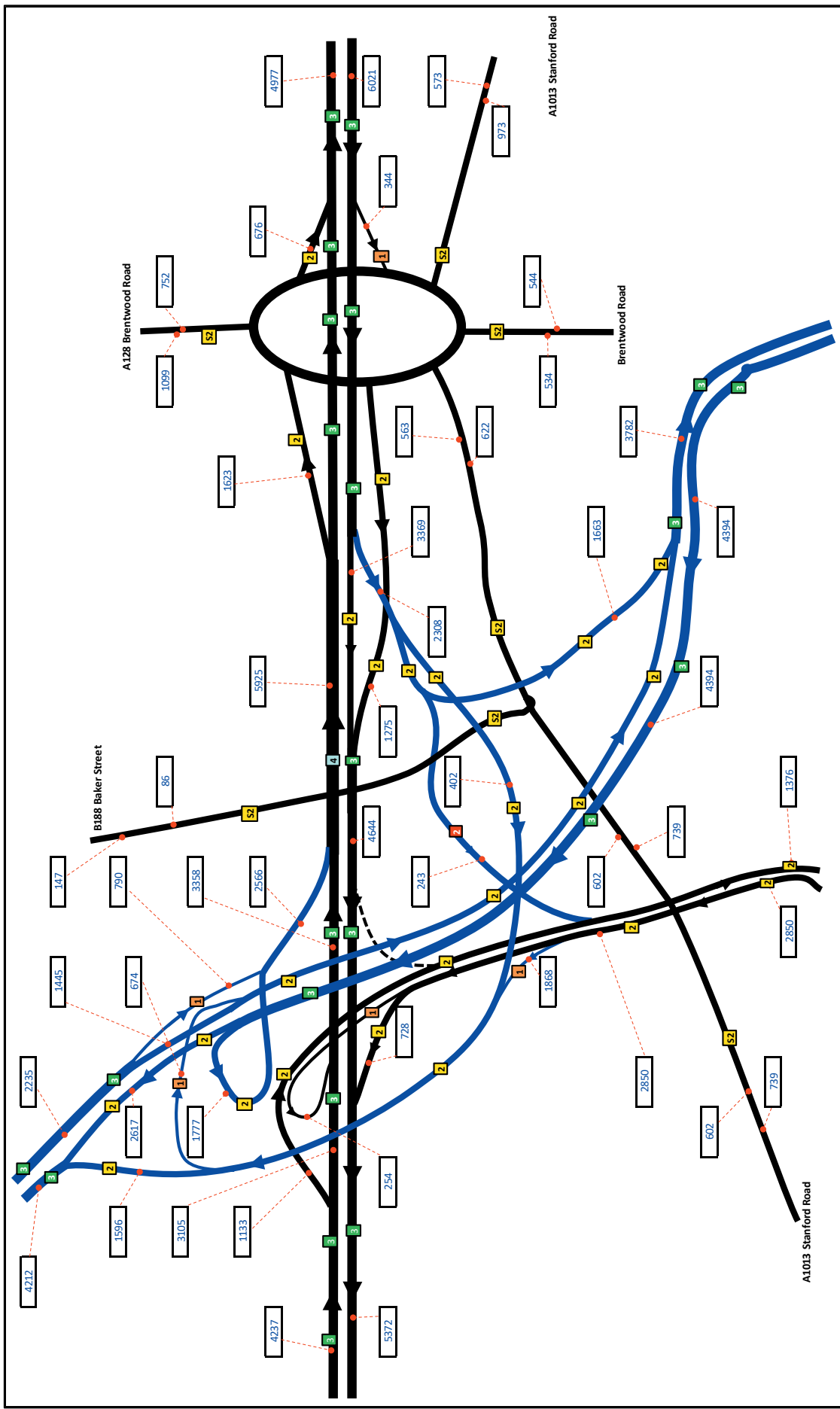


Figure F65 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak All Vehicles (PCU's)

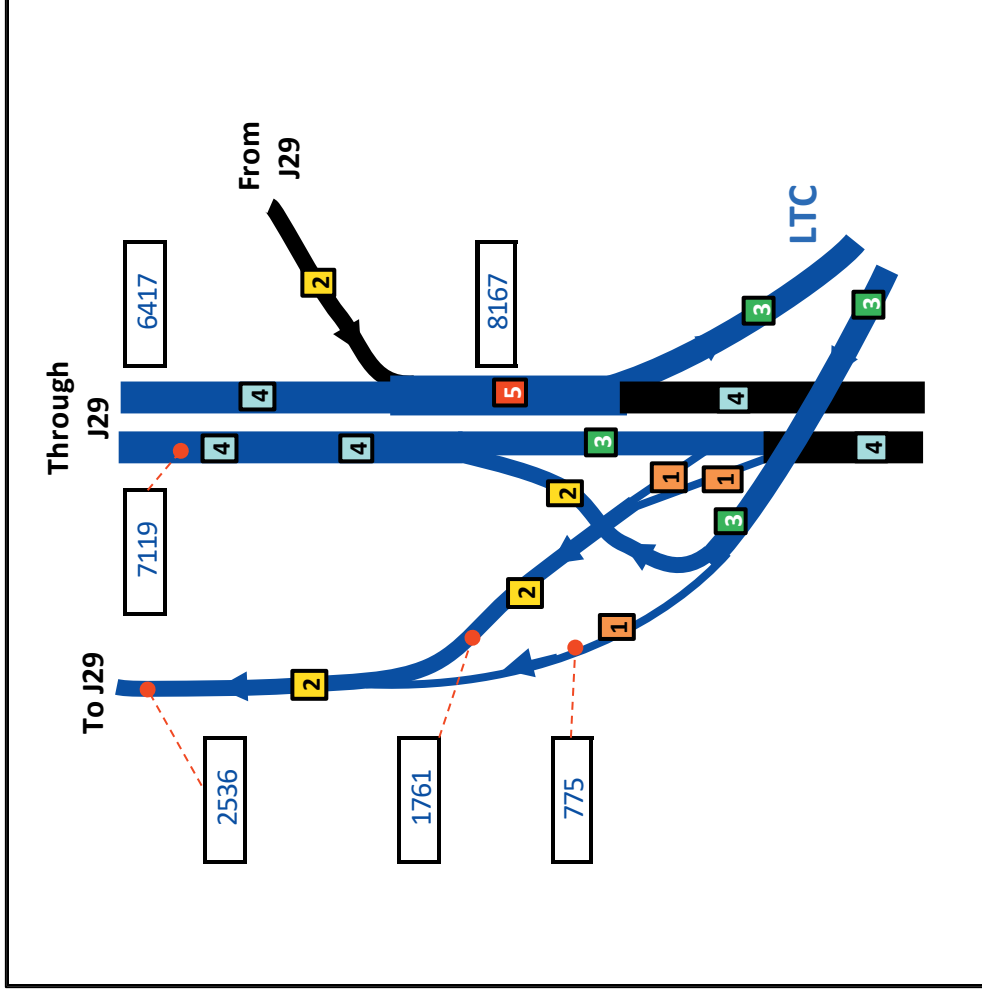


Figure F66 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 High Growth AM Peak HGV (PCU's)

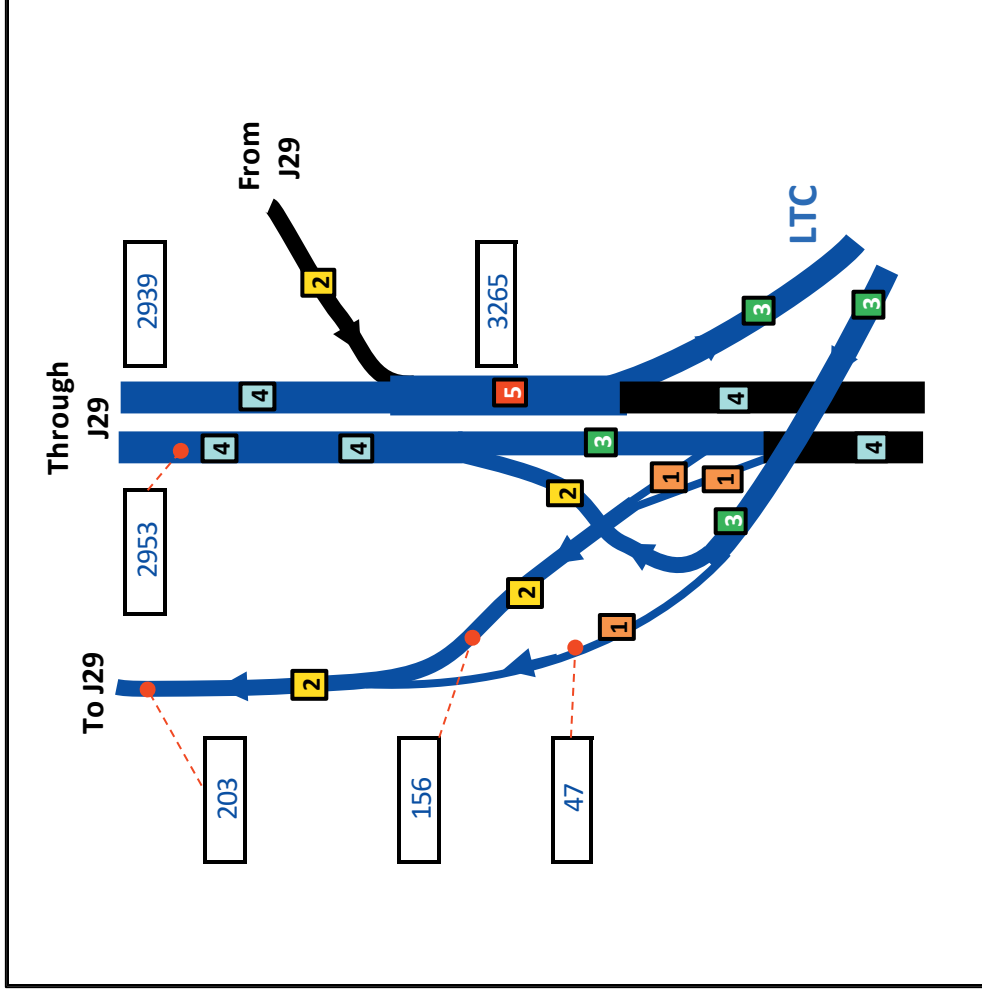


Figure F69 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak All Vehicles (PCU's)

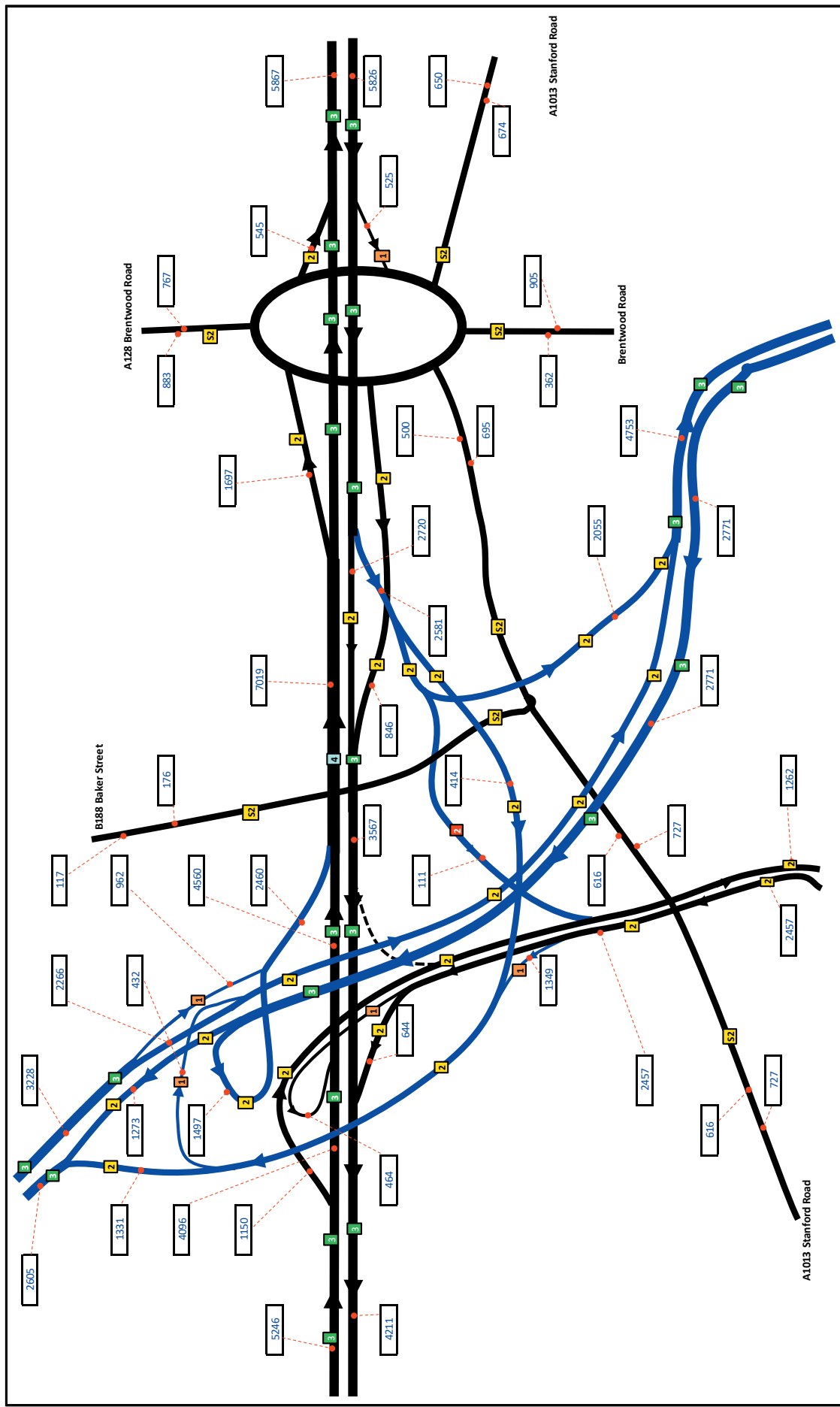


Figure F71 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2031 High Growth PM Peak All Vehicles (PCU's)

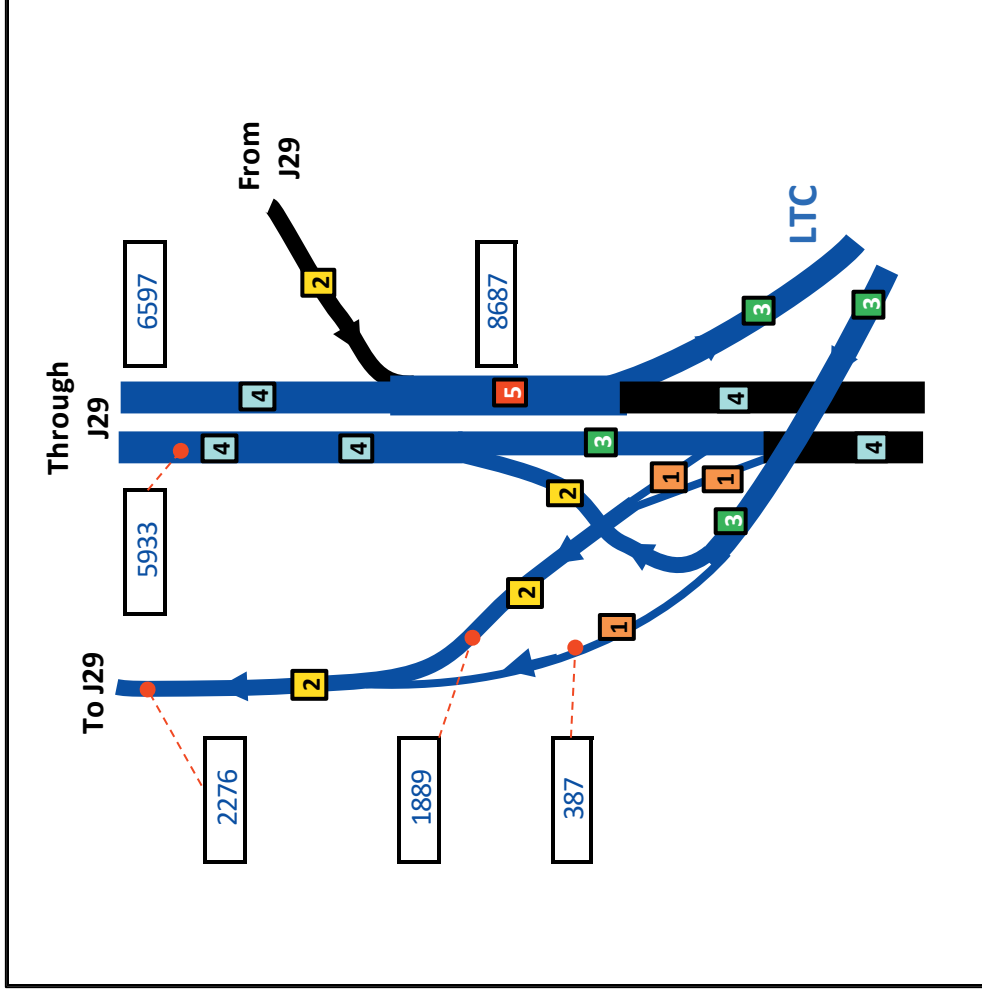


Figure F73 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak All Vehicles (PCU's)

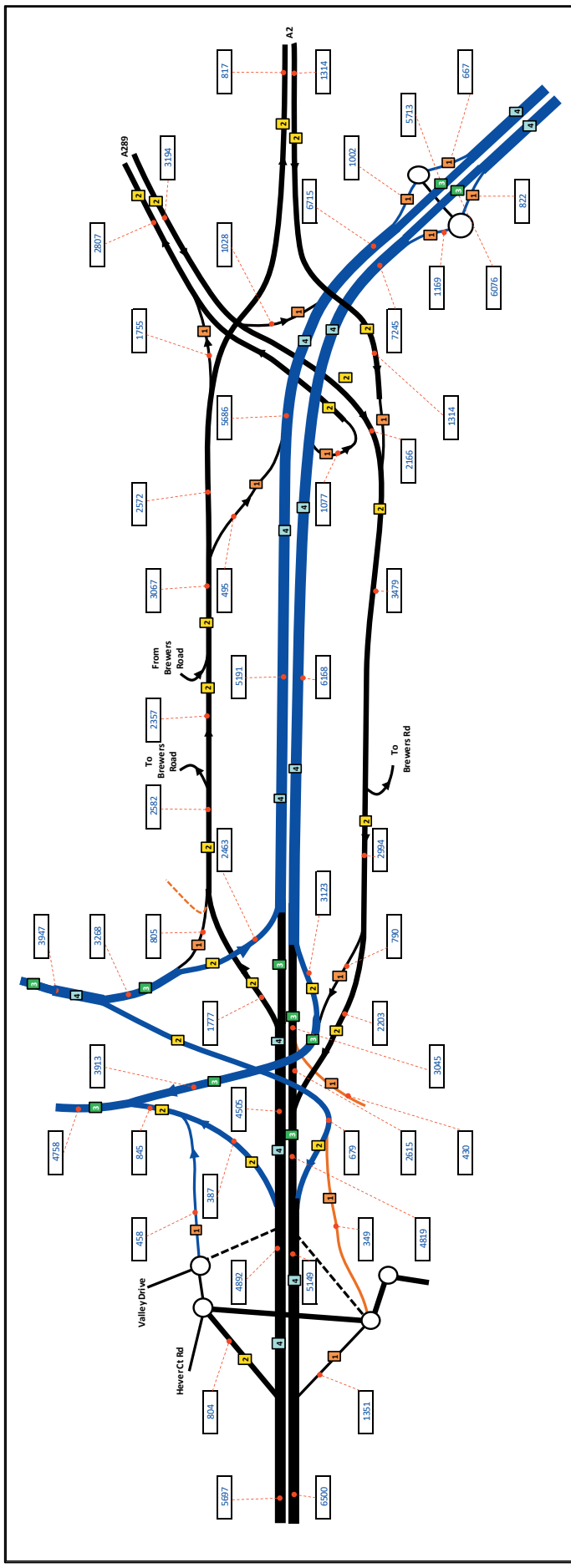


Figure F74 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak HGV (PCU's)

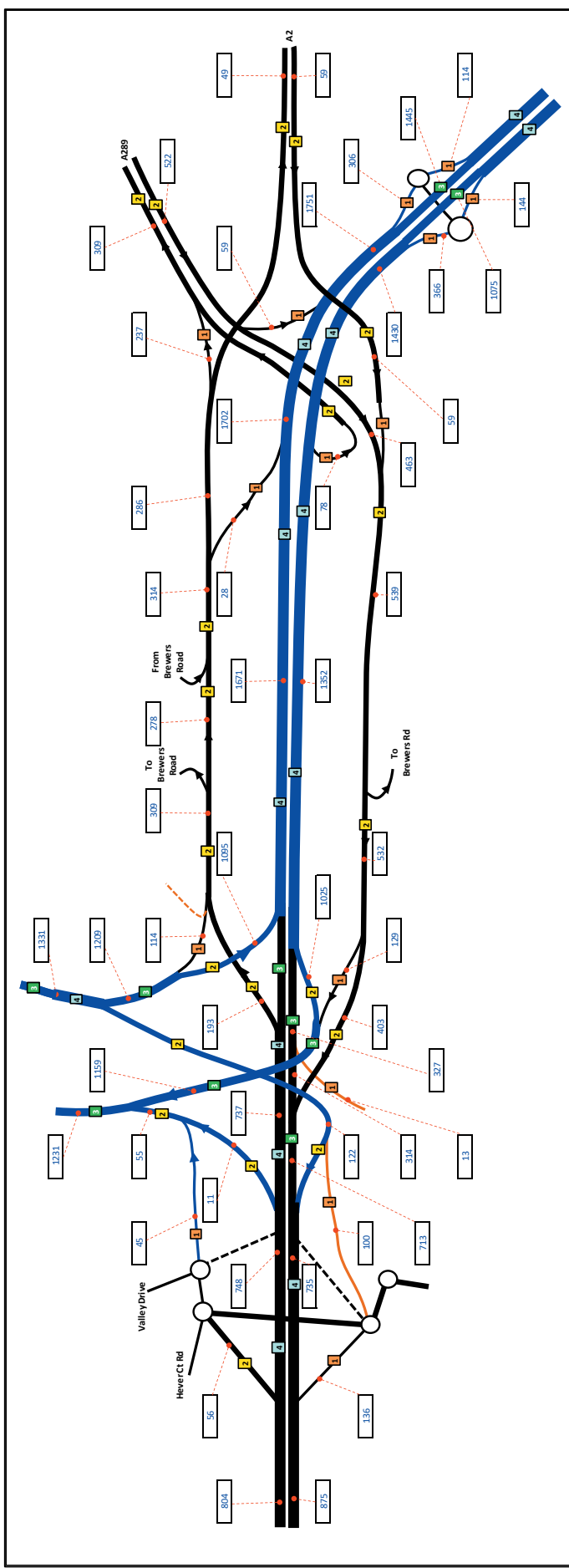


Figure F75 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak All Vehicles (PCU's)

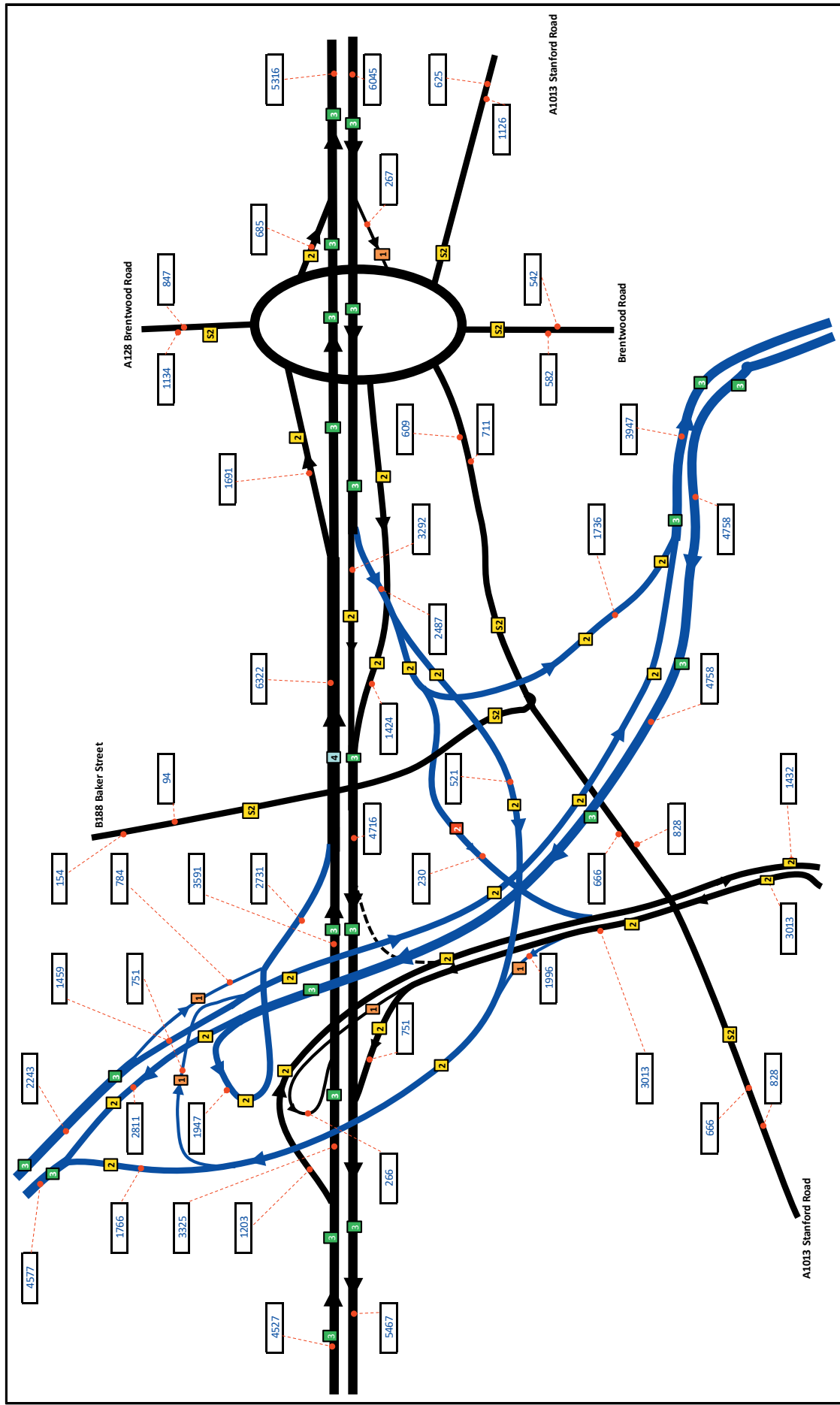


Figure F76 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2041 High Growth AM Peak HGV (PCU's)

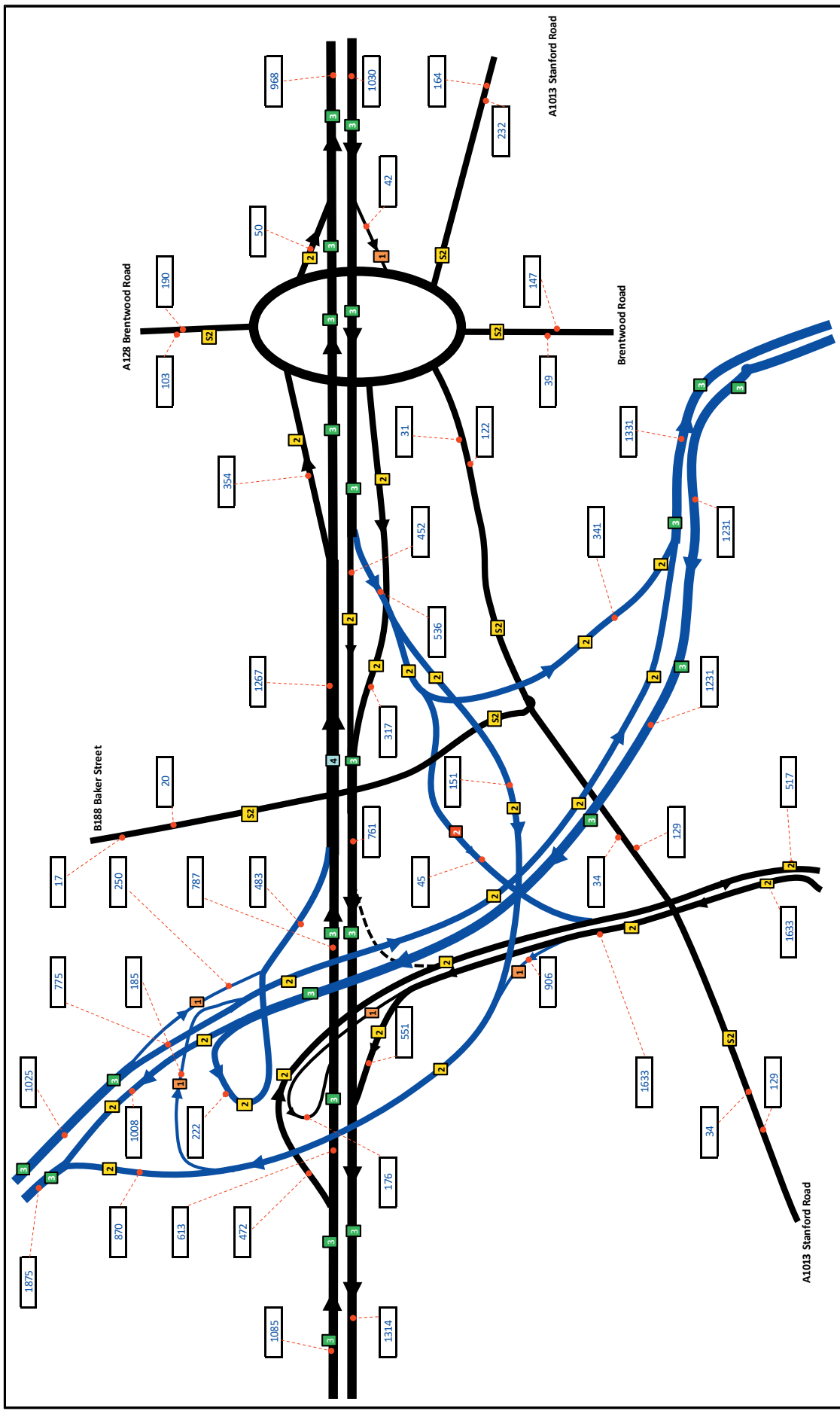


Figure F79 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak All Vehicles (PCU's)

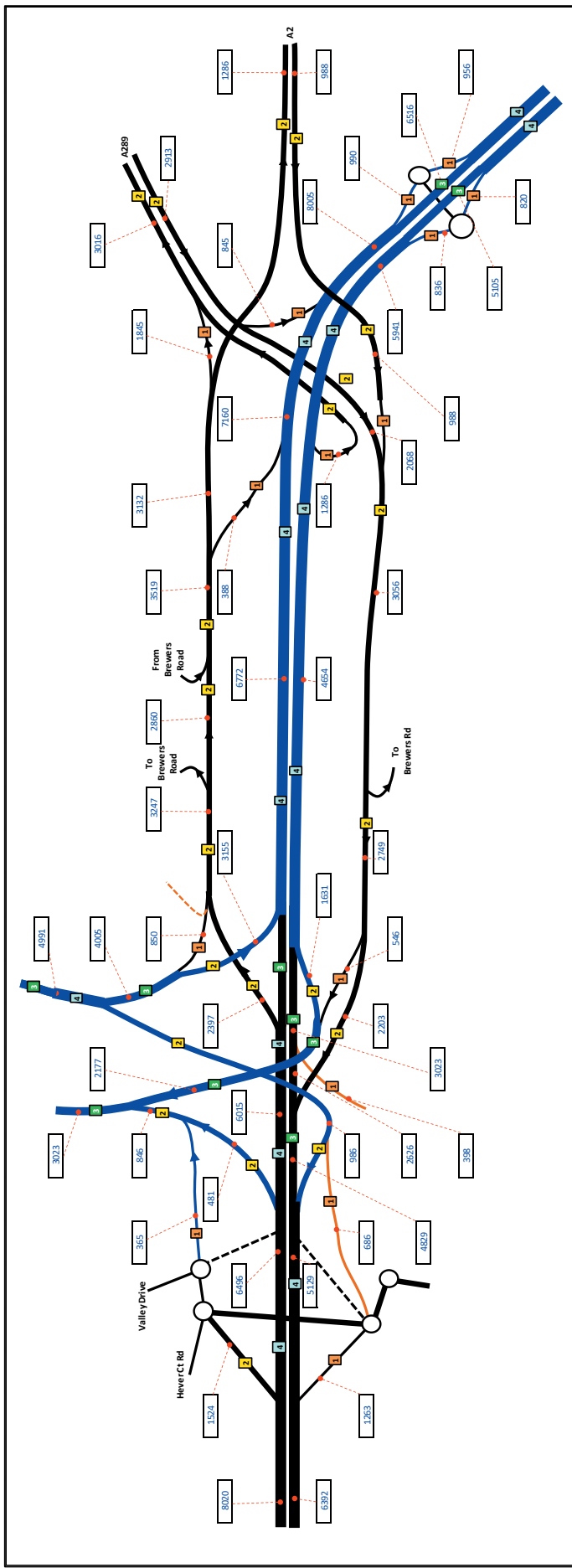


Figure F80 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak HGV (PCU's)

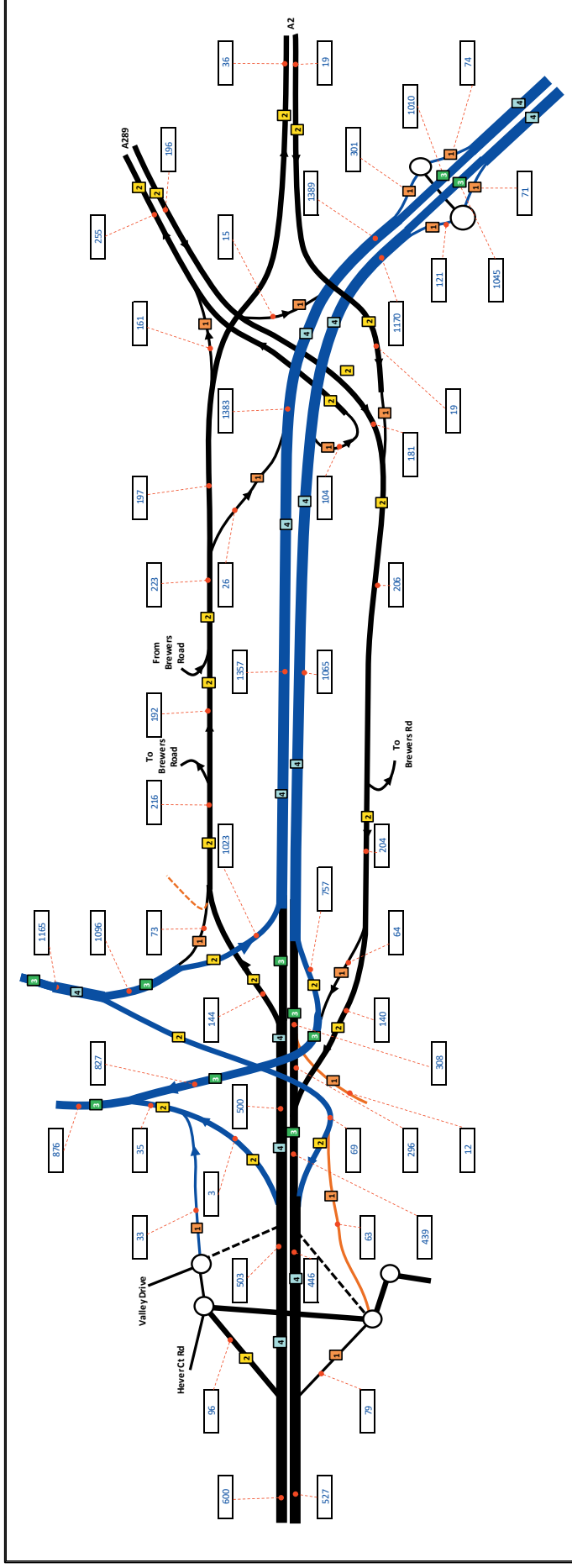


Figure F83 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak All Vehicles (PCU's)

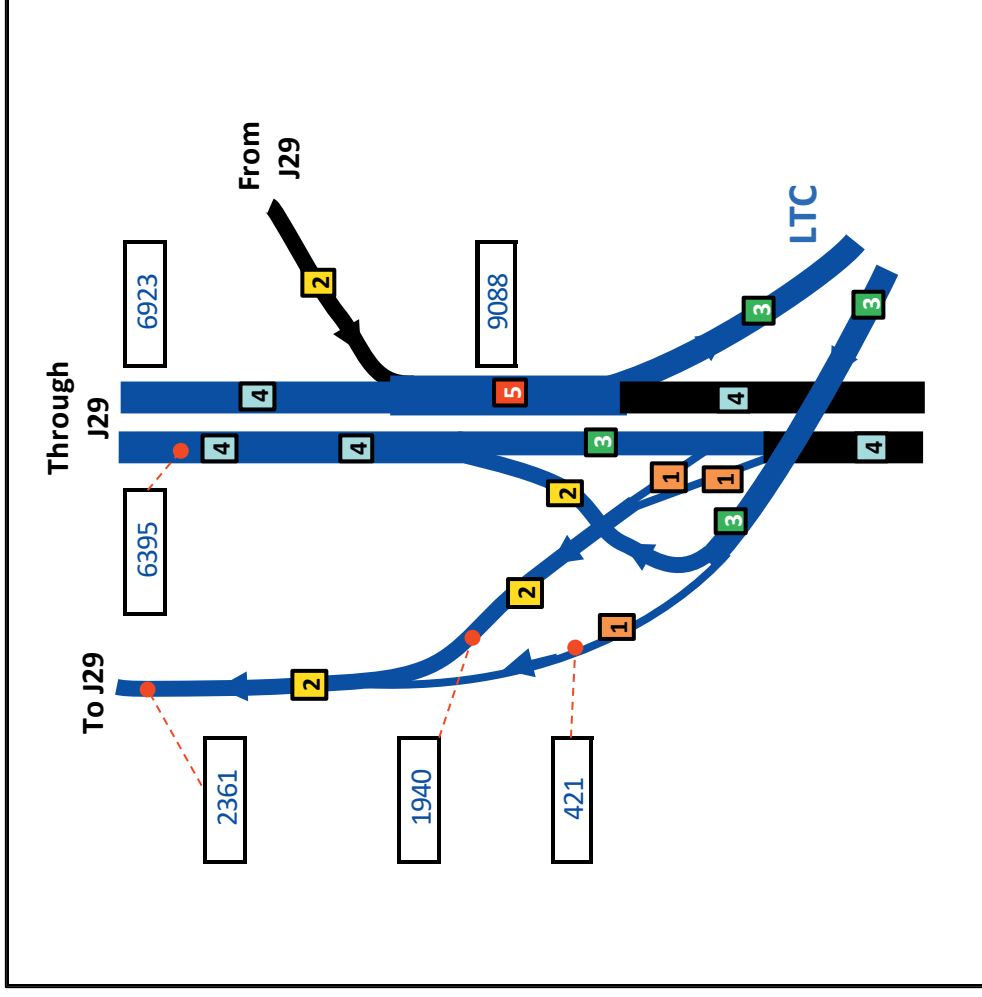


Figure F84 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2041 High Growth PM Peak HGV (PCU's)

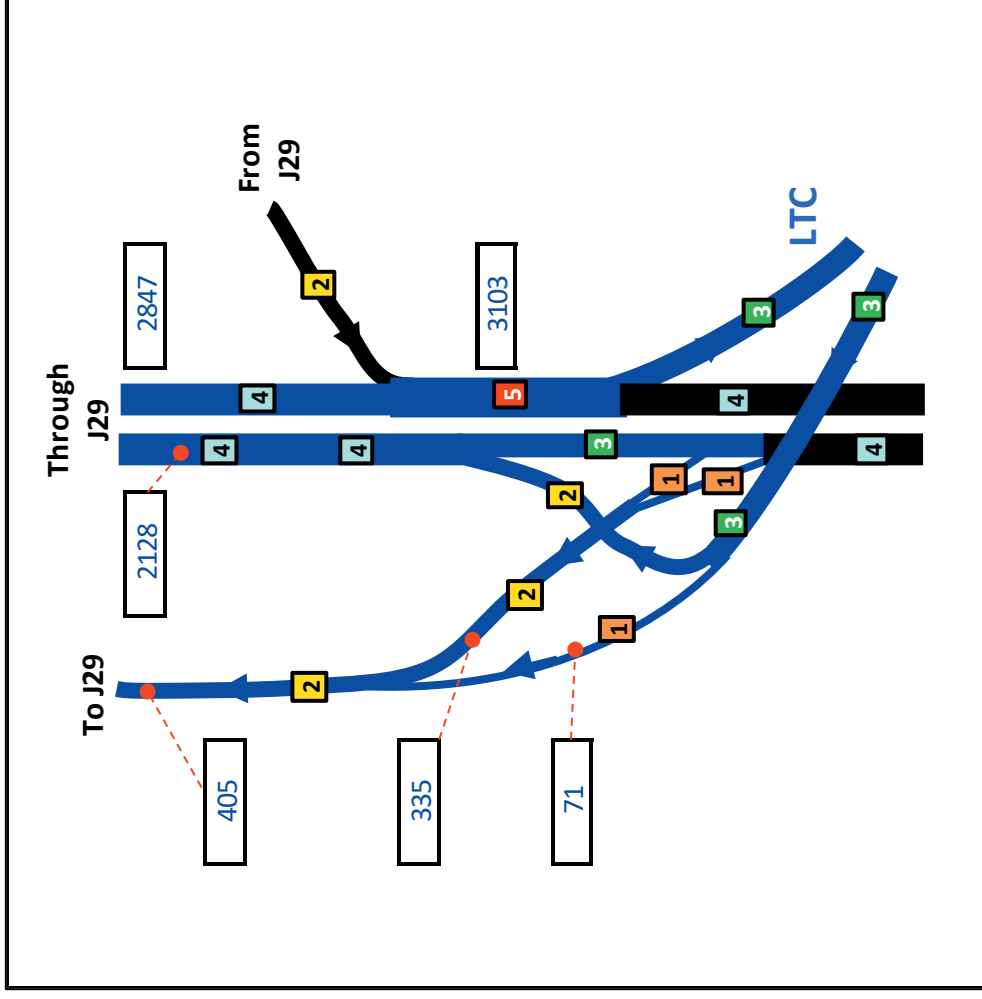


Figure F85 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCU's)

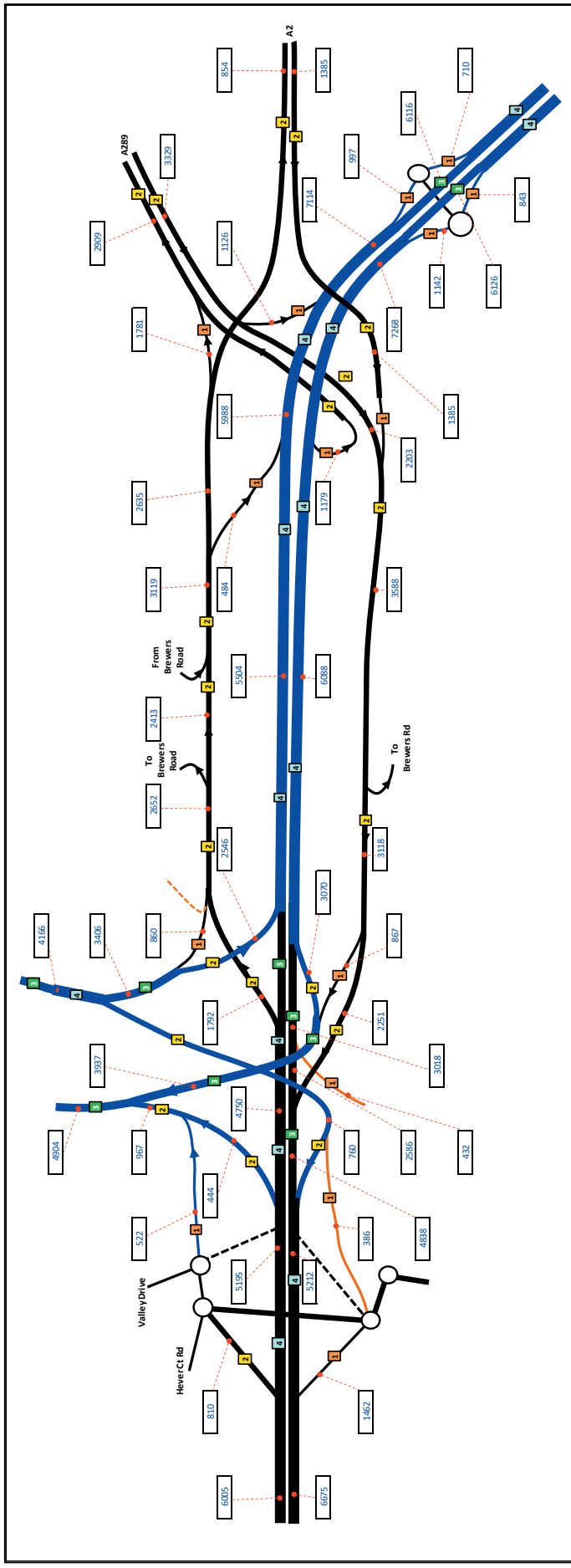


Figure F86 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCU's)

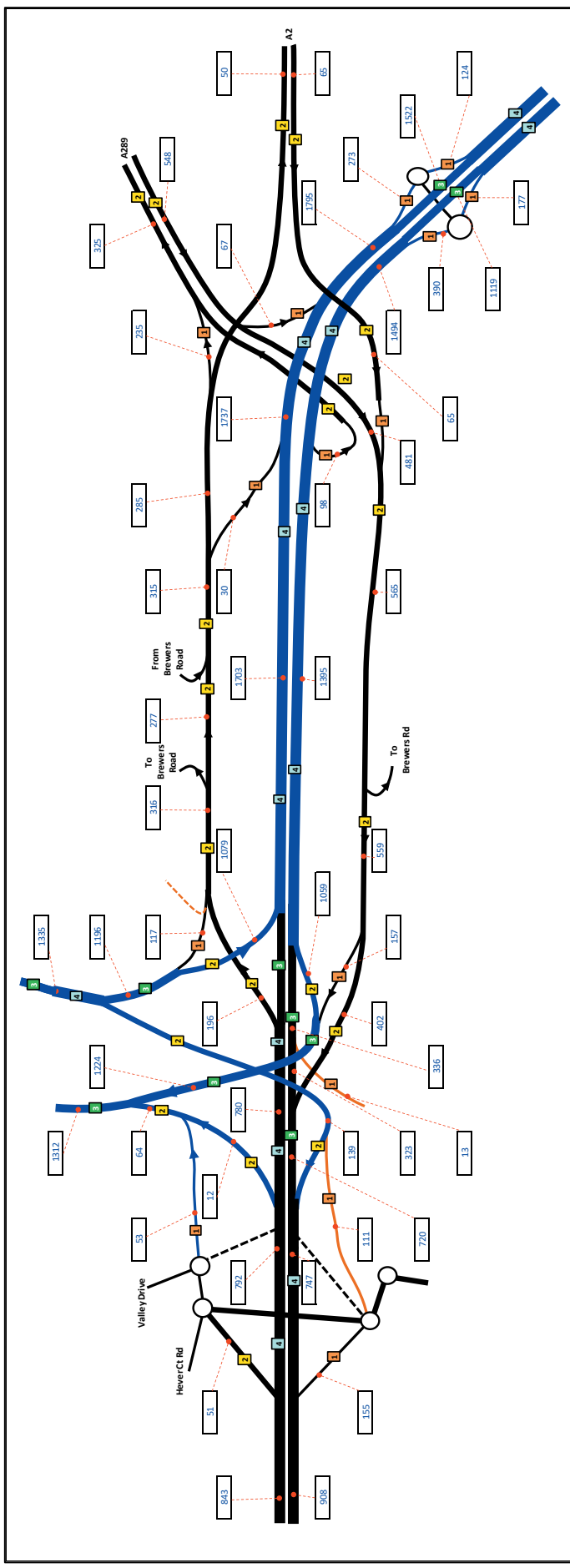


Figure F88 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCU's)

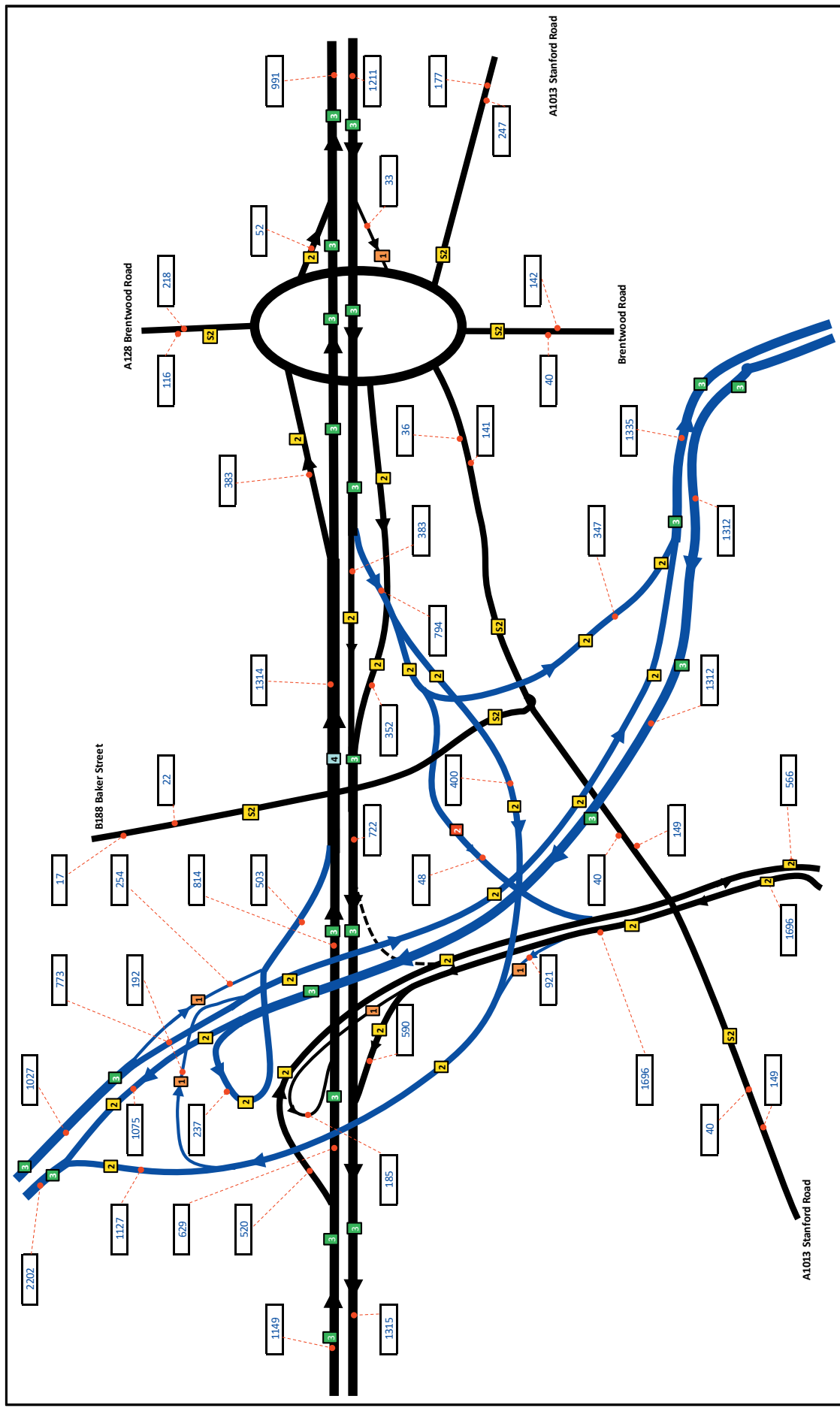


Figure F90 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCU's)

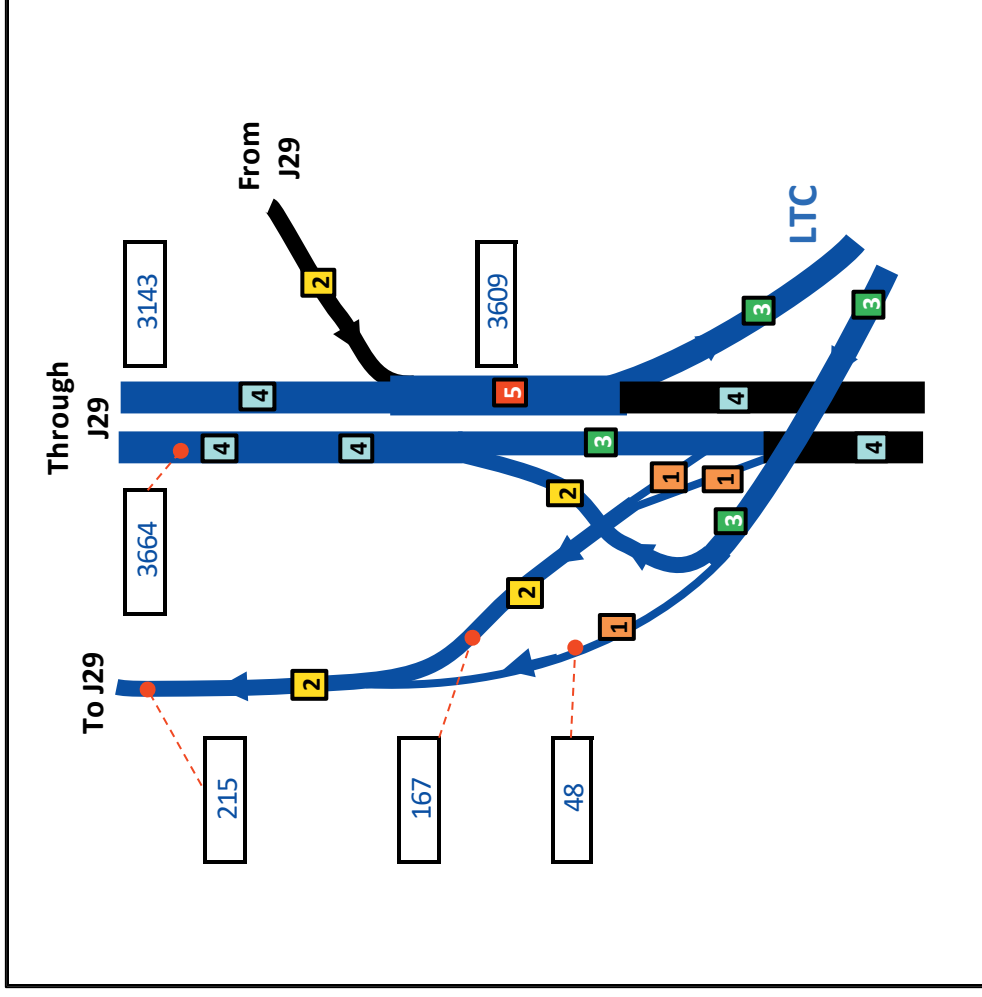


Figure F91 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCU's)

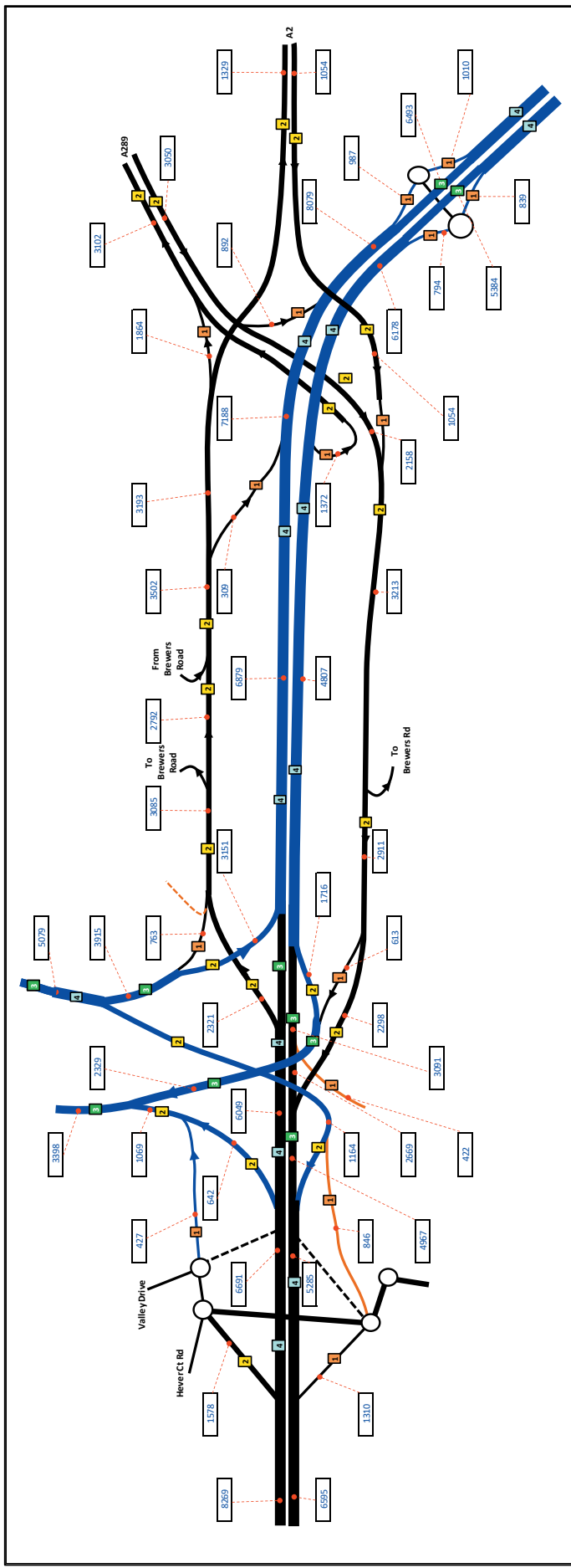


Figure F92 – LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGV (PCU's)

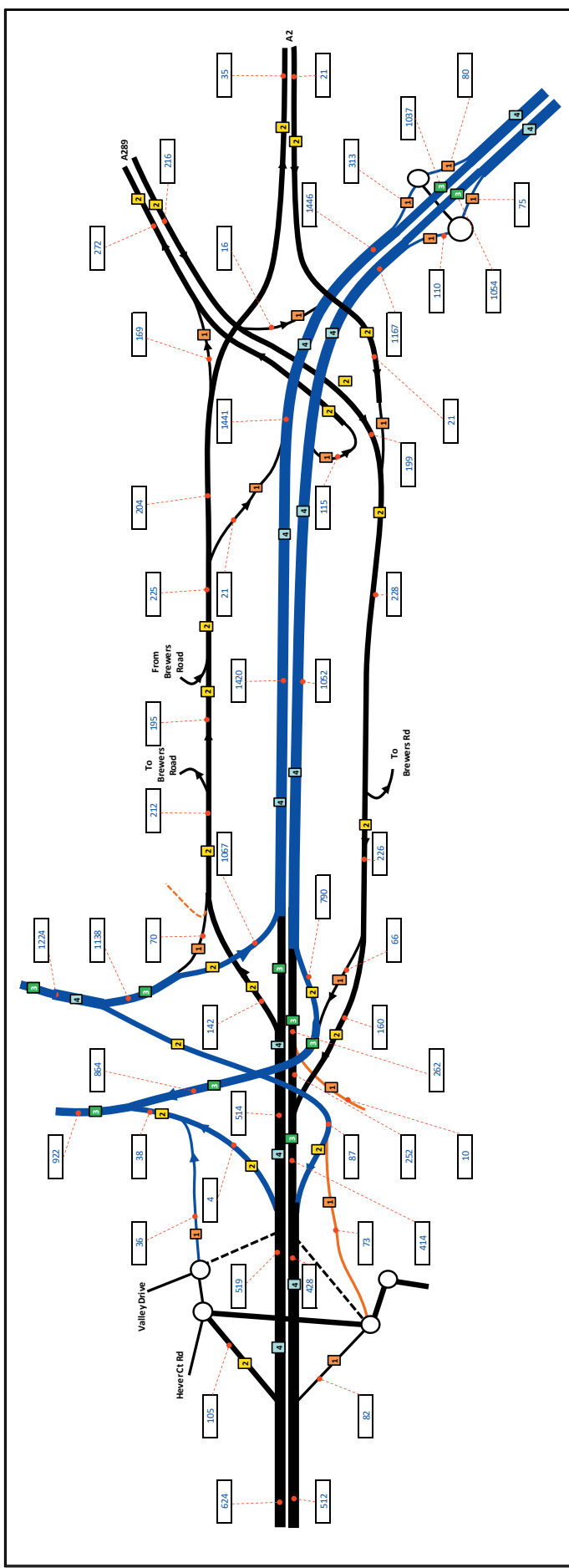


Figure F93 – LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCU's)

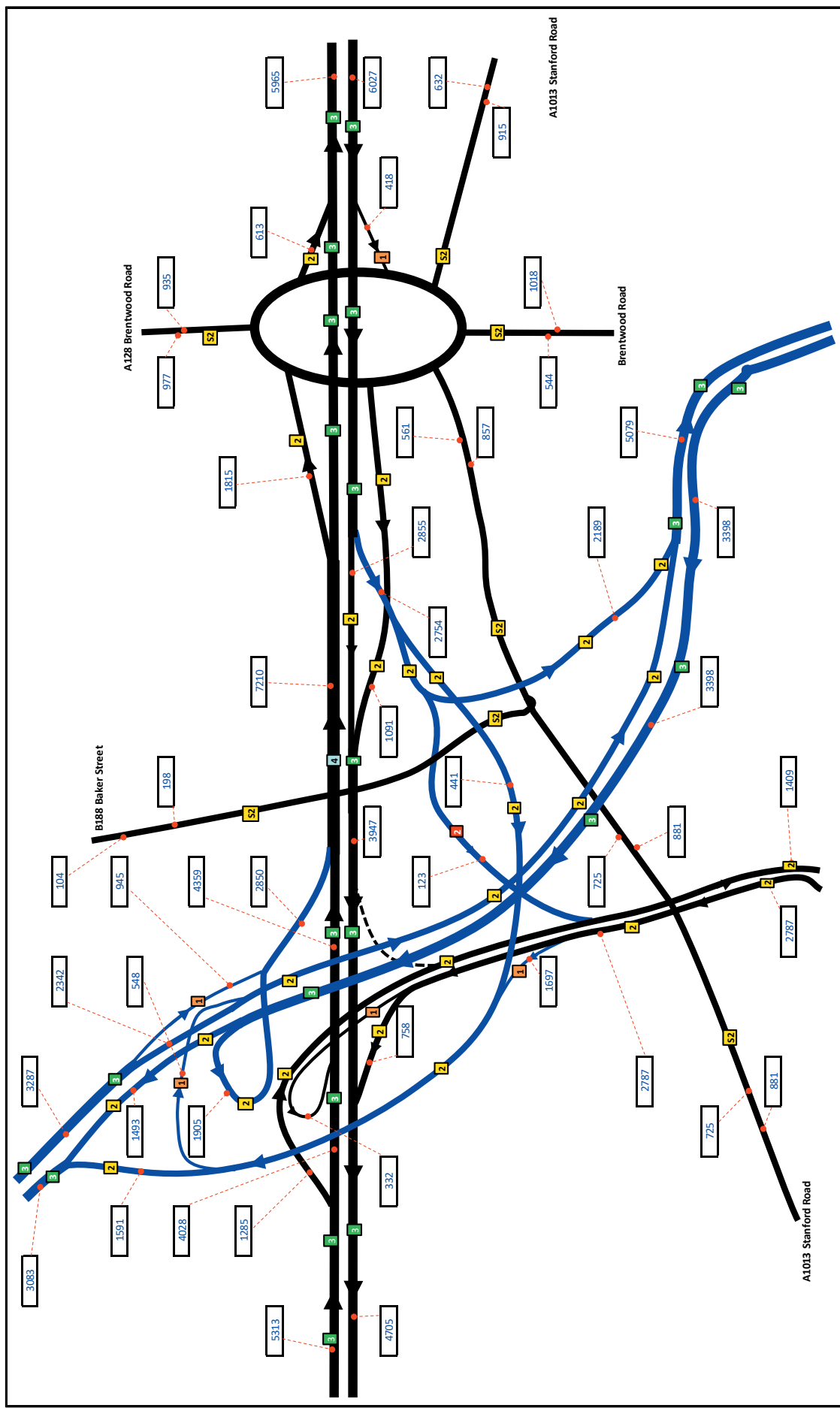


Figure F96 – LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGV (PCU's)

