

November 2023

# London Luton Airport Expansion

Planning Inspectorate Scheme Ref: TR020001

Volume 8 Additional Submissions (Examination)

**8.99 Applicant's Response to Issue Specific Hearing 4**  
**Action 6: Traffic on B489 Link**

Infrastructure Planning (Examination Procedure) Rules 2010

Application Document Ref: TR020001/APP/8.99

**The Planning Act 2008**

**The Infrastructure Planning (Examination Procedure) Rules 2010**

**London Luton Airport Expansion Development Consent  
Order 202x**

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**8.99 APPLICANT'S RESPONSE TO ISSUE SPECIFIC HEARING 4  
ACTION 6: TRAFFIC ON B489 LINK**

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## 1 INTRODUCTION

- 1.1.1 This Note is to address an action requested by the Examining Authority (“ExA”). The request was raised on the ExA’s Actions List **TR020001-001803-LUTN-Action-Points-for-ISH4.pdf (planninginspectorate.gov.uk)** following the Issue Specific Hearing (ISH) 4 on 28<sup>th</sup> September 2023. This Action is referred to as “Action 6”.
- 1.1.2 The Action is: *“Provide extracts to show traffic on the B489 link.”*
- 1.1.3 The road was highlighted as a concern by Buckinghamshire Council (BC) at ISH4 and raised in the summer 2023 during ongoing engagement with the Applicant. BC is concerned about the traffic impact of the Proposed Scheme on the junction of B489 and B488 to the immediate southeast of Ivinghoe. The location of the junction is shown in Figure 1.
- 1.1.4 The forecast total traffic increase in traffic at the junction, as a result of the proposed airport expansion, is only up to 38 equivalent passenger car units (PCUs) per hour, which, in relation to the overall total increase in traffic, is only up to 2.1%.
- 1.1.5 To explain and summarise the potential impact on the B489, and the junction of interest, this response is structured around three main points:
- a. Airport Trip Distribution;
  - b. Peak hour flow differences; and
  - c. Peak hour flow at the junction of B489 and B488.

## 2 THE STRATEGIC MODEL

- 2.1.1 The Central Bedfordshire and Luton Transport Model, Luton Airport version (CBLTM-LTN) has been used to inform this note. The Applicant considers the strategic model to be a suitable tool to assess the relative change in traffic on the B489 in Buckinghamshire, as a result of the proposed London Luton Airport expansion for the following reasons:
- a. The model has been calibrated and validated as per the DfT’s Transport Appraisal Guidance (TAG) guidance and considered fit for purpose by all Host Authorities and National Highways.
  - b. The model includes Buckinghamshire within its modelled simulation network, with the fully modelled area covering much of the county. This is shown in the Highway Local Model Validation Report (LMVR) **7.02 Transport Assessment Appendices – Part 1 of 3 Appendix E1 Highway LMVR Report [APP-201]**, Figure 4.1 CBLTM-LTN Fully Modelled Area and in the LMVR Figure 7.1 Luton Airport and Non-Airport CBLTM-LTN Zones.

- c. The mobile phone demand data, upon which the model travel demands have been built, includes the whole of Buckinghamshire, as shown in the Highway LMVR Figure 5.7 CBLTM-LTN Mobile Network Cordon.
- d. The model has also been calibrated / validated to screenlines for demands to/from the county, as shown in LMVR Figure 11.2 'Initial Assignment Calibration' Screenline Classification (Calibration=blue | Validation=Red) – Overview.
- e. The level of existing and future forecast airport traffic travelling to/from Buckinghamshire is observed and then forecast to remain relatively low, when compared to other areas as shown in the airport trip distribution plans.
- f. The level of traffic impact within Buckinghamshire is forecast to be relatively low, as shown in Strategic Modelling Forecasting Report **7.02 Transport Assessment Appendices – Part 2 of 3, Appendix F Strategic Modelling Forecasting Report [APP-201]**.

### 3 B489 TRAFFIC

#### 3.1 Airport Trip Distribution

- 3.1.1 The Airport trip distribution has been reported in the Strategic Modelling Forecasting Report **7.02 Transport Assessment Appendices – Part 2 of 3, Appendix F Strategic Modelling Forecasting Report [APP-201]** and more recently to the ExA following a request to produce daily airport trip distribution plans for Deadline 1 **[REP1-019]**. An updated version of the Trip Distribution Plans with improved visual background (as requested by the ExA as Action 5 to ISH4) is also being submitted. This shows the forecast airport demand, for both passengers and staff, in the form of Average Daily Traffic (ADT) representing an October busy day, with the existing airport demand distribution having been derived from Civil Aviation Authority (CAA) data.
- 3.1.2 The Trip Distribution Plans show that the existing and future forecast daily airport volumes of traffic travelling along the B489 are small relative to the total traffic generation for the airport. For airport passengers, the plans show a very thin blue line along the B489 in all scenarios. Whereas, for airport staff there is no visible red line, indicating extremely low volumes, which is explained further in this report.
- 3.1.3 The following Trip Distribution Plans have been replicated within this response as:
  - a. Figure 2 2016 Base Passenger Trip Distribution
  - b. Figure 3 2016 Base Staff Trip Distribution
  - c. Figure 4 2043 Without Expansion (18mppa) Passenger Trip Distribution
  - d. Figure 5 2043 Without Expansion (18mppa) Staff Trip Distribution
  - e. Figure 6 2043 With Expansion (32mppa) Passenger Trip Distribution
  - f. Figure 7 2043 With Expansion (32mppa) Staff Trip Distribution

- 3.1.4 From the 2016 base data underlying Figures 2 and 3, the overall proportions of daily airport traffic travelling on the B489 corridor are low relative to total airport traffic, both for staff and passengers, where the percentage is around 4% of passengers and 1% of staff.
- 3.1.5 In the future years without expansion (18mppa), these percentages remain at 4% of total airport passengers and 1% of total airport staff.
- 3.1.6 With the proposed expansion, this is forecast to change slightly to 3% of total airport passengers and remain at 1% of total airport staff.
- 3.1.7 The coloured lines along the B489 within the trip distribution plans are therefore very thin for airport passengers, compared with other routes, and non-existent for airport staff due to the very small percentage and overall total volumes.
- 3.1.8 Further information on the with expansion AM, inter and PM peak airport distribution for 2027, 2039 and 2043 has also been reported within the Strategic Modelling Forecasting Report **7.02 Transport Assessment Appendices – Part 2 of 3, Appendix F Strategic Modelling Forecasting Report [APP-201]**, Figure 5.5: Forecasting Routing to / From Luton Airport.

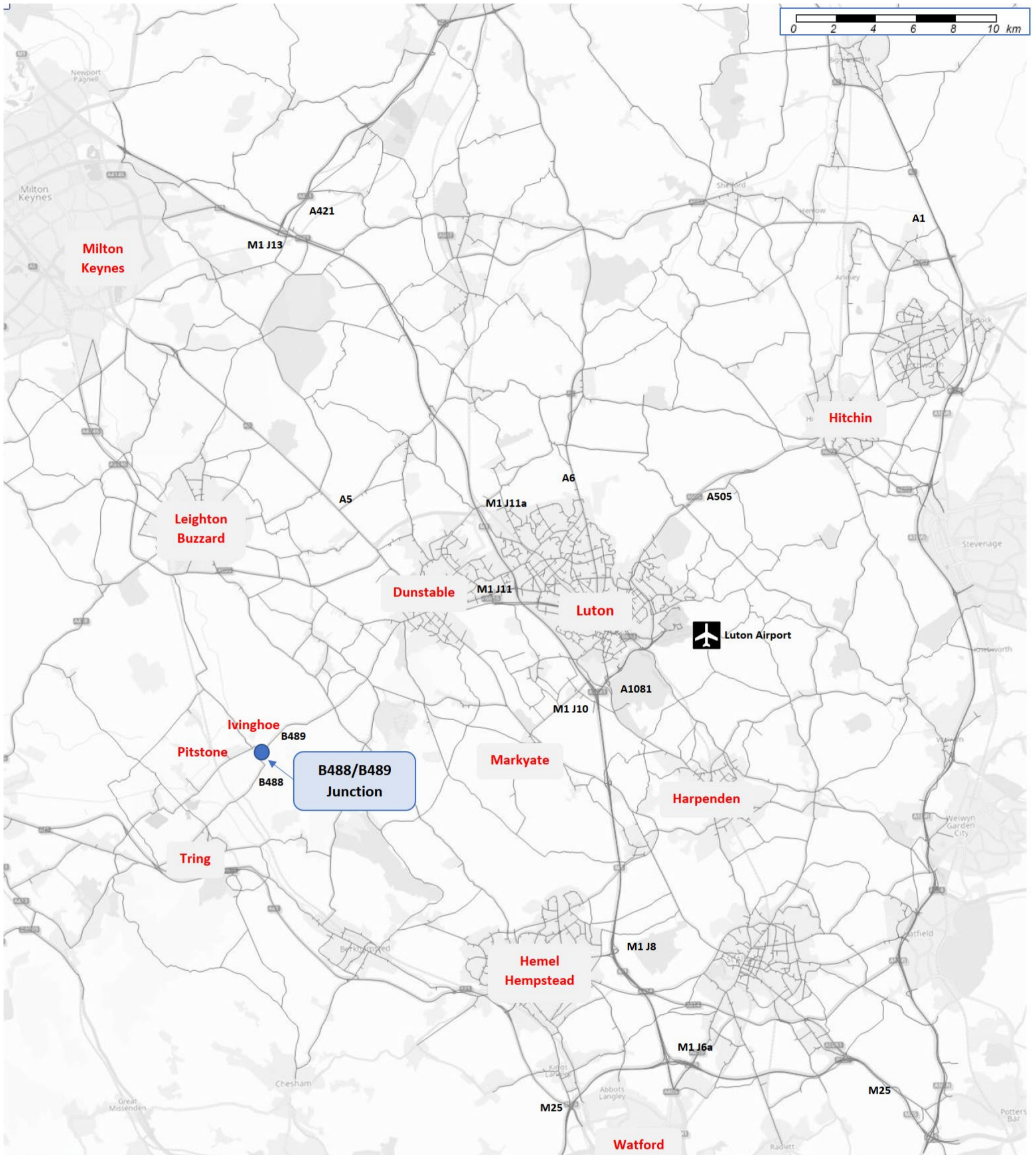


Figure 1 – Location of B488 / B489 Junction, Ivinghoe

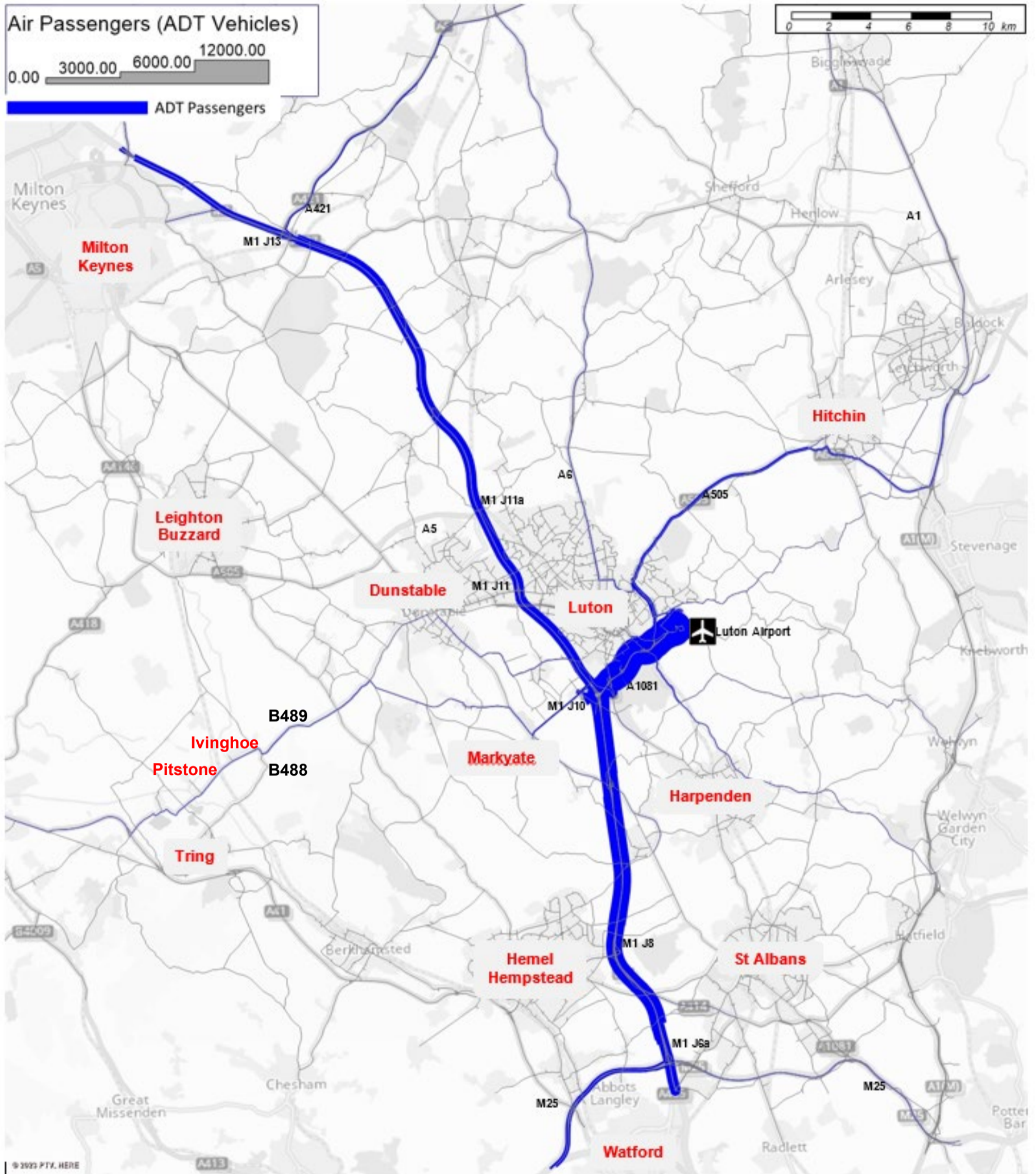


Figure 2 - 2016 Base Passenger Trip Distribution



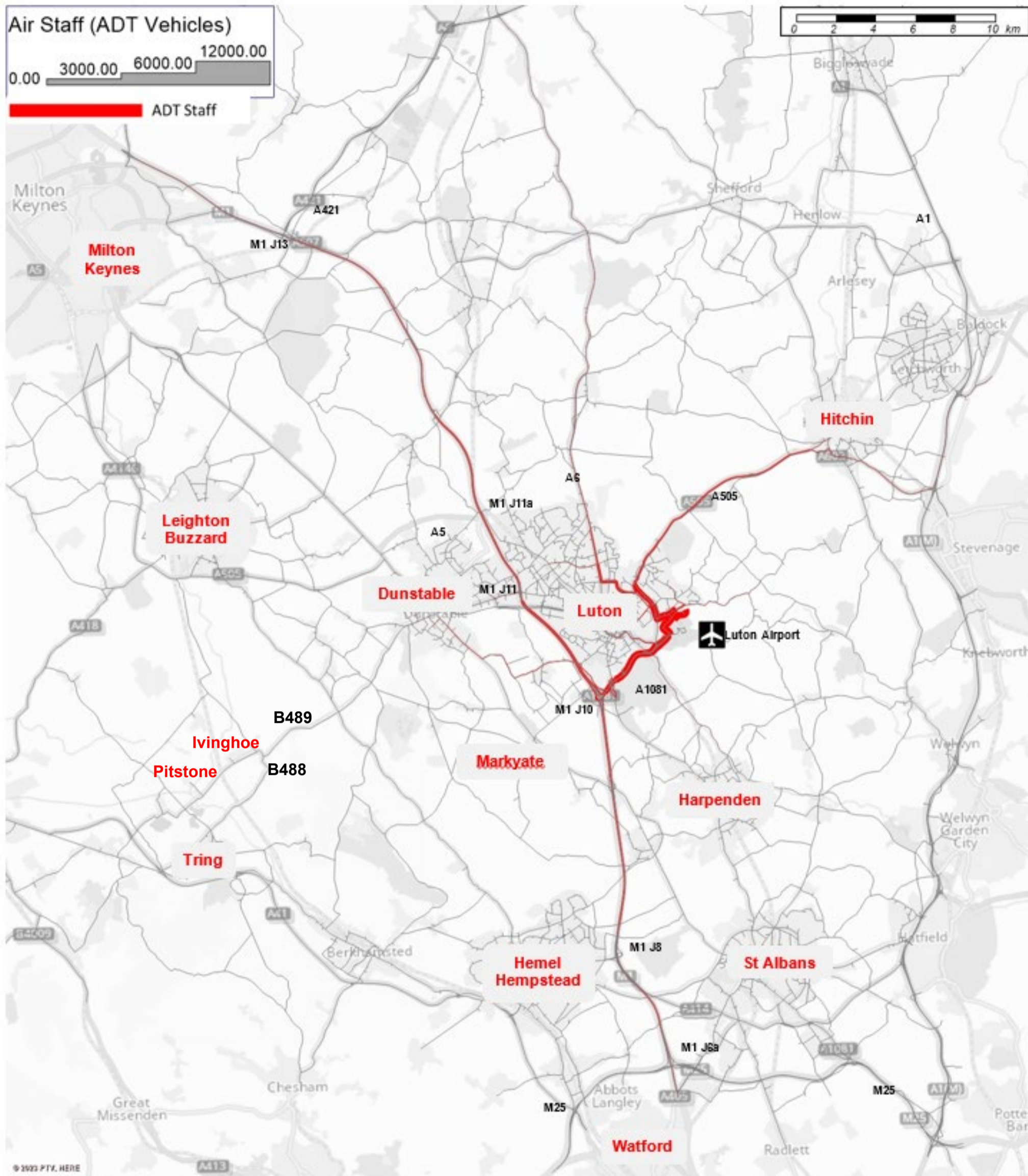


Figure 3 - 2016 Base Staff Trip Distribution

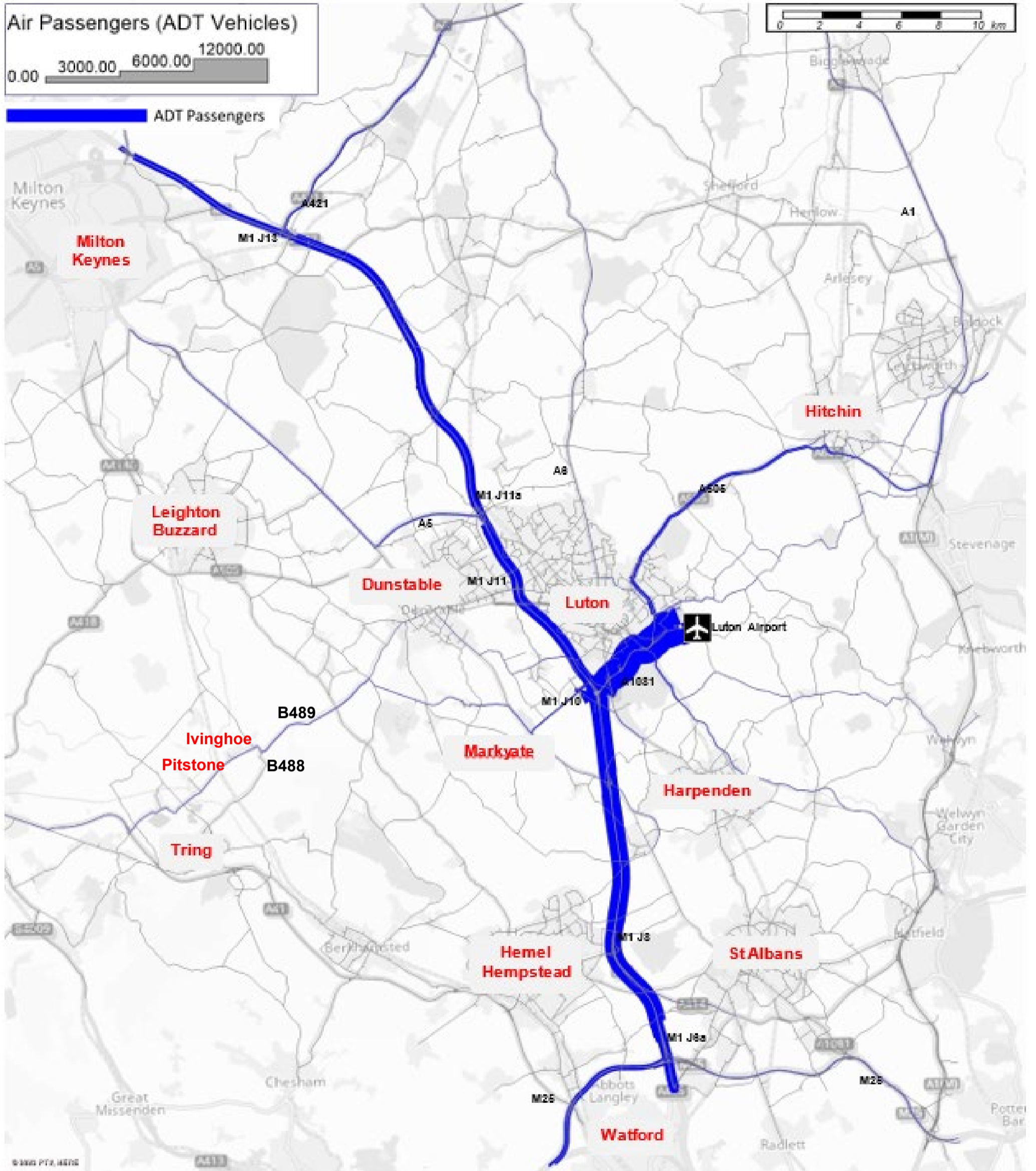


Figure 4 - 2043 Without Expansion (18mppa) Passenger Trip Distribution

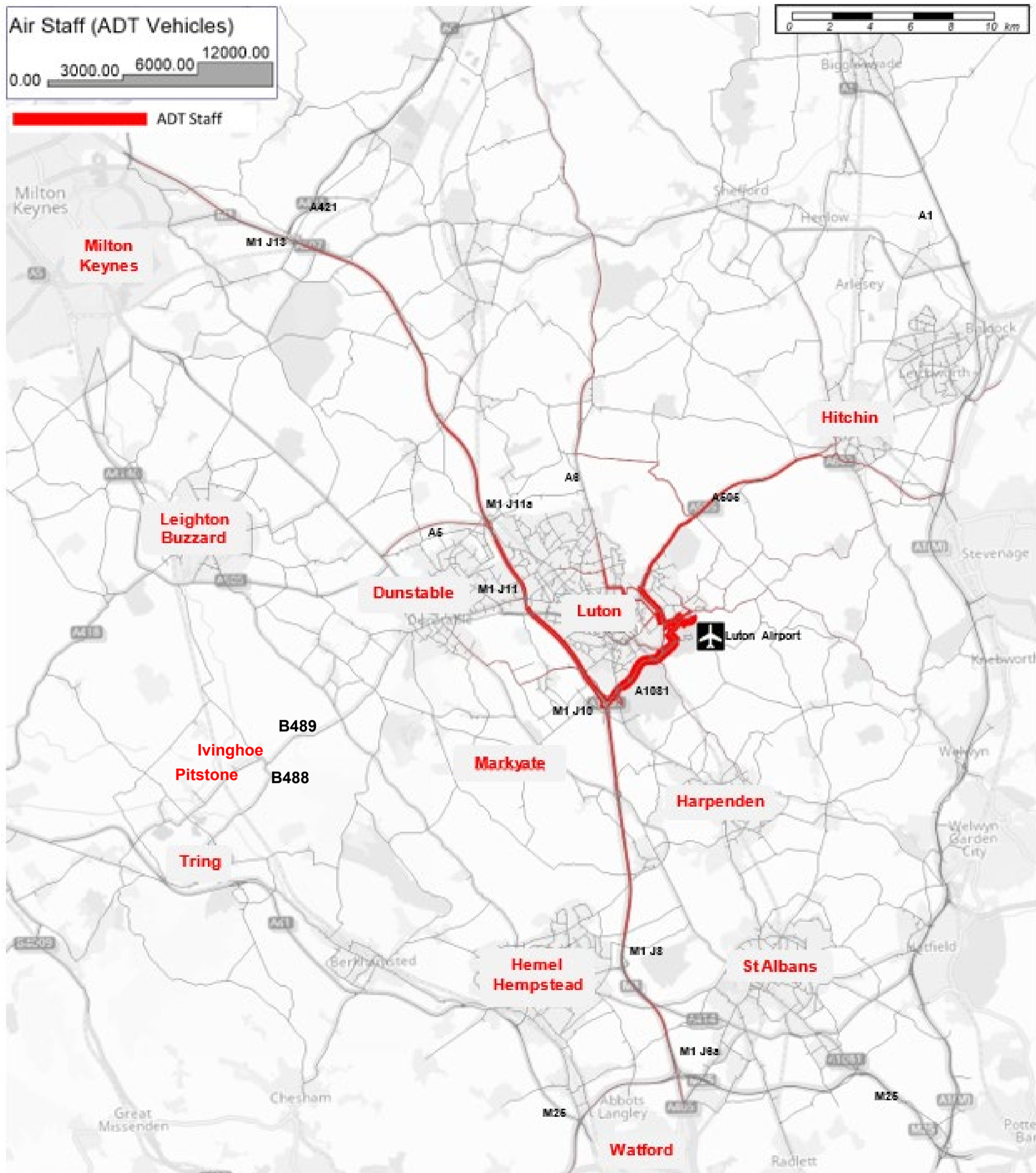


Figure 5 - 2043 Without Expansion (18mppa) Staff Trip Distribution

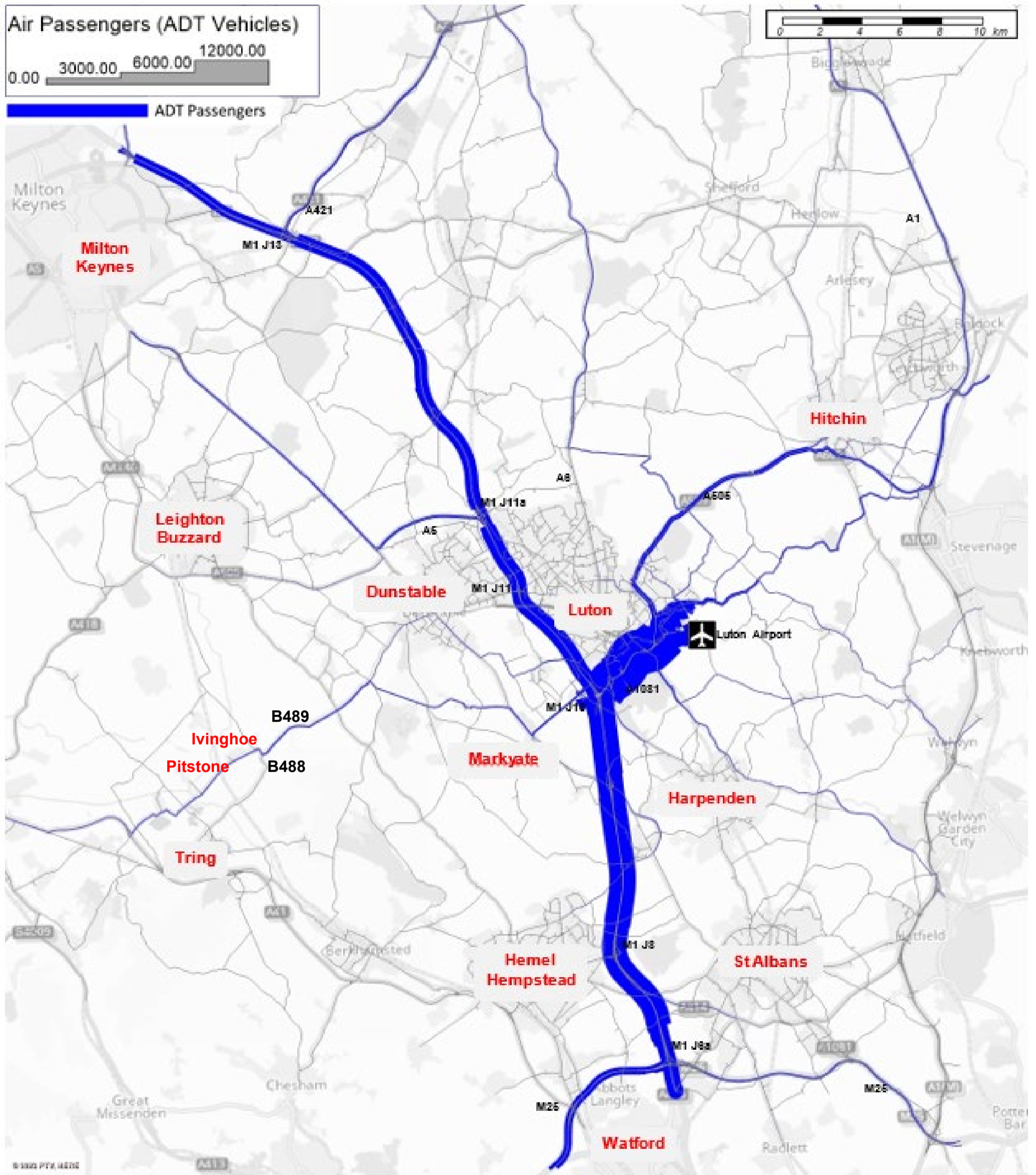


Figure 6 - 2043 With Expansion (32mppa) Passenger Trip Distribution

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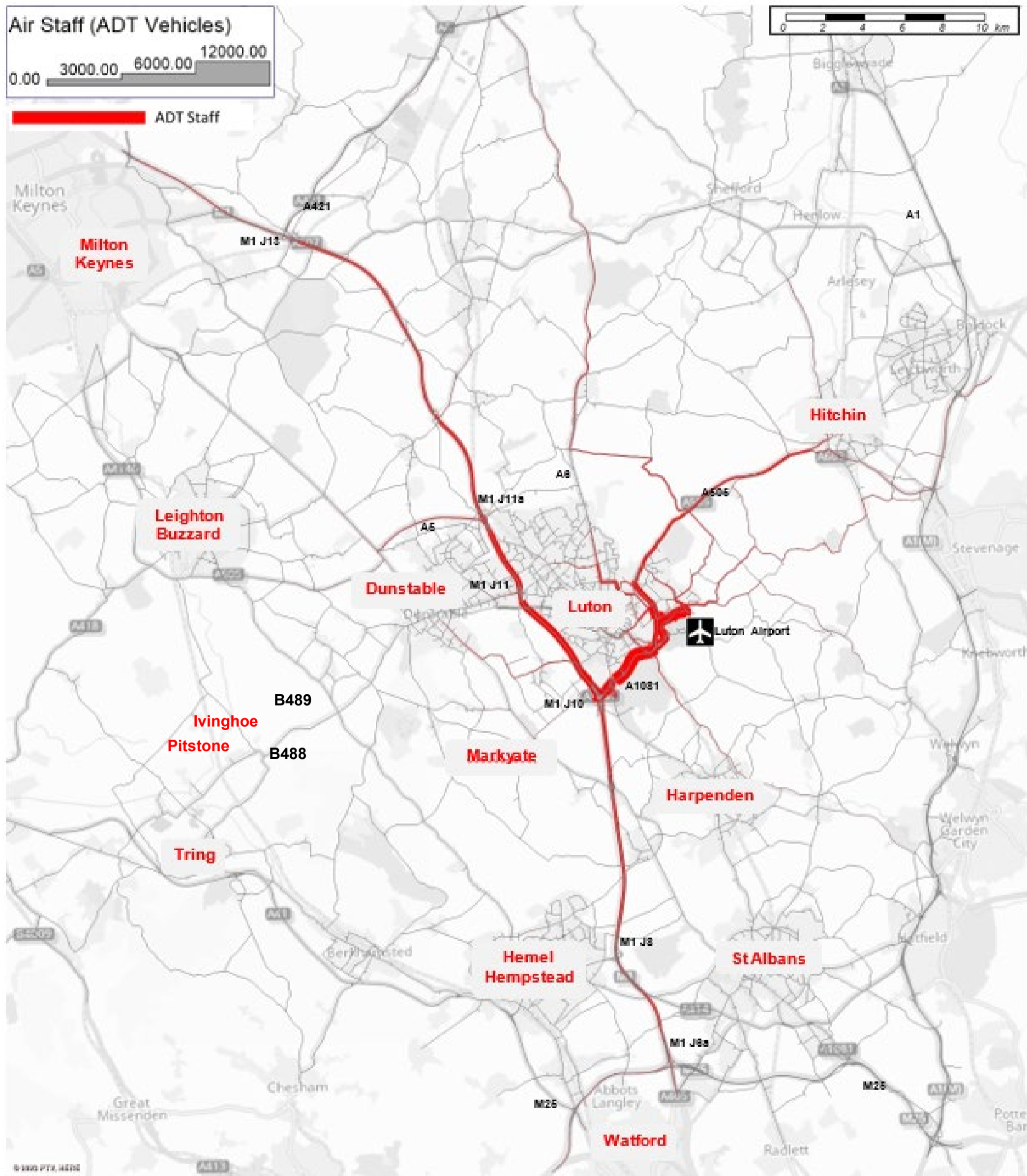


Figure 7 - 2043 With Expansion (32mppa) Staff Trip Distribution

## 3.2 Peak Hour Flow Differences Across Study Area

- 3.2.1 Within the Strategic Modelling Forecasting Report **7.02 Transport Assessment Appendices - Part 2 of 3 Appendix F: Strategic Modelling Forecasting Report. The Strategic Modelling Forecasting Report, Appendix F of the Transport Assessment [APP-201]** there is an extensive level of outputs reported. This includes traffic flow difference plots showing the impact of the additional airport traffic on the network.
- 3.2.2 Figures 5.3 and 5.4 in the report show the level of impact and indicate only very small increases in areas to the west of the M1, which includes the BC road network. For ease of reference these figures have been replicated below as Figures 8 and 9.
- 3.2.3 Figure 8 shows the wider road network which includes some of the Buckinghamshire road network with labels to highlight the location of the B489 to the north-east of Ivinghoe. Figure 9 shows a zoomed-in area adjacent to the airport and the M1, to provide more detailed information on the traffic impact which is predominantly on the road network to the east of Buckinghamshire and therefore mainly impacting Luton, Central Bedfordshire and Hertfordshire.



Figure 8 (Part 1 / 2) - Forecast Change in Traffic Volumes (vehicles) between TAG-based "Without" and "With" Expansion, Simulation Network

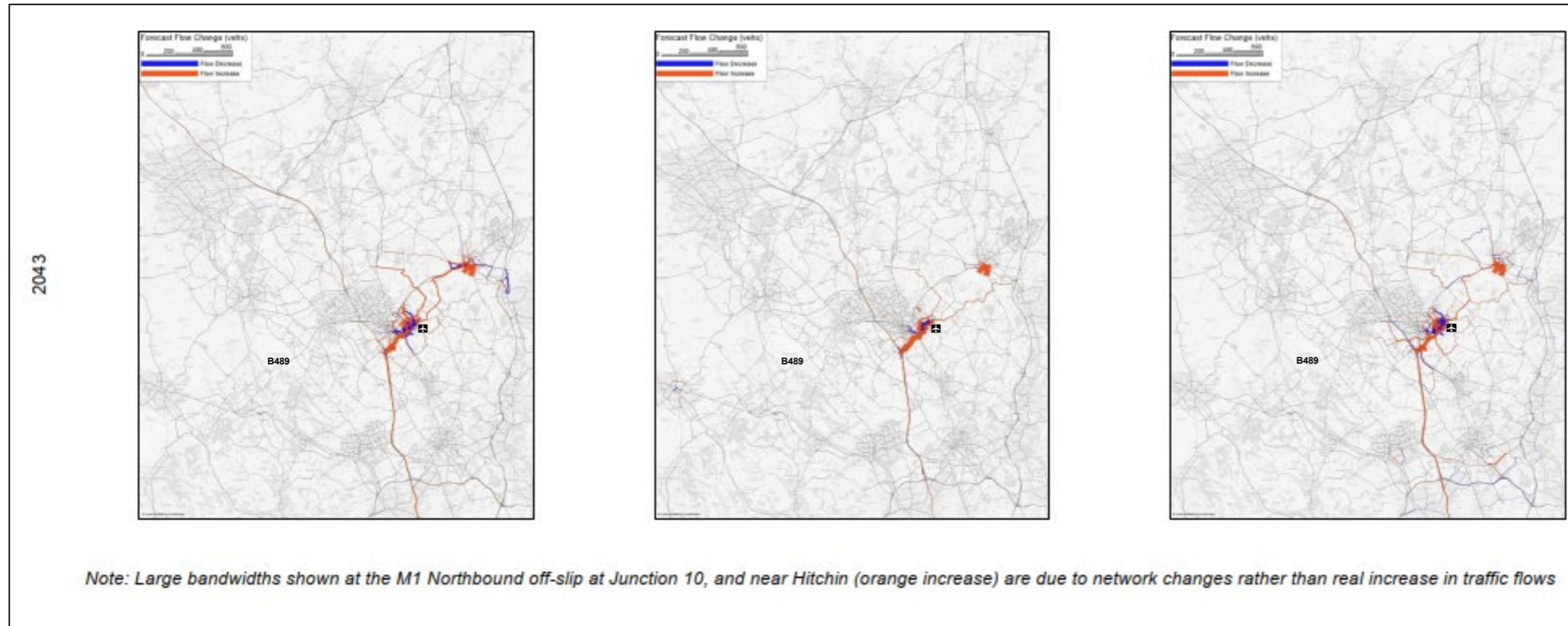


Figure 8 (Part 2 / 2) - Forecast Change in Traffic Volumes (vehicles) between TAG-based "Without" and "With" Expansion, Simulation Network



Figure 5.4: Forecast Change in Traffic Volumes (vehicles) between TAG-based "Without" and "With" Expansion, Luton Borough



Figure 9 (Part 1 / 2) - Forecast Change in Traffic Volumes (vehicles) between TAG-based "Without" and "With" Expansion, Luton Borough

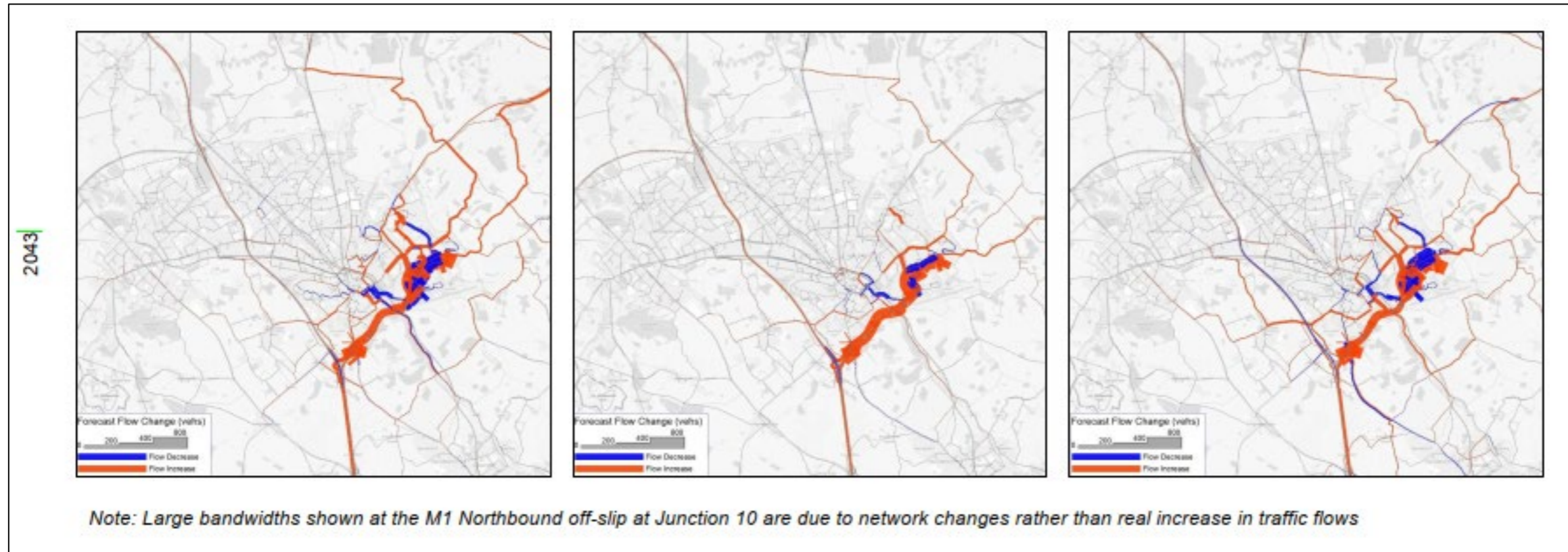


Figure 9 (Part 2 / 2) - Forecast Change in Traffic Volumes (vehicles) between TAG-based “Without” and “With” Expansion, Luton Borough

### 3.3 Peak Hour Flow Differences at Junction of B489 / B488, Ivinghoe

3.3.1 BC raised specific concerns in relation to the impact of the airport traffic on the junction of B489 and B488 immediately to the southeast of Ivinghoe. At a meeting on 8<sup>th</sup> August 2023 with BC, the Applicant presented peak hour flow extracts to illustrate the relative change in traffic levels as a result of the airport expansion. When considering the impact on road and junction capacity, it is the peak hourly traffic that would influence operational capacities.

3.3.2 The table below summarises the overall increase in traffic at the junction of interest for all forecast modelled years, with the numbers taken from the same model runs that underly the flow differences presented in Figures 8 and 9. The table shows the relative total traffic increase on the junction and the percentage change between the With and Without Expansion runs in brackets.

Year	AM Peak			PM Peak		
	Without Expansion	With Expansion	Difference	Without Expansion	With Expansion	Difference
2027	1,589	1,594	5 (+0.3%)	1,595	1,607	12 (+0.7%)
2039	1,759	1,779	20 (+1.1%)	1,786	1,797	11 (+0.6%)
2043	1,812	1,850	38 (+2.1%)	1,833	1,861	28 (+1.5%)

*Note: The traffic values expressed in Passengers Car Units (PCU) per hour*

3.3.3 The table shows the total traffic increase in traffic at the junction with these numbers being relatively small in volume, only up to 38 PCUs per hour, and also in relation to the overall increase in traffic, only up to 2.1%.

3.3.4 In conclusion, it is considered that such a small numerical and percentage increase in total traffic cannot be considered as 'severe' and would not warrant the need for capacity improvement as a result of the proposed airport expansion.