



Thurrock Council
*Thurrock Strategic Transport
Model – Forecasting Report*



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Date issued: 04/06/2026

Document status: Issued

Version number: 1.2

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Cadence Enabled Report

We have provided access to our visualisation tool Cadence to support access and interaction with relevant maps included in this report. Please use this link: [Thurrock Transport Model – FY 2044](#) to view maps related to V/C and flow difference outputs. [Thurrock UL Maps](#) presents maps related to the Uncertainty Log, zones, and zone trip ends.

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Table of Abbreviations

Abbreviation	Meaning
ADM	Area of Detailed Modelling
ATC	Automatic Traffic Count
DfT	Department for Transport
FMA	Fully Modelled Area
GTFS	General Transit Feed Specification
HBEB	Home-Based Employer Business
HBO	Home-Based Other
HBW	Home-Based Work
HGV	Heavy Goods Vehicle
ITN	Integrated Transport Network
LGV	Light Goods Vehicle
LMVR	Local Model Validation Report
LSOA	Lower Super Output Area
MCC	Manual Classified Count
MGV	Medium Goods Vehicle
MND	Mobile Network Data
MSOA	Middle Super Output Area
NHBEB	Non-Home-Based Employer Business
NHBO	Non-Home-Based Other
NTEM	National Trip End Model
NTS	National Travel Survey
OD	Origin-Destination
OGV	Ordinary Goods Vehicle
PA	Production-Attraction
PCU	Passenger Car Unit
PPK	Pence Per Kilometre
PPM	Pence Per Minute
RFMA	Rest of FMA
RTM	National Highways Regional Traffic Model
SERTM	South-East Regional Traffic Model
SRN	Strategic Road Network
TAG	Transport Analysis Guidance
TEMPro	Trip End Model Presentation Program
TIS	Trip Information System
TRIS	Traffic Information System
TSTM	Thurrock Strategic Transport Model
VOT	Value of Time
WBO	Work-Based Other

1 Introduction

1.1 Model Background

To support Thurrock Council's ongoing Local Plan development, City Science was commissioned by Thurrock Council to update the Thurrock Strategic Transport Model (TSTM) to a 2023 base year. The original 2019 base year model, developed by City Science in partnership with Veitch Lister Consulting (VLC), was delivered in June 2023. The 2019 model was developed to inform the Local Plan, albeit at an earlier stage. It was built using the LTAM model as starting point.

1.2 Context

The Thurrock Strategic Transport Model (TSTM) is a multi-modal, strategic model that represents both highway and public transport travel. It incorporates network assignment components and is designed to reflect movements within, to, from, and through Thurrock and the surrounding areas.

The 2023 base year model update was undertaken to address limitations identified in the previous model, particularly those resulting from the Covid-19 pandemic, which significantly affected observed travel behaviour and data collection. However, the Variable Demand Model (VDM) element of the TSTM was not updated as part of the 2023 rebase and has therefore not been used. The VDM was based on pre-Covid conditions, and there was insufficient data available to support a robust update to 2023. In addition, updating the VDM did not align with the project programme.

1.3 Purpose of this Report

The purpose of this Technical Forecast Report is to outline the key findings and impact of the development of future-year forecasting scenarios in line with the Thurrock's Local Plan. It aims to describe the forecasting approach and assumptions taken to reflect planned growth and development within the area.

1.4 Report Structure

This report proceeds with the following structure:

- **Chapter 2 – Model Overview:** summarises the TSTM's coverage, segmentation, cost parameters, and base-year validation.
- **Chapter 3 – Forecasting Approach:** This section outlines the forecasting methodology adopted to develop the various forecast scenarios.
- **Chapter 4 – Forecasting Demand:** Details the methodology used to estimate future travel demand for 2044 by combining growth from planned developments and background traffic, applied across all peak periods
- **Chapter 5 – Forecasting Network:** Outlines the future network changes, updates to generalised costs, and zone modifications applied in the 2044 forecast scenarios.
- **Chapter 6 – Model Outputs:** Presents forecast results, including network performance, journey times, congestion analysis, and model convergence.
- **Chapter 7 – Conclusion:** Summary of key findings highlighting the impact of Local Plan growth on transport.

2 Model Overview

2.1 Model Coverage

The TSTM covers the whole of Essex, the Greater London area, selected districts in Kent such as Gravesham, Dartford, as well as Medway, and other locations that have direct access to the M25 such as Buckinghamshire, Windsor and Maidenhead. The modelled area consists of the Fully Modelled Area (FMA) (comprised of the Area of Detailed Modelling (ADM) and the rest of the Fully Modelled Area (RFMA)) and the External Area with different levels of modelling detail. The geographic coverage of the ADM, RFMA and the external area are shown in **Figure 2-1**.

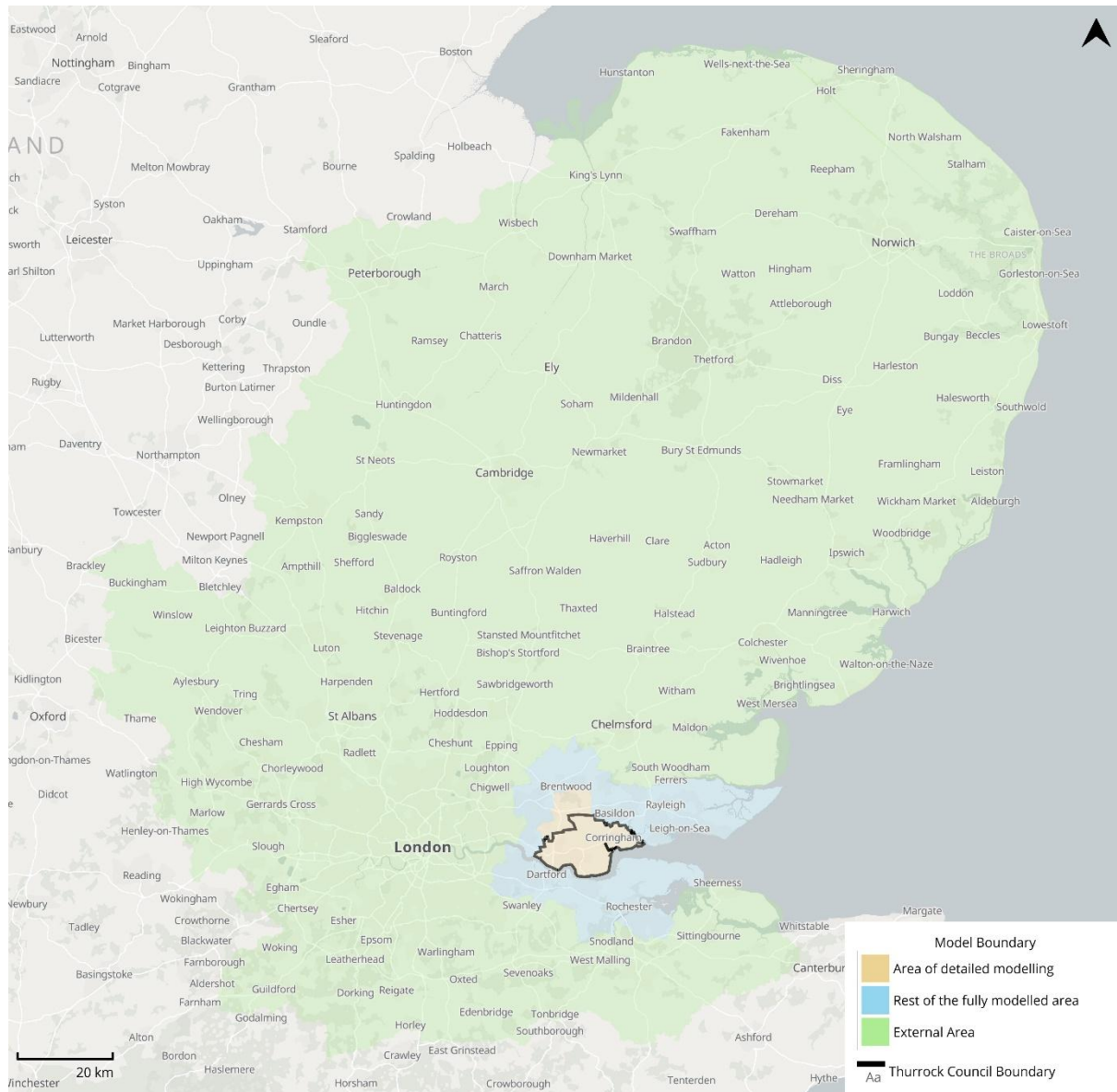


Figure 2-1: TSTM Geographic Coverage

2.2 Transport Network Coverage

Figure 2-2 illustrates the highway network coded in SATURN comprising of simulation and buffer links. Whereas **Figure 2-3** shows the public transport network for the full model extent and ADM respectively. The coded EMME transit lines are separated by mode; bus (b), ferry (f), and rail (r).

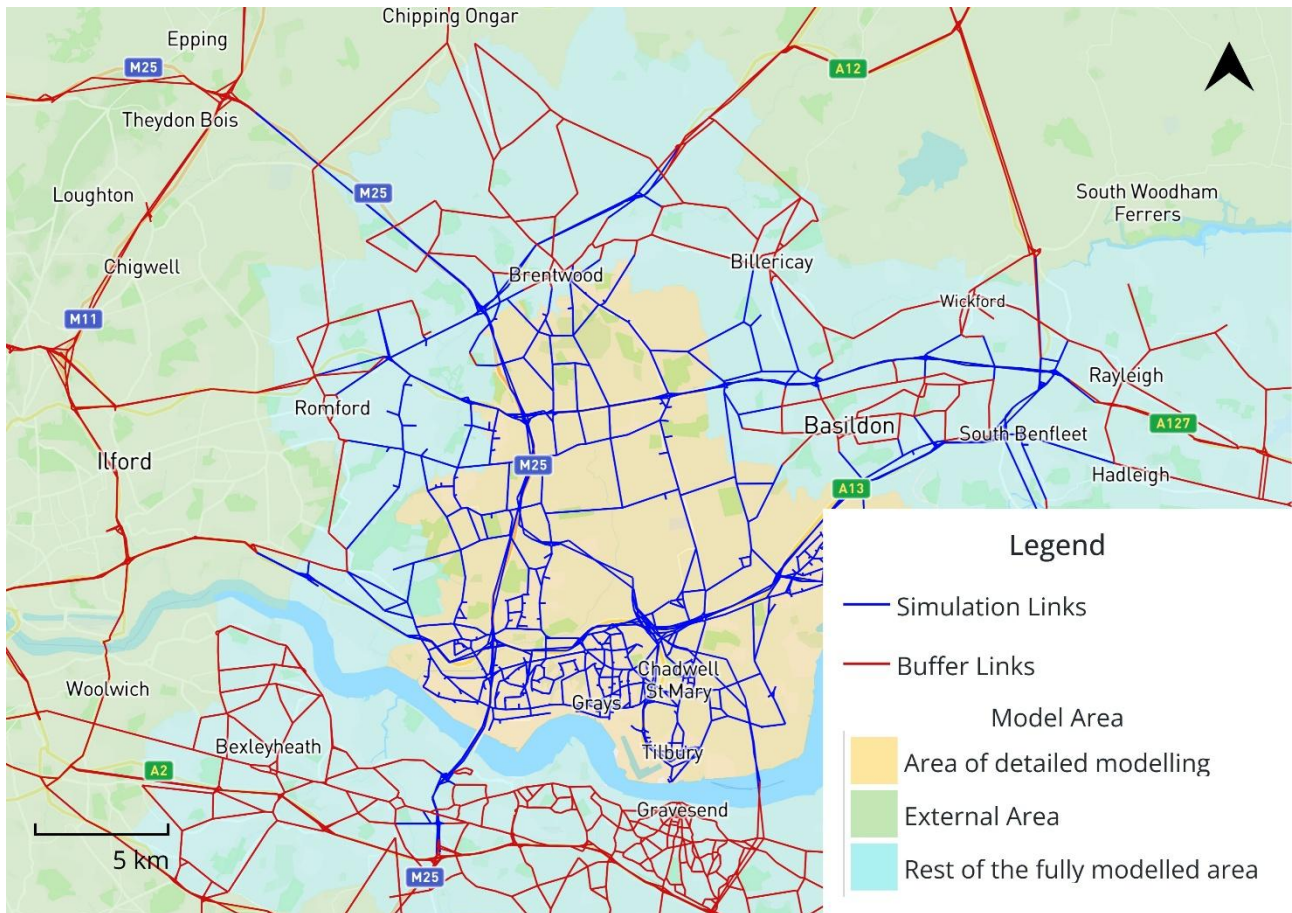


Figure 2-2: Modelled Highway Transport Network

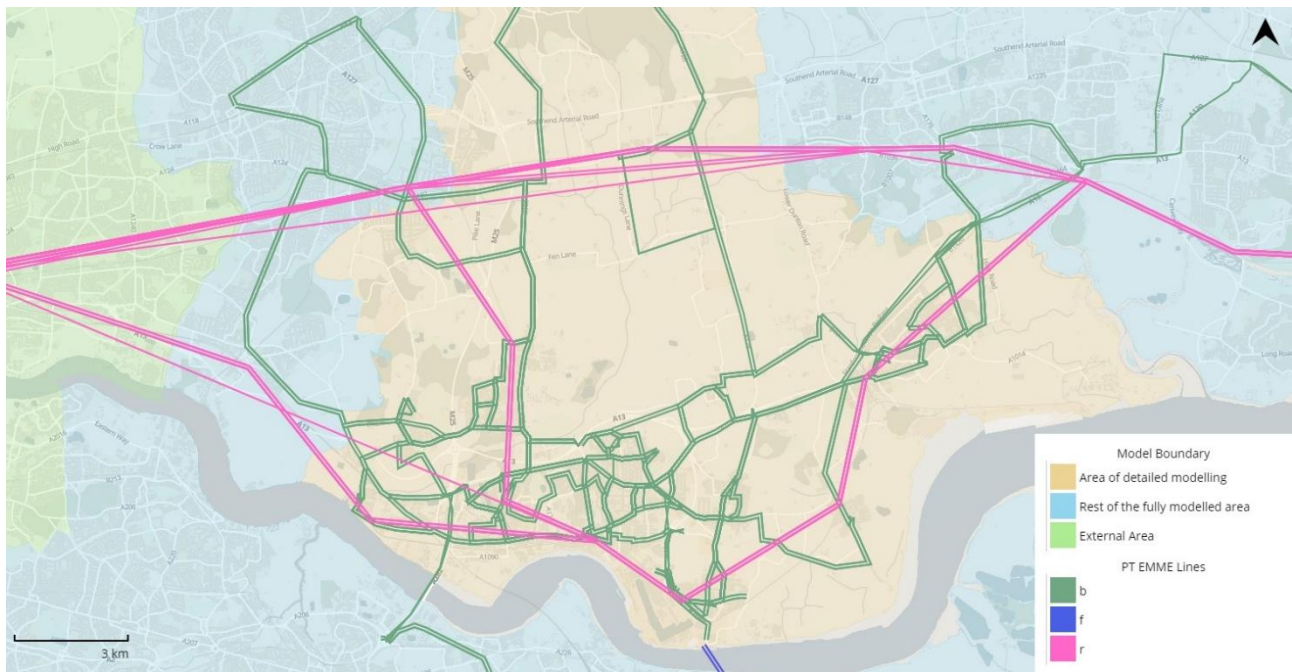


Figure 2-3: Modelled Public Transport Network

2.3 Model Segmentation

The same segmentation structure has been retained in both the base and forecast years. TAG M3.1 suggests that vehicle operating costs (VoC) vary by vehicle type and Value of Time (VoT) vary by the trip purpose, with the following user classes defined within the TSTM Highway Assignment Model (HAM) as shown in **Table 2-1**.

Vehicle & Purpose	User Class
Car – Business	1
Car – Commute	2
Car – Other	3
LGV	4
HGV	5

Table 2-1: User Classes used in Highway Model

For the PT Model, we have one user class for the PT user. The model assumes three trip purposes in the determination of public transport demand: Business, Commute, and Other. Demand is therefore segmented by trip purpose at the demand determination stage. These purposes are then combined within the public transport assignment component.

2.4 Model Peak Hours

The peak hours for the TSTM HAM are as follows:

- the morning peak hour from 08:00 to 09:00,
- the evening peak hour from 17:00 to 18:00,
- an average inter-peak hour between 10:00 and 16:00, and
- the Saturday peak hour between 12:00 to 13:00.

For the PT model, the defined peak periods are as follows:

- AM peak from 07:00–10:00,
- Interpeak from 10:00–16:00,
- PM peak from 16:00–19:00, and
- Saturday peak from 11:00–14:00.

2.5 Base Model PPM and PPK

For the five user classes, as described in the previous section, the values of PPM and PPK for the base highway model are presented in **Table 2-2** and **Table 2-3** for the respective peak hours. A multiplier of 2 was applied to the HGV Value of Time, covering both operational time and cost; this is as suggested in TAG Unit 3.1.

User Class	AM	IP	PM	SAT
Car Business	31.17	31.94	31.62	36.20
Car Commute	20.90	21.24	20.97	22.28
Car Other	14.42	15.36	15.10	17.86
LGV	23.18	23.18	23.18	25.01
HGV	48.42	48.42	48.42	48.42

Table 2-2: Base Year Values of PPM

User Class	AM	IP	PM	SAT
Car Business	11.91	11.91	11.91	11.91
Car Commute	6.06	6.06	6.06	6.06
Car Other	6.06	6.06	6.06	6.06
LGV	13.38	13.38	13.38	13.38
HGV	37.48	37.48	37.48	37.48

Table 2-3: Base Year Values of PPK

The VoT for public transport is represented through function parameters such as walk time, wait time, transfer penalties, and others.

2.6 Base Model Zoning

The figure below depicts the SATURN zoning system around Thurrock. The same zoning applies for both highway and PT for the base year.

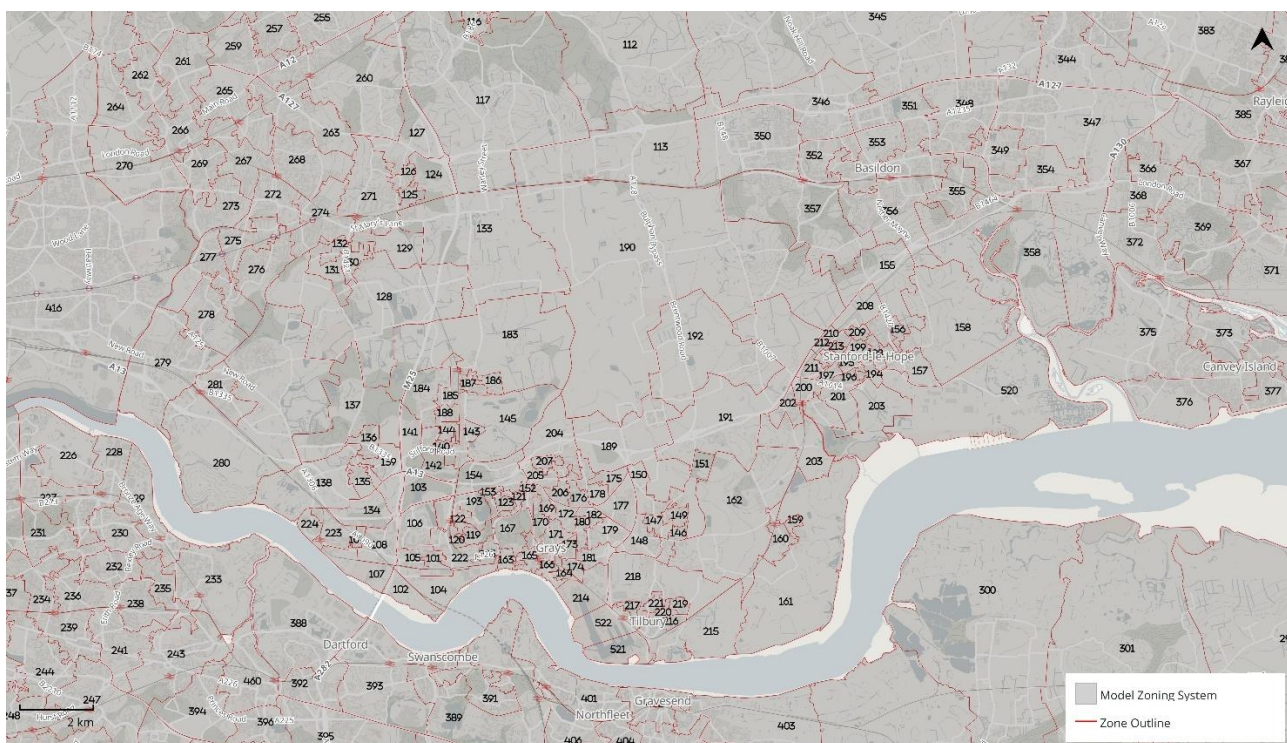


Figure 2-4: Base Zoning System Around Thurrock

2.7 Model Calibration and Validation Summary

2.7.1 Highway

A summary of the base year calibration and validation for each peak period of the model is presented in Figure 2-5 to Figure 2-8 below.

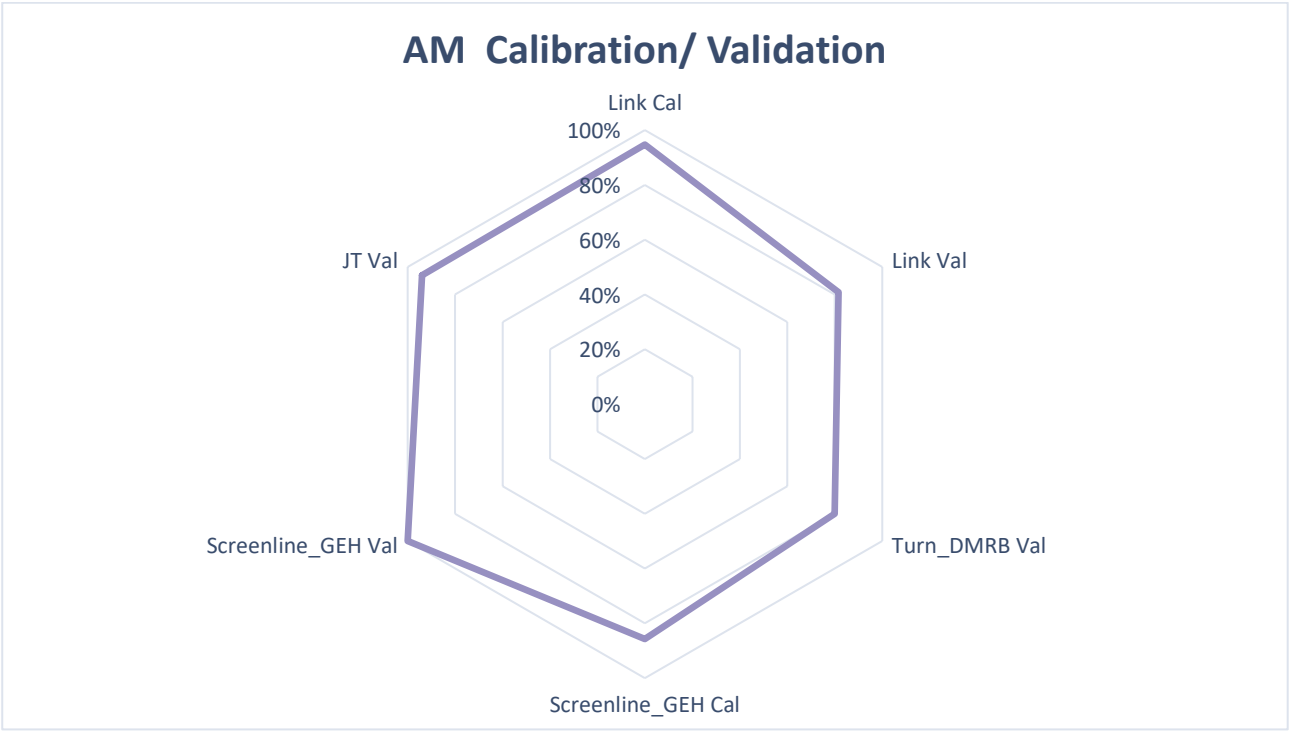


Figure 2-5: AM Peak Calibration/Validation

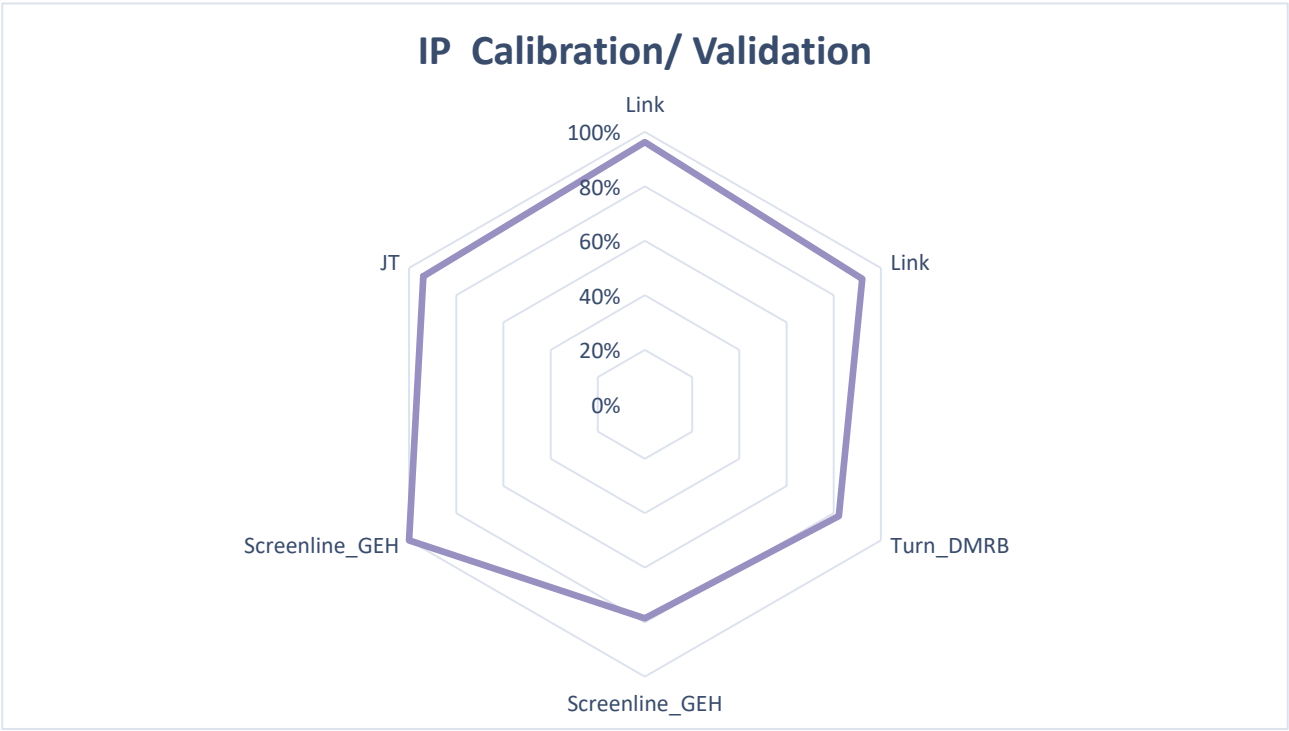


Figure 2-6: Inter-Peak Calibration/Validation

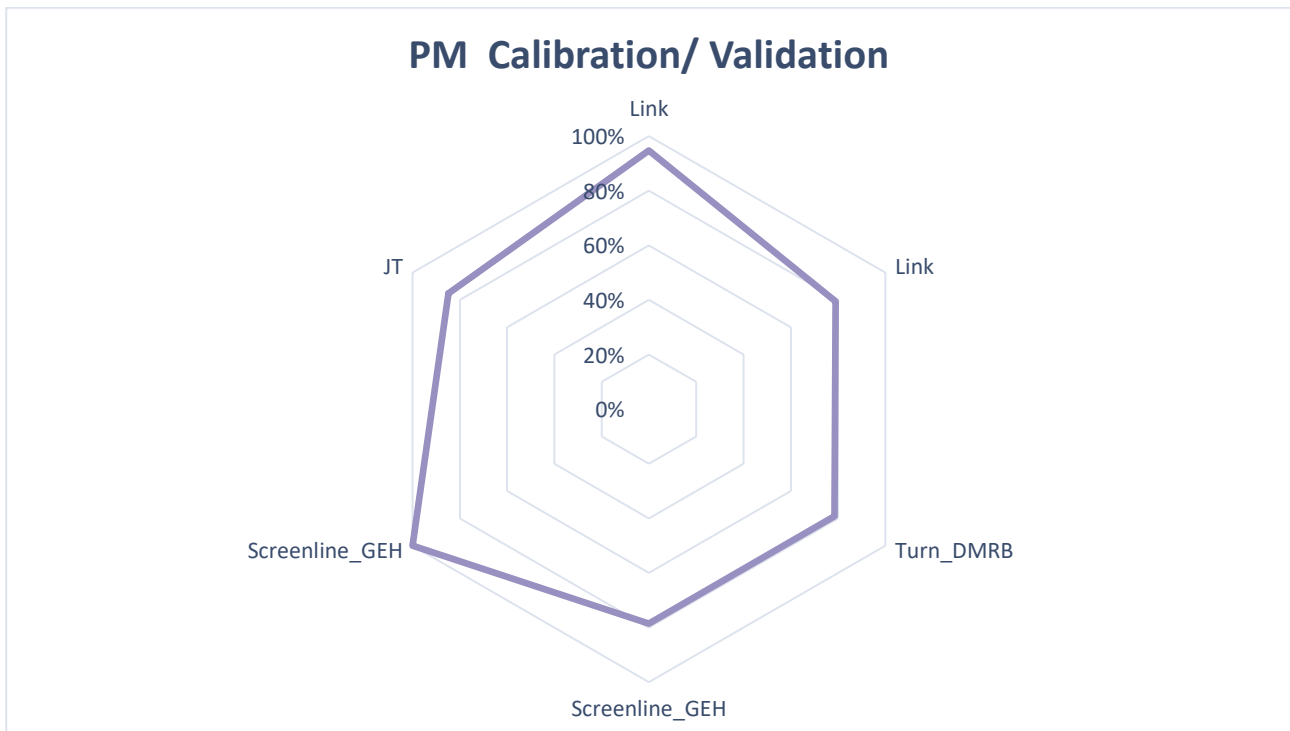


Figure 2-7: PM Peak Calibration/Validation

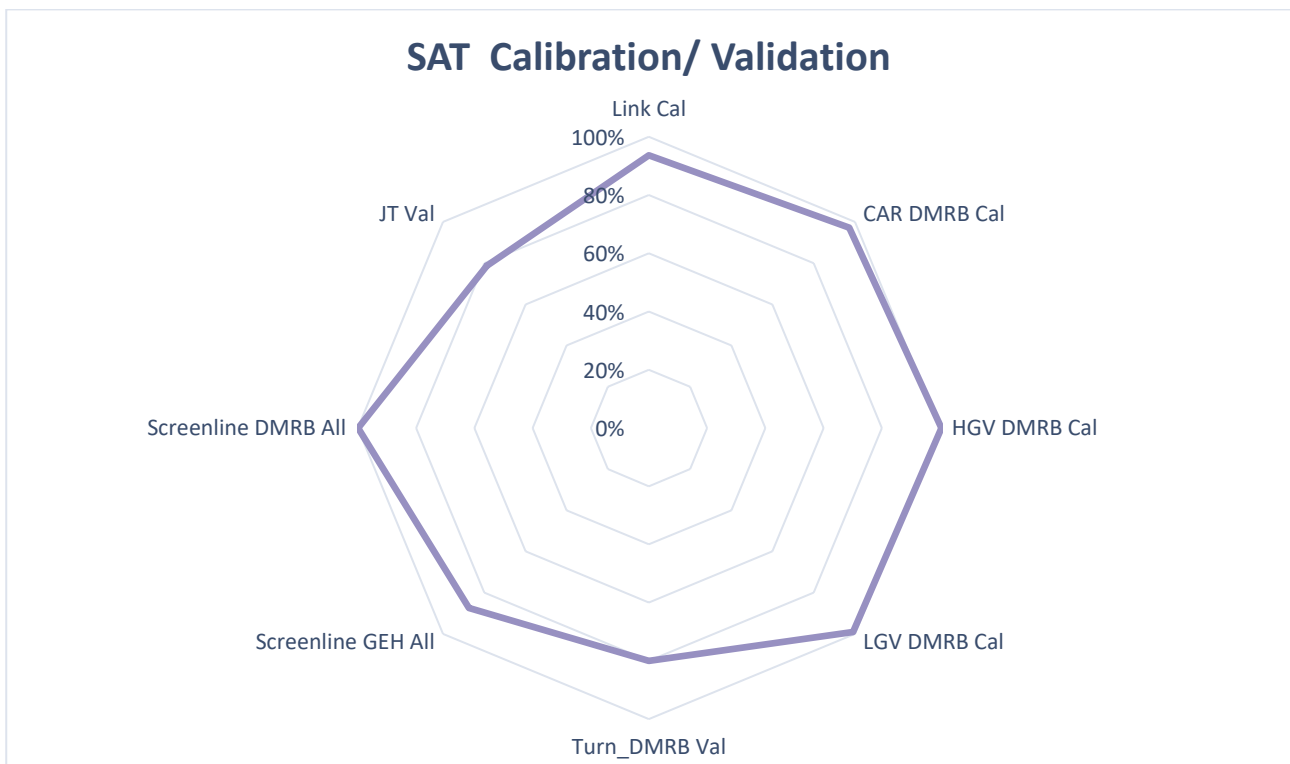


Figure 2-8: Saturday Peak Calibration/Validation

2.7.2 Public Transport

2.7.2.1 Bus

Bus journey times in the 2023 model have been represented as a function of highway link speeds and dwell times at bus stops. Comparisons between modelled and observed journey times for the AM peak are presented in **Table 2-4**.

Route	Between	Observed (min)	Outbound (min)		Return (min)	
			Modelled	% Diff	Modelled	% Diff
100	Basildon to Lakeside	47-52	52	11%	55	7%
11	Purfleet-on-Thames to Basildon	94-97	97	3%	98	1%
200	Basildon to Grays	50-51	55	7%	53	6%
22	Grays to Aveley	43-47	42	-2%	43	-8%
25	Purfleet to Kingsman Drive	38-42	32	-23%	33	-13%
265	Bulphan via West Horndon to Grays	33-42	25	-40%	25	-24%
269	Grays to Brentwood	57	59	4%	57	1%
32	Aveley to Purfleet-on-Thames	25-35	32	28%	32	-8%
33	Chafford Hundred Stn to Grays	20-21	21	6%	21	1%
347	Romford to Ockendon Station	45	29	-35%	29	-35%
370	Mercury Gardens to Lakeside	49	42	-15%	42	-13%
372	Lakeside Bus Station to Hornchurch Town Centre	48	33	-32%	29	-39%
374	Grays to Basildon	71-73	63	-11%	60	-18%
44	Grays to Lakeside	29-32	27	-8%	30	-6%
51	Chafford Hundred to Prittlewell	90	66	-27%	64	-29%
565	Brentwood to Herongate Bulphan	29	20	-30%	20	-30%
66	Lakeside to Chadwell St Mary	38-39	35	-8%	34	-12%
73	Lakeside to Tilbury	28-35	33	19%	34	-4%
73A	Lakeside to Tilbury via Brentwood Road Estate	44-45	44	0%	49	9%
83	Chadwell St Mary to Lakeside	32-34	23	-29%	25	-26%
88	Stifford Clays to Grays	24	18	-24%	18	-25%
88A	Lakeside to Socketts Heath	26	19	-27%	19	-27%
99	Asda, Tilbury to Tilbury Ferry, via Tilbury Station	12-13	10	-21%	9	-24%
X80	Bluewater via Lakeside to Chafford Hundred	25	15	-39%	17	-34%
Z1	Amazon Tilbury via Lakeside to Aveley	67-68	59	-13%	59	-13%
Z4	Pitsea to Tilbury	40-45	44	-2%	44	11%

Table 2-4: Bus Bi-Directional Services Journey Time Calibration

2.7.2.2 Rail

Table 2-5 shows the observed versus modelled boardings at key railway stations within the ADM for all time periods. Dark green indicates locations where TAG criteria are met, while light green represents stations with fewer than 150 boardings. The red highlight indicates failure.

Site	Observed				Modelled				Difference				% Difference			
	AM	IP	PM	SAT	AM	IP	PM	SAT	AM	IP	PM	SAT	AM	IP	PM	SAT
Site 32 - Chafford Hundred Station	446	207	204	281	378	243	214	432	-68	36	10	151	-15%	17%	5%	18%
Site 33 - Grays Station	606	288	919	378	878	379	714	569	272	91	-205	191	45%	32%	-22%	17%

Site 34 - Ockendon Station	281	58	70	106	257	215	111	212	-24	157	41	106	-9%	271 %	59%	33%
Site 35 - Tilbury Town Station	245	97	159	117	261	188	215	281	16	91	56	164	7%	94%	35%	47%
Site 36 - Stanford-le-Hope Station	249	78	91	122	251	110	105	165	2	32	14	43	1%	41%	15%	12%

Table 2-5: Railway Station Boardings

Table 2-6 shows the observed versus modelled alighting at key railway stations within ADM for all time periods.

Site	Observed				Modelled				Difference				% Difference			
	AM	IP	PM	SAT	AM	IP	PM	SAT	AM	IP	PM	SAT	AM	IP	PM	SAT
Site 32 - Chafford Hundred Station	134	338	457	180	105	191	373	253	-29	-147	-84	73	-22%	-43%	-18%	14%
Site 33 - Grays Station	699	499	399	325	906	354	557	545	207	-145	158	220	30%	-29%	40%	22%
Site 34 - Ockendon Station	40	103	355	54	45	93	336	109	5	-10	-19	55	13%	-10%	-5%	34%
Site 35 - Tilbury Town Station	114	167	294	62	187	164	280	188	73	-3	-14	126	64%	-2%	-5%	67%
Site 36 - Stanford-le-Hope Station	104	128	275	64	135	86	276	108	31	-42	1	44	30%	-33%	0%	23%

Table 2-6: Railway Station Alightings

2.8 Software

SATURN v11.6.3E was used to develop the highway forecast scenarios. EMME 2500.01 was used to develop the PT forecast scenarios. The base SATURN model was rerun in this version and the difference in outputs was insignificant.

3 Forecasting Approach

3.1 Overview of the Forecast Methodology

The forecasting methodology adopted in this study follows guidance set out in TAG Unit M4: Forecasting and Uncertainty. The fundamental steps for forecasting are:

- Development of forecast year demand matrices
- Incorporation of future network changes
- Assignment of forecast demand to future network

A visual overview of the forecast approach for this project is displayed in **Figure 3-1**.

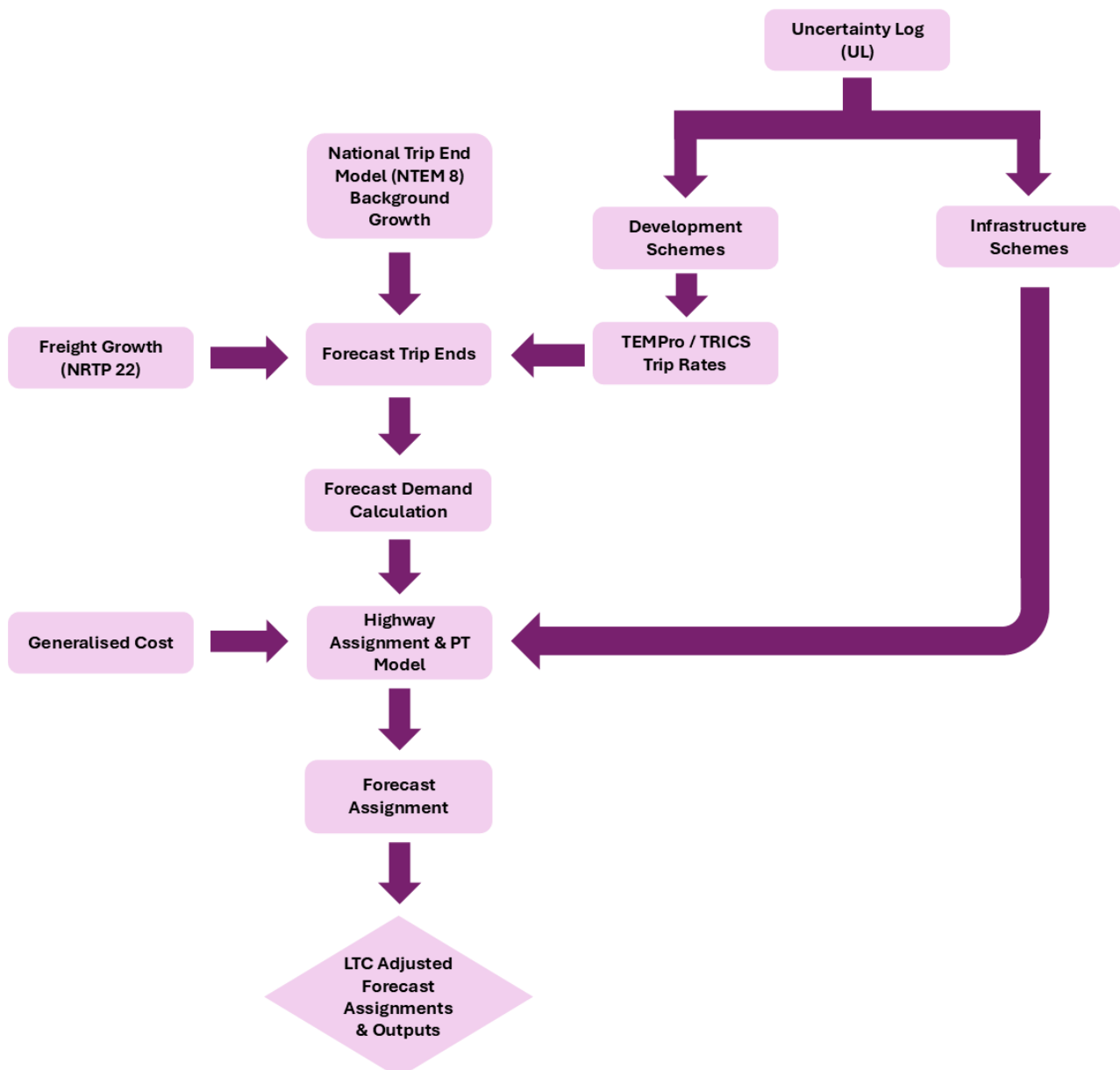


Figure 3-1: Flowchart of Forecast Approach

For forecast scenarios with and without Thurrock Local Plan (LP), the methodology is:

- Background growth for zones outside of Thurrock calculated using TEMPro 8.1 (NTEM 8) for Car and Public Transport for both with & without LP scenarios

- Background growth (alternative assumptions) for zones within Thurrock (excluding Housing & Employment) calculated using TEMPro 8.1 (NTEM 8) for Car and Public Transport for both with & without LP scenarios, this accounts for other drivers of growth
- For the Local Plan scenario, additional demand for Thurrock was calculated, TEMPro trip rates were applied for both employment and residential developments with fewer than 850 dwellings. TEMPro provides average trip rates at the MSOA level, reflecting local travel characteristics. The trip rates were applied to each development based on the corresponding TEMPro zone in which the site is located.
- TRICS was used to attribute trips, to both with and without Local Plan scenarios, for residential developments above 850 dwellings. Trip rates were influenced by proximity to the Public Transport network. This approach provided more accurate trip rates for the larger residential developments. TRICS trip rates were adjusted to account for post Covid reductions in trips.
- National Road Traffic Projections (NRTP) 2022 was used for deriving freight background growth
- Information provided for Tilbury 3 was used for specific HGV port growth
- The trip distribution uses the zone the development is located within for developments captured within the modelled zone.
- Developments with more than 850 dwellings were modelled as individual zones.
- Developments modelled as individual zones, are located in areas with comparable land use characteristics and therefore we use the trip distribution from the original zones in which the developments are located. However, given the large scale of developments in the West Horndon area, more than one zone was considered for the trip distribution to ensure that no unrealistic OD patterns are generated. This is added only to the with LP scenario demand growth.
- The combined demand growth was used to create trip ends for both with and without Local Plan scenarios
- Furnessing is applied to ensure balanced distribution of trip ends for both with and without Local Plan scenarios
- Generalised costs were updated based on TAG Data Book V1.24
- After the Forecast Highway Assignment, review of the Lower Thames Crossing (LTC) traffic flows is carried out to ensure any changes in demand between the Lower Thames Area Model (LTAM) for with and without Lower Thames Crossing (LTC) are reflected in the TSTM assignment.

3.2 Forecast Year

The forecast year selected for this study is 2044. The year 2044 marks the final year of the Local Plan period, encompassing the long-term developments. Where any build out was beyond 2044, the full number of dwellings/units has been captured within the 2044 LP scenarios.

3.3 Forecast Scenarios

Scenarios have been developed for with and without the Local Plan. This approach enables a clear comparison of the impacts directly related to the Local Plan proposals, such as housing and employment growth. The "without Local Plan" reference case scenario reflects committed development and infrastructure only, while the "with Local Plan" scenario also includes all proposed local plan developments. Comparing the two scenarios is essential for understanding the scale of additional transport demand generated by the Local Plan and for identifying any mitigation measures required to support sustainable growth. Hence, the model has 2 different scenarios listed as follows:

1. 2044 without Local Plan
2. 2044 with Local Plan

Each forecast scenario will be assessed across the four time periods: morning peak, inter peak, evening peak, and Saturday peak. The peak hours for the TSTM HAM are as follows:

- the morning peak hour from 08:00 to 09:00,

- the evening peak hour from 17:00 to 18:00,
- an average inter-peak hour between 10:00 and 16:00, and
- the Saturday peak hour between 12:00 to 13:00.

For the PT model, the defined peak periods are as follows:

- AM peak from 07:00–10:00,
- Interpeak from 10:00–16:00,
- PM peak from 16:00–19:00, and
- Saturday peak from 11:00–14:00.

3.4 Uncertainty Log

The Uncertainty Log (UL) provided by Thurrock Council is based on the spatial plan for planned developments within the area, utilising the Local Authority's planning data for housing and employment growth.

The Uncertainty Log provides key information about:

- The record of completed and demolished developments from 2023 onwards, detailing their location and scale
- Details of committed developments, including their site locations, proposed land use, and proposed size (e.g., number of residential dwellings or commercial floorspace)
- Specifications of site access for planned developments, along with any modifications to the existing transport network needed to facilitate access
- A summary of committed transport infrastructure projects, such as major junction improvements, new links, or other existing network changes such as speed limit reductions

As part of the development of the TSTM 2044 without local plan scenario, all development and infrastructure schemes recorded within the UL as “Near Certain” or “More than likely” were incorporated. For the 2044 with local plan scenario, Thurrock Council confirmed which sites should be included in the modelling scenarios as part of the emerging Local Plan. Thurrock Council advised that all entries in the log be included in full, therefore, the data was used as provided, without applying adjustments.

The Uncertainty Log (UL) was prepared in accordance with TAG Unit M4: Forecasting and Uncertainty. The probability of a development was categorised as described in **Table 3-1** below.

Probability	Status	Core Scenario Assumption
Near certain: The outcome will happen or there is a high probability that it will happen.	Intent announced by proponent to regulatory agencies. Approved development proposals. Projects under construction.	This should form part of the core scenario.
More than likely: The outcome is likely to happen but there is some uncertainty.	Submission of planning or consent application imminent. Development application within the consent process.	This could form part of the core scenario.
Reasonably foreseeable: The outcome may happen, but there is significant uncertainty.	Identified within a development plan. Not directly associated with the transport strategy/ scheme but may occur if the strategy/scheme	These should be excluded from the core scenario but may form part of the alternative scenarios.

	is implemented. Development conditional upon the transport strategy/scheme proceeding. Or, a committed policy goal, subject to tests (e.g., of deliverability) whose outcomes are subject to significant uncertainty	
Hypothetical: There is considerable uncertainty whether the outcome will ever happen.	Conjecture based upon currently available information. Discussed on a conceptual basis. One of a number of possible inputs in an initial consultation process. Or a policy aspiration.	These should be excluded from the core scenario but may form part of the alternative scenarios.

Table 3-1: Classification of Future Inputs (TAG Unit M4, Table A2)

Table 3-2 compares the projected increase in the number of Households and Jobs from the UL provided by Thurrock Council with the equivalent numbers from TEMPro (i.e. the National Trip End Model version 8 (NTEM 8)). It is evident that Thurrock Council's emerging Local Plan sets out a clear vision for future growth. The difference is due to the number of dwellings and jobs added by the local plan. As such, the development of forecast scenarios is a crucial step in understanding the potential impacts of that travel growth on the transport network and identifying any mitigation measures that may be required for future scenarios. It is noted that growth within Thurrock is not constrained to TEMPro to understand the impact of expected growth related to the Local Plan.

Growth Within Thurrock (2023 - 2044)			
Uncertainty Log		NTEM 8	
Forecasted Dwellings	Forecasted Jobs	Forecasted Dwellings	Forecasted Jobs
33,645	16,795	11,789	3,640

Table 3-2: Growth within Thurrock (2023-2044)

Figure 3-2 to Figure 3-5 illustrate the committed and Local Plan residential and employment developments captured from the UL, respectively, along with their corresponding locations.

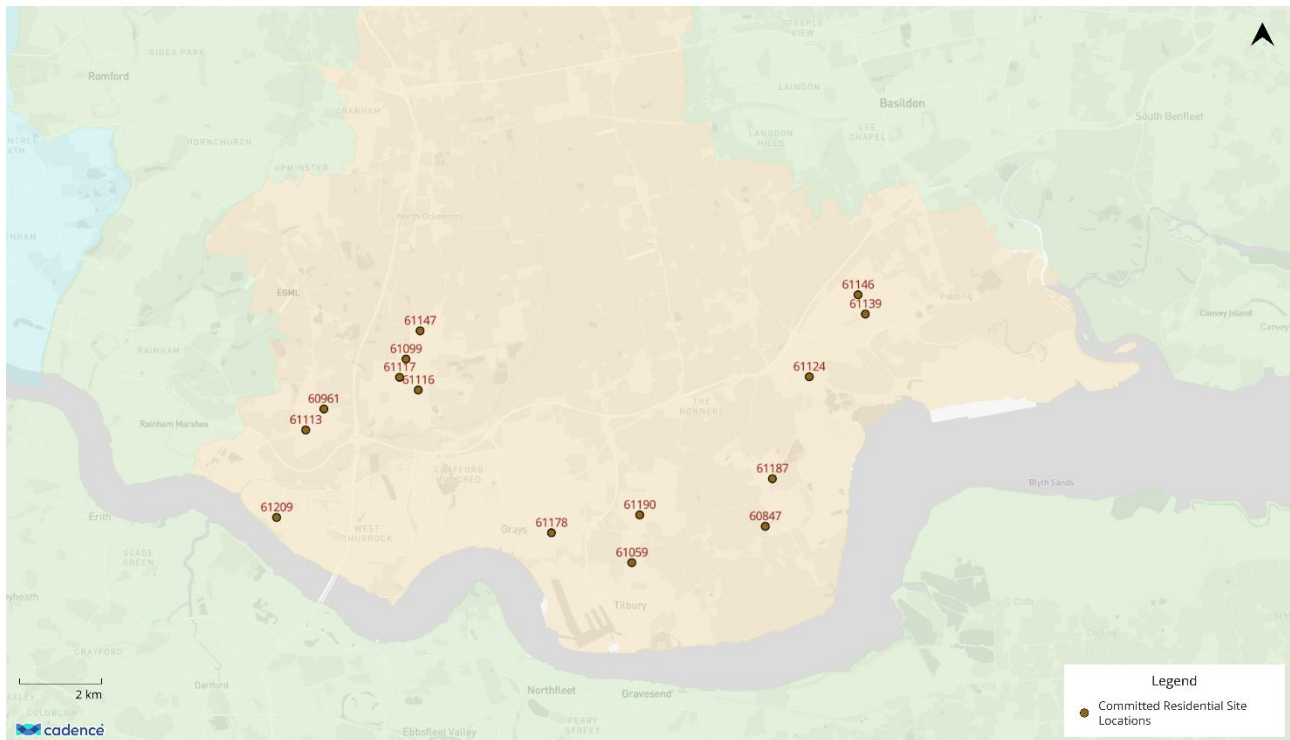


Figure 3-2: Committed Residential Site Locations (in the Without Local Plan Scenario)

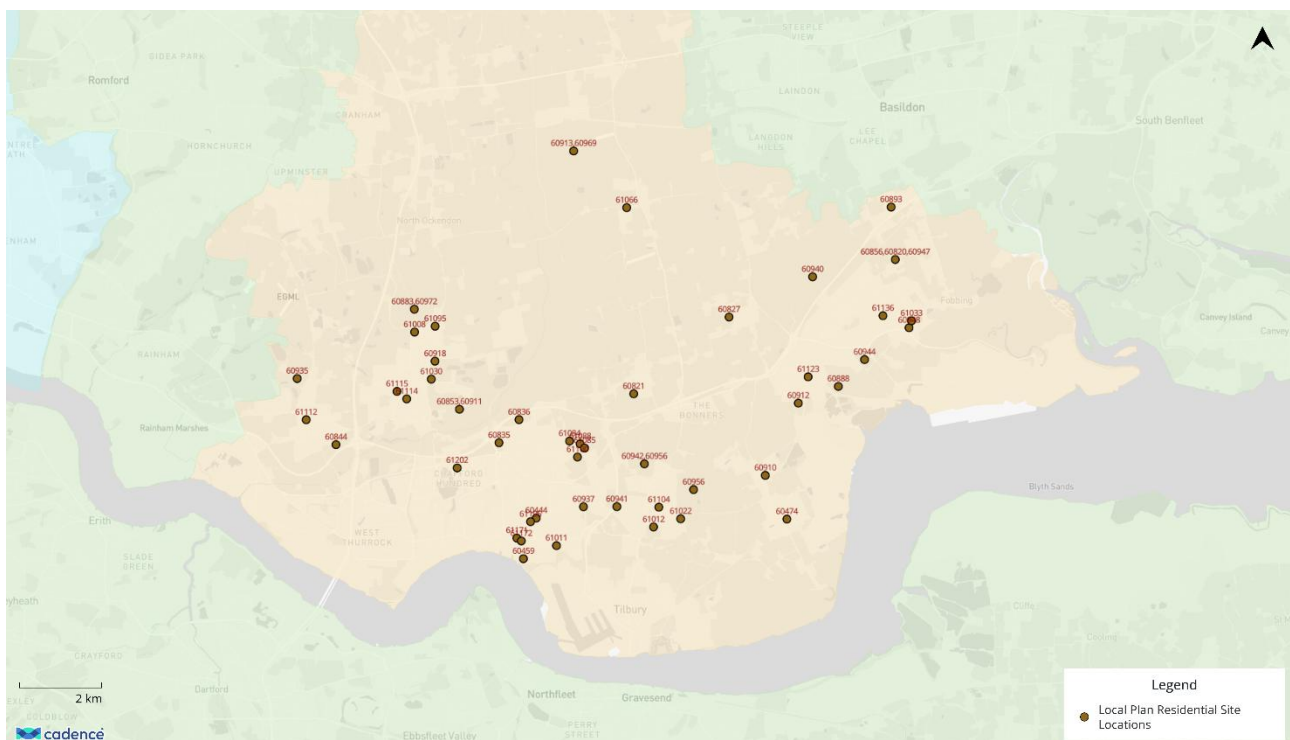


Figure 3-3: Local Plan Residential Site Locations (in the With Local Plan Scenario in addition to committed developments)

The associated dwelling figures are displayed in **Appendix A – Uncertainty Log for Housing developments and Associated Dwell**.

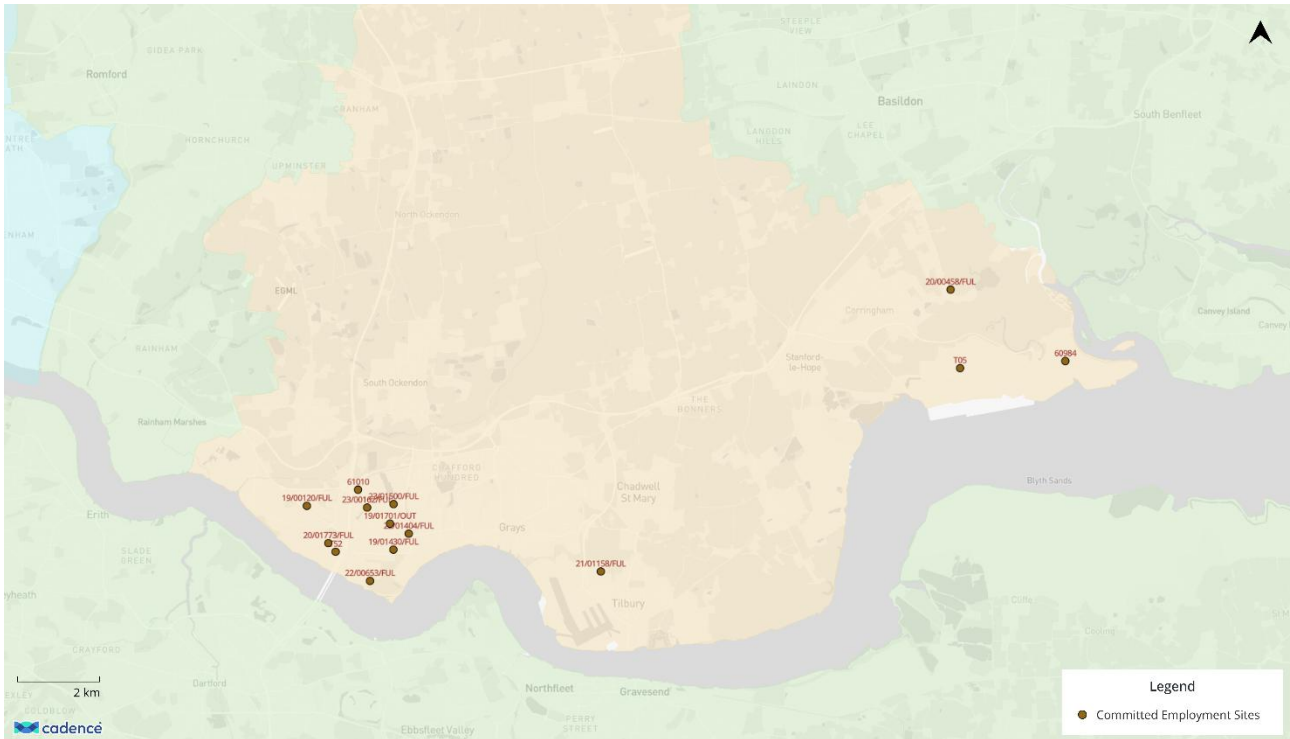


Figure 3-4: Committed Employment Site Locations (in the Without Local Plan Scenario)

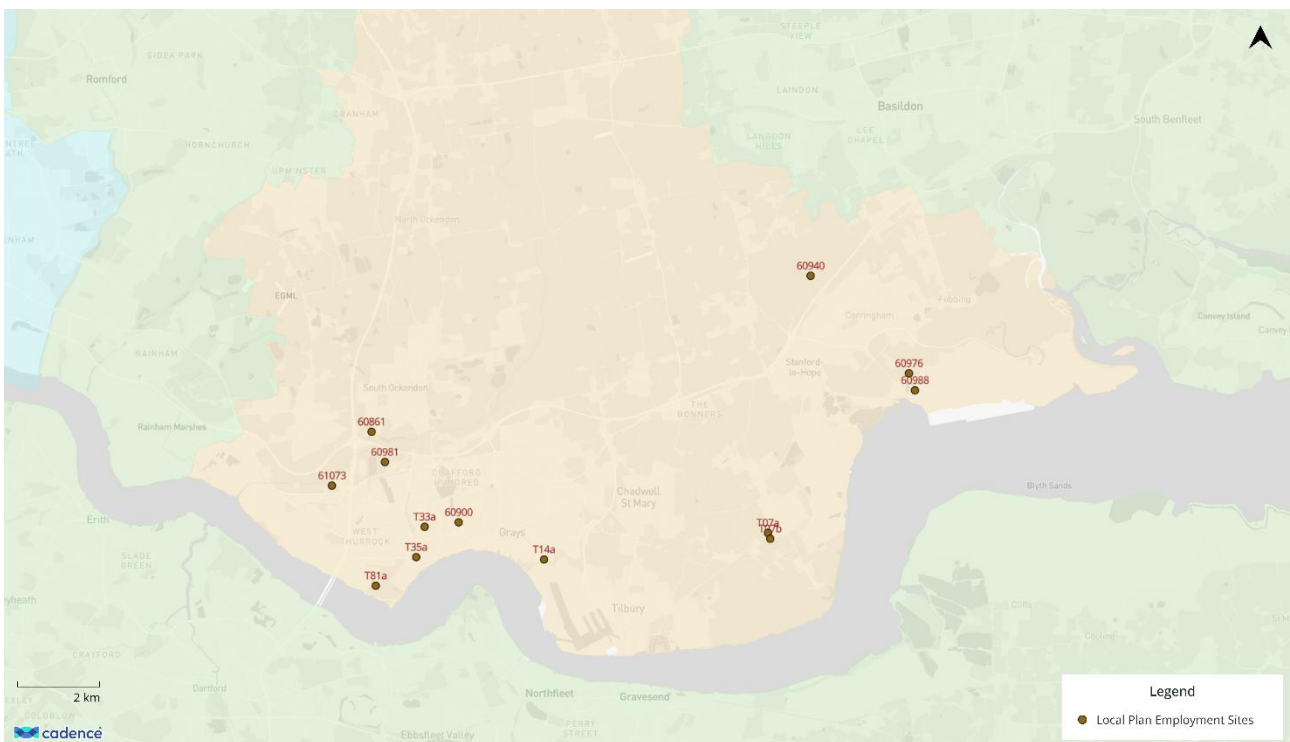


Figure 3-5: Local Plan Employment Site Locations (in the With Local Plan Scenario in addition to Committed developments)

The associated job figures are shown in **Appendix B – Uncertainty Log for Employment Developments and associated Job Figures**.

4 Forecast Demand

4.1 Introduction

This chapter summarises the approach taken to derive the forecast growth in travel demand for the forecast year scenarios.

4.2 Methodology

The demand trip matrices for the forecast year 2044 were generated from the key elements listed:

1. Trip generation from developments within the UL
2. Socio-economic growth trends for the year 2044 within Thurrock using alternative assumptions from TEMPro
3. Traffic growth for the year 2044 outside Thurrock
4. HGV/LGV growth from NRTF22

Trips generated by planned developments were identified from the Uncertainty Log, assigned to their corresponding model zones, and subjected to trip generation using the extracted trip rates, as detailed in the following sections. Background growth for car trips was derived using the NTEM growth factors extracted from TEMPro v8.1, while goods vehicle growth was obtained from NRTF22, which provides freight growth factors. The combined growth from both development-related trips and background traffic was applied to the AM Peak, Inter-Peak, PM Peak, and Saturday Peak Hour OD demand matrices through a furnishing process to produce the final 2044 forecast demand matrices.

4.3 Forecasting Residential Developments within Thurrock

4.3.1 Developments

The residential developments provided by Thurrock Council were categorised into two groups based on their scale. Larger sites were assessed using trip rates derived from TRICS, allowing for a detailed estimation of trip ends informed by PT accessibility scores. In contrast, smaller sites were evaluated using trip rates extracted from TEMPro, which were applied to estimate future trip generation.

4.3.2 TRICs Database Trip Rates

The TRICS database was used to obtain trip rates for residential developments that have more than 850 dwellings. TRICS trip rates were used for a more detailed analysis of these residential sites, as they provide more accurate and locally representative trip generation estimates based on the level of public transport accessibility for the developments. This approach also supports later stages of assessment, where public transport mode shares can be considered as part of potential mitigation measures.

The extracted TRICs trip rates for car and PT modes are presented in **Table 4-1** and **Table 4-2**. The trip rates vary according to the different PT Accessibility Scores. As expected, developments with higher PT accessibility scores exhibit lower car trip rates and higher public transport trip rates. The PT accessibility scores for the various developments were determined by Arup through detailed research, considering each site's location and level of connectivity. Arup provided mode specific (Bus and Rail) PT trip rates for the AM and PM peaks, and all mode PT OD trip rates for all time periods. The mode specific trip rates were used in the AM and PM peaks, with the all mode trip rates applied to all other periods.

Car									
PT Scores		AM		IP		PM		SAT	
		O	D	O	D	O	D	O	D
Existing Good Access to PT	2	0.173	0.041	0.066	0.067	0.088	0.172	0.085	0.090
Close to PT	1	0.205	0.057	0.095	0.089	0.085	0.222	0.125	0.08
Isolated Sites	0	0.242	0.077	0.12	0.11	0.11	0.27	0.13	0.09

Table 4-1: Car Trip Rates for Housing – TRICS

PT									
PT Scores		AM		IP		PM		SAT	
		O	D	O	D	O	D	O	D
Existing Good Access to PT	2	0.083	0.005	0.02	0.031	0.015	0.069	0.022	0.034
Close to PT	1	0.036	0.002	0.011	0.008	0.009	0.047	0.008	0.009
Isolated Sites	0	0.006	0.002	0.004	0.004	0.005	0.002	0.004	0.004

PT									
PT Score		AM				PM			
		Bus Coach		Rail		Bus Coach		Rail	
		O	D	O	D	O	D	O	D
Existing Good Access to PT	2	0.016	0.004	0.194	0.044	0.1	0.016	0.1	0.163
Close to PT	1	0.044	0.01	0.086	0.02	0.024	0.039	0.048	0.078
Isolated Sites	0	0.048	0.011	0.046	0.01	0.026	0.043	0.027	0.044

Table 4-2: PT Trip Rates for Housing – TRICS

4.3.3 Large Development Car Trip Ends

Table 4-3 details information about the local plan developments to which TRICS trip rates were applied.

Zone ID	Site Name	Dwellings
60844	Land south of Aveley	600
60956	Land east of Chadwell St Mary	2,000
60856	Land to the north east of Corringham	2,000
61171	Grays Shopping Centre, High Street, Grays	600
60853	Land south east of South Ockendon	2,000
60972/60883	Land north of South Ockendon	2,000
60888	Land at Wharf Road, Stanford le Hope	300
60913	West Horndon	10,000
60956	Land west of Brentwood Road, Chadwell St Mary	900
60893	Corringham Park Farm	1,000
60940	Land north of Stanford le Hope / Lower Langdon	4,000
60847	Land west of East Tilbury	830
61209	Purfleet on Thames Regeneration	3,000

Table 4-3: Large Developments IDs, Names, and Number of Dwellings

The origin and destination car trip generation from large developments are depicted in **Figure 4-1** and **Figure 4-2**. Evidently, Zone 60913 (West Horndon) dominates, producing the highest volumes across all time periods. This indicates a major development site with substantial two-way trip activity. Other zones, such as 61209 (Purfleet Centre), 60940 (Lower Langdon), 60956 (Land east of Chadwell

St Mary), 60856 (Land to the Northeast of Corringham), 60853 (Land Southeast of South Ockendon), 60972/60883 (Land North of South Ockendon), also produce notable trip ends but remain significantly below that of Zone 60913 (West Horndon). Overall, the distribution highlights zones that will have an impact on network loading and may therefore require attention when assessing future year traffic impacts and mitigation requirements.

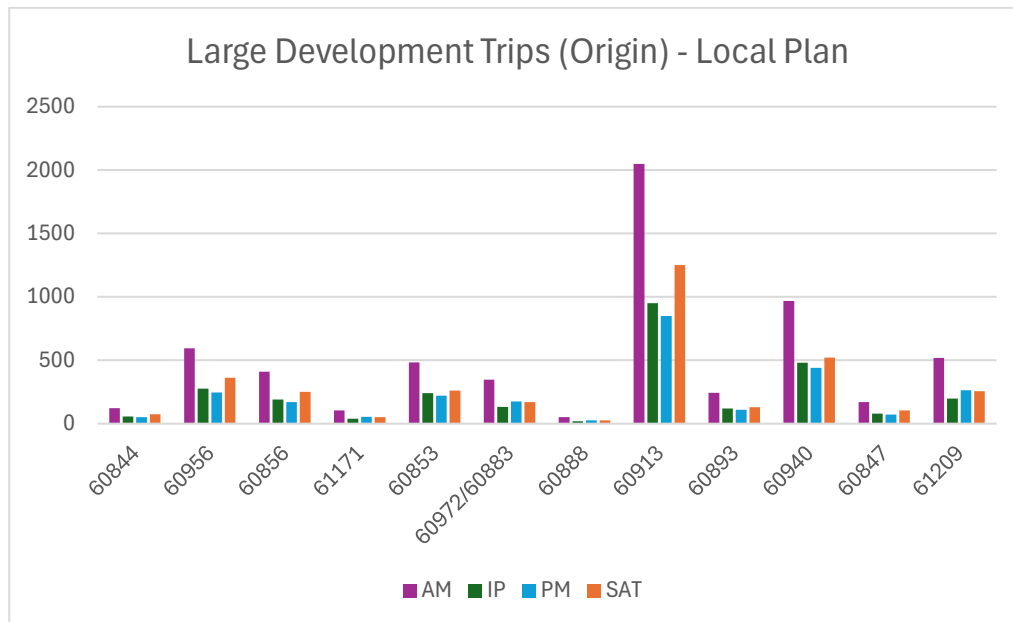


Figure 4-1: Large Residential Development Trip Ends (Origin)

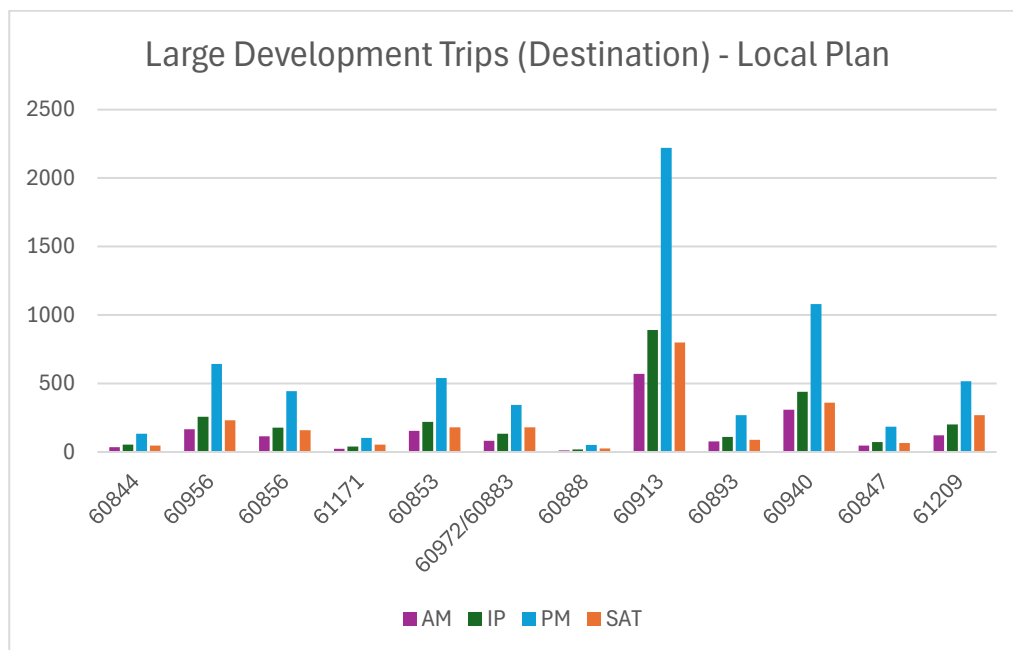


Figure 4-2: Large Residential Trip Ends (Destination)

The locations of these new developments are illustrated in **Figure 4-3**.

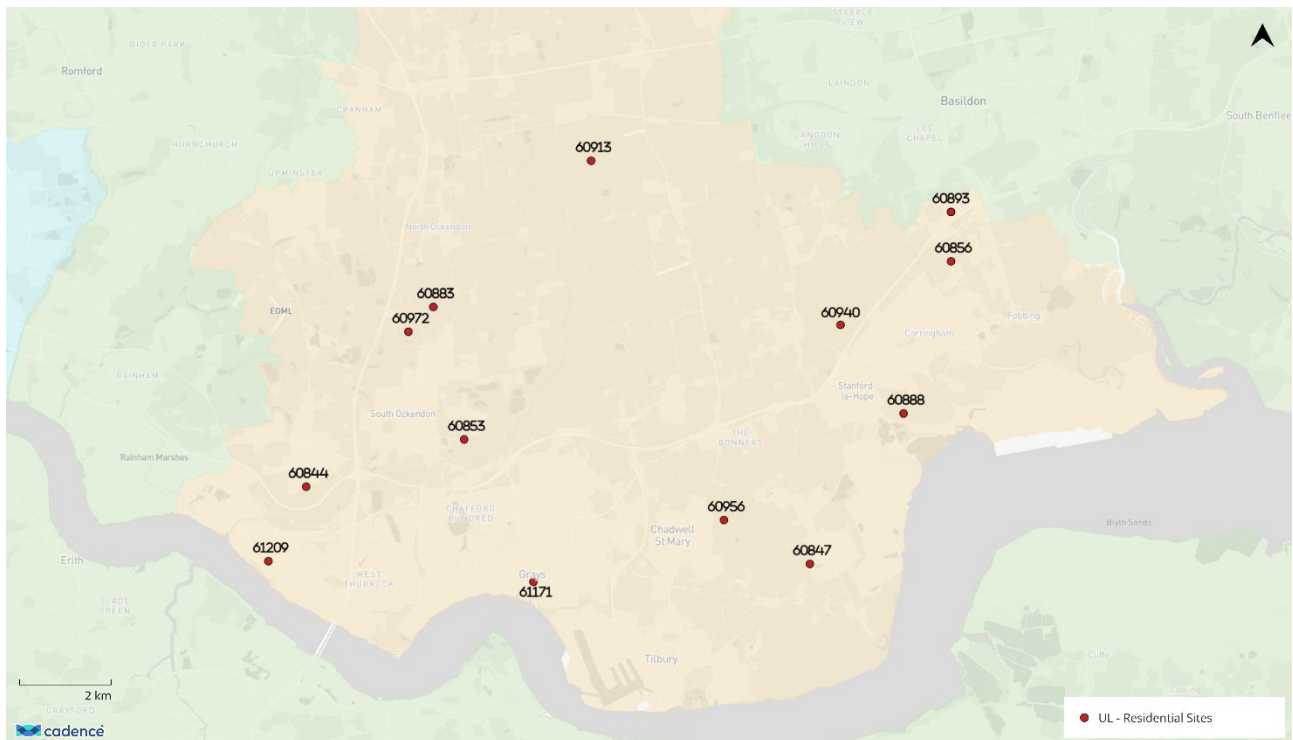


Figure 4-3: Large Residential Development Locations

4.3.4 TEMPro Trip Rates

TEMPro was used to derive residential trip rates at MSOA level. For each MSOA, the alternative assumptions for growth in households and jobs within Thurrock for the 2044 forecast year were held constant except for the targeted MSOA, which was assumed to increase by 1,000 additional households from the base year. Trip end outputs for the future year were compared against the base years to isolate the change in origin and destination trip ends across different modes (Car Driver, Bus, and Rail) attributable to the additional households in that MSOA. The resulting increased in trip ends was then divided by 1,000 to obtain a set of residential trip ends per dwelling. This process was repeated individually for each MSOA, and the Car and PT trip rates results for each MSOA can be found in **Table 4-4** and **Table 4-5**.

MSOA Code	MSOA Name	AM		IP		PM		Saturday	
		Car Driver		Car Driver		Car Driver		Car Driver	
		O	D	O	D	O	D	O	D
E02003296	Thurrock 001	0.217	0.027	0.087	0.094	0.066	0.186	0.087	0.094
E02003297	Thurrock 002	0.172	0.023	0.076	0.081	0.061	0.163	0.076	0.081
E02003298	Thurrock 003	0.178	0.023	0.076	0.082	0.062	0.168	0.076	0.082
E02003299	Thurrock 004	0.227	0.028	0.088	0.096	0.068	0.203	0.088	0.096
E02003300	Thurrock 005	0.187	0.024	0.074	0.081	0.063	0.175	0.074	0.081
E02003301	Thurrock 006	0.160	0.021	0.070	0.074	0.059	0.157	0.070	0.074
E02003302	Thurrock 007	0.145	0.019	0.064	0.068	0.054	0.143	0.064	0.068
E02003303	Thurrock 008	0.172	0.021	0.069	0.075	0.057	0.162	0.069	0.075
E02003304	Thurrock 009	0.176	0.023	0.076	0.082	0.062	0.167	0.076	0.082
E02003305	Thurrock 010	0.174	0.024	0.078	0.084	0.064	0.174	0.078	0.084
E02003307	Thurrock 012	0.159	0.021	0.072	0.077	0.057	0.153	0.072	0.077
E02003308	Thurrock 013	0.208	0.001	0.079	0.087	0.062	0.188	0.079	0.087
E02003309	Thurrock 014	0.188	0.024	0.075	0.082	0.064	0.176	0.075	0.082
E02003310	Thurrock 015	0.169	0.033	0.071	0.080	0.068	0.163	0.071	0.080
E02003311	Thurrock 016	0.168	0.022	0.067	0.073	0.060	0.280	0.067	0.073
E02003312	Thurrock 017	0.129	0.017	0.050	0.056	0.047	0.124	0.050	0.056
E02003313	Thurrock 018	0.149	0.022	0.065	0.070	0.056	0.143	0.065	0.070
E02006859	Thurrock 019	0.198	0.023	0.066	0.076	0.065	0.185	0.066	0.076
E02006926	Thurrock 020	0.213	0.025	0.075	0.084	0.068	0.197	0.075	0.084

Table 4-4: Housing – Car TEMPro Trip Rates

MSOA Code	MSOA Name	AM				IP				PM				SAT			
		Bus		Rail		Bus		Rail		Bus		Rail		Bus		Rail	
		O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D
E02003296	Thurrock 001	0.023	0.004	0.007	0.001	0.007	0.010	0.002	0.002	0.003	0.013	0.001	0.006	0.007	0.010	0.002	0.002
E02003297	Thurrock 002	0.020	0.003	0.009	0.001	0.011	0.012	0.002	0.003	0.004	0.016	0.001	0.007	0.011	0.012	0.002	0.003
E02003298	Thurrock 003	0.019	0.003	0.009	0.001	0.011	0.012	0.002	0.003	0.004	0.015	0.001	0.008	0.011	0.012	0.002	0.003
E02003299	Thurrock 004	0.022	0.004	0.007	0.001	0.005	0.009	0.002	0.002	0.002	0.012	0.001	0.006	0.005	0.009	0.002	0.002
E02003300	Thurrock 005	0.017	0.002	0.010	0.001	0.009	0.010	0.002	0.003	0.003	0.014	0.001	0.008	0.009	0.010	0.002	0.003
E02003301	Thurrock 006	0.017	0.002	0.007	0.001	0.008	0.010	0.002	0.002	0.003	0.013	0.001	0.006	0.008	0.010	0.002	0.002
E02003302	Thurrock 007	0.019	0.002	0.007	0.001	0.010	0.011	0.002	0.002	0.003	0.014	0.001	0.006	0.010	0.011	0.002	0.002
E02003303	Thurrock 008	0.023	0.004	0.009	0.001	0.009	0.011	0.003	0.003	0.003	0.015	0.001	0.008	0.009	0.011	0.003	0.003
E02003304	Thurrock 009	0.022	0.003	0.010	0.001	0.012	0.013	0.002	0.003	0.004	0.017	0.001	0.008	0.012	0.013	0.002	0.003
E02003305	Thurrock 010	0.018	0.003	0.009	0.001	0.010	0.011	0.002	0.003	0.003	0.015	0.001	0.008	0.010	0.011	0.002	0.003
E02003307	Thurrock 012	0.021	0.003	0.009	0.001	0.012	0.013	0.002	0.003	0.004	0.017	0.001	0.007	0.012	0.013	0.002	0.003
E02003308	Thurrock 013	0.027	0.004	0.008	0.001	0.007	0.011	0.002	0.003	0.003	0.015	0.001	0.007	0.007	0.011	0.002	0.003
E02003309	Thurrock 014	0.019	0.002	0.001	0.000	0.010	0.011	0.002	0.003	0.003	0.015	0.001	0.008	0.010	0.011	0.002	0.003
E02003310	Thurrock 015	0.020	0.002	0.011	0.000	0.005	0.006	0.002	0.002	0.000	0.014	0.001	0.008	0.005	0.006	0.002	0.002
E02003311	Thurrock 016	0.024	0.003	0.011	0.000	0.011	0.013	0.002	0.003	0.004	0.019	0.001	0.009	0.011	0.013	0.002	0.003
E02003312	Thurrock 017	0.022	0.003	0.010	0.000	0.010	0.011	0.002	0.003	0.004	0.017	0.001	0.008	0.010	0.011	0.002	0.003
E02003313	Thurrock 018	0.025	0.004	0.010	0.001	0.014	0.015	0.003	0.003	0.005	0.020	0.001	0.008	0.014	0.015	0.003	0.003
E02006859	Thurrock 019	0.023	0.002	0.013	0.001	0.008	0.010	0.002	0.003	0.003	0.016	0.001	0.010	0.008	0.010	0.002	0.003
E02006926	Thurrock 020	0.020	0.003	0.011	0.001	0.007	0.009	0.002	0.003	0.003	0.014	0.001	0.009	0.007	0.009	0.002	0.003

Table 4-5: Housing – PT TEMPro Trip Rates

4.4 Forecasting Employment Developments within Thurrock

4.4.1 Employment Factors

The employment developments listed in the UL were provided based on the net area allocated for each one of the developments. Before applying the factors from the employment density guide (2010) to convert from squared meters to jobs, factors displayed in **Table 4-6** were used to convert the net area to Gross Floor Area (GFA).

Net to GFA		
Land Use	FAR (Floor Area Ratio) Range	Value Used
Office Business Park	1.5 - 2.5	1.5
Office Town Centre	2.0 - 4.0	2
Town centre commercial/mixed use	2.0 – 3.0	2
Industrial/warehousing	0.3 – 0.5	0.3
Institutional (schools/hospitals)	0.3 – 0.5	0.3
Commercial Low rise	1.5 - 2	1.5

Table 4-6: Net Area to Gross Floor Area Factors

Furthermore, the factors displayed in **Table 4-7** were utilised to convert between GFA to Net Internal Area (NIA) and Gross Internal Area (GIA) for industrial and office developments to ensure consistency with the floor area definitions and unit basis recommended in the Employment Density Guide (2010).

Area	Factor
GFA to GIA	0.9
GFA to NIA	0.82

Table 4-7: GFA to GIA/NIA Factors

The values in **Table 4-8** were used to convert the areas to number of jobs for each development based on its use type.

Use Type	Area per Full-Time Equivalent (m ²)	Floor Area Basis
Industrial	25	GIA
Warehouse	70	GFA
Office	12	NIA
B2/B8	30.2	GFA

Table 4-8: Employment Density Guide Area Conversion Factor

4.4.2 TEMPro Trip Rates

A similar methodology to that described in Section 4.3.4 was applied to derive the employment trip rates; however, in this case the number of households was held constant while the number of jobs within the targeted MSOA was increased by 1,000. The results are tabulated in the tables below.

MSOA Code	MSOA Name	AM		IP		PM		Saturday	
		Car Driver		Car Driver		Car Driver		Car Driver	
		O	D	O	D	O	D	O	D
E02003296	Thurrock 001	0.027	0.147	0.053	0.038	0.120	0.024	0.053	0.038
E02003297	Thurrock 002	0.041	0.154	0.094	0.099	0.143	0.071	0.094	0.099
E02003298	Thurrock 003	0.050	0.183	0.081	0.056	0.133	0.032	0.081	0.056
E02003299	Thurrock 004	0.038	0.160	0.088	0.081	0.161	0.057	0.088	0.081
E02003300	Thurrock 005	0.040	0.166	0.079	0.069	0.138	0.046	0.079	0.069
E02003301	Thurrock 006	0.032	0.142	0.064	0.055	0.119	0.036	0.064	0.055
E02003302	Thurrock 007	0.046	0.173	0.089	0.077	0.139	0.048	0.089	0.077
E02003303	Thurrock 008	0.025	0.136	0.051	0.040	0.115	0.029	0.051	0.040
E02003304	Thurrock 009	0.038	0.163	0.083	0.075	0.141	0.046	0.083	0.075
E02003305	Thurrock 010	0.054	0.204	0.102	0.089	0.167	0.079	0.102	0.089
E02003307	Thurrock 012	0.045	0.162	0.085	0.078	0.132	0.049	0.085	0.078
E02003308	Thurrock 013	0.027	0.135	0.057	0.050	0.116	0.034	0.057	0.050
E02003309	Thurrock 014	0.045	0.175	0.083	0.068	0.139	0.042	0.083	0.068
E02003310	Thurrock 015	0.041	0.161	0.098	0.111	0.152	0.072	0.098	0.111
E02003311	Thurrock 016	0.034	0.141	0.067	0.061	0.121	0.041	0.067	0.061
E02003312	Thurrock 017	0.028	0.120	0.054	0.050	0.106	0.036	0.054	0.050
E02003313	Thurrock 018	0.030	0.135	0.054	0.048	0.117	0.033	0.054	0.048
E02006859	Thurrock 019	0.039	0.151	0.079	0.074	0.131	0.051	0.079	0.074
E02006926	Thurrock 020	0.039	0.153	0.081	0.075	0.133	0.052	0.081	0.075

Table 4-9: Employment – TEMPro Car Trip Rates

MSOA Code	MSOA Name	AM				IP				PM				SAT			
		Bus		Rail		Bus		Rail		Bus		Rail		Bus		Rail	
		O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D
E02003296	Thurrock 001	0.001	0.002	0.000	0.003	0.002	0.001	0.001	0.001	0.002	0.000	0.002	0.000	0.022	0.012	0.002	0.001
E02003297	Thurrock 002	0.003	0.016	0.001	0.006	0.020	0.019	0.004	0.004	0.018	0.005	0.006	0.003	0.092	0.084	0.020	0.019
E02003298	Thurrock 003	0.005	0.029	0.001	0.005	0.012	0.005	0.002	0.002	0.013	0.001	0.003	0.001	0.056	0.022	0.012	0.005
E02003299	Thurrock 004	0.001	0.006	0.002	0.005	0.010	0.010	0.006	0.007	0.012	0.004	0.010	0.005	0.075	0.085	0.010	0.010
E02003300	Thurrock 005	0.001	0.009	0.001	0.008	0.008	0.007	0.003	0.003	0.007	0.001	0.006	0.002	0.059	0.040	0.008	0.007
E02003301	Thurrock 006	0.002	0.016	0.001	0.007	0.011	0.009	0.002	0.002	0.012	0.002	0.005	0.001	0.049	0.033	0.011	0.009
E02003302	Thurrock 007	0.006	0.038	0.001	0.007	0.021	0.016	0.003	0.003	0.022	0.003	0.005	0.001	0.070	0.043	0.021	0.016
E02003303	Thurrock 008	0.001	0.004	0.000	0.006	0.003	0.002	0.002	0.002	0.004	0.001	0.004	0.001	0.023	0.018	0.003	0.002
E02003304	Thurrock 009	0.003	0.021	0.001	0.007	0.017	0.013	0.003	0.003	0.016	0.002	0.005	0.001	0.071	0.044	0.017	0.013
E02003305	Thurrock 010	0.005	0.026	0.001	0.006	0.015	0.012	0.003	0.003	0.017	0.007	0.005	0.004	0.110	0.079	0.015	0.012
E02003307	Thurrock 012	0.007	0.043	0.001	0.006	0.025	0.018	0.003	0.003	0.026	0.004	0.005	0.001	0.080	0.076	0.025	0.018
E02003308	Thurrock 013	0.001	0.004	0.001	0.008	0.005	0.004	0.002	0.003	0.004	0.001	0.005	0.001	0.036	0.028	0.005	0.004
E02003309	Thurrock 014	0.004	0.022	0.001	0.007	0.013	0.009	0.003	0.002	0.013	0.002	0.004	0.001	0.076	0.042	0.013	0.009
E02003310	Thurrock 015	0.002	0.018	0.001	0.010	0.023	0.026	0.004	0.005	0.022	0.005	0.008	0.002	0.079	0.083	0.023	0.026
E02003311	Thurrock 016	0.002	0.020	0.001	0.010	0.014	0.012	0.003	0.003	0.015	0.002	0.007	0.002	0.048	0.035	0.014	0.012
E02003312	Thurrock 017	0.001	0.016	0.001	0.010	0.012	0.011	0.003	0.003	0.014	0.003	0.007	0.002	0.044	0.038	0.012	0.011
E02003313	Thurrock 018	0.001	0.004	0.000	0.006	0.004	0.004	0.002	0.002	0.004	0.003	0.004	0.001	0.027	0.023	0.004	0.004
E02006859	Thurrock 019	0.006	0.038	0.002	0.018	0.023	0.018	0.006	0.008	0.025	0.006	0.013	0.005	0.093	0.069	0.023	0.018
E02006926	Thurrock 020	0.003	0.015	0.002	0.014	0.014	0.012	0.005	0.006	0.013	0.003	0.010	0.004	0.098	0.074	0.014	0.012

Table 4-10: Employment – PT TEMPro Trip Rates

4.5 Background Growth

4.5.1 Car and PT Growth

Background travel growth between 2023 and 2044 for both Car and Public Transport (Rail and Bus) demand was derived using TEMPro, which provides growth and planning data based on projected changes in population, employment, housing, and car ownership. Growth factors between 2023 and 2044 were extracted separately for zones within Thurrock and outside Thurrock (within the RFMA and external model area).

For zones within Thurrock, an alternative scenario was applied in which housing and employment growth were held constant between 2023 and 2044 (i.e. no change from the base year). This isolates the background travel growth between 2023 and 2044 which accounts for economic trends, demographic changes, and car-ownership, while excluding household and job growth. The changes in households and jobs are instead taken directly from the listed developments within the UL and allocated to the relevant zones based on the proposed development locations.

For zones outside Thurrock, no alternative assumptions were applied. TEMPro growth values were used directly, allowing full population, employment, housing, and car-ownership projections to be reflected in the wider RFMA and external area without adjustment.

This methodology was applied consistently for Car, Rail, and Bus growth, with all factors sourced from TEMPro for all respective peak hours between years 2023 and 2044. **Appendix C – TEMPro Background Growth Factors for Car and PT Within Thurrock (2023-2044)** presents the TEMPro growth factors for Car, Rail, and Bus demand for all zones within Thurrock, whereas **Appendix D - TEMPro Background Growth Factors for Car and PT Outside of Thurrock (2023 – 2044)** provides the corresponding growth factors for zones located outside Thurrock but within the RFMA and external model area.

4.5.2 LGV And HGV Growth Factors

HGV and LGV growth have been calculated using the NRTP22 report, which indicates a 24% increase in LGV trips between 2023 and 2044 and a 4.5% increase in HGV trips by 2044. In addition to these growth rates, for the with LP Scenario further adjustments have been made for Tilbury 3. Based on the Tilbury Assessment Report, additional HGV growth for sites in Tilbury has been considered, and the corresponding extra trips have been added to the Tilbury zone.

4.6 Lower Thames Crossing Induced Demand

The Lower Thames Crossing (LTC) is now confirmed as a committed scheme. Given its strategic importance and expected influence on traffic patterns, particularly on the M25 corridor and the existing M25 Thames River crossing at Dartford, it was necessary to account for scheme-related demand changes in our modelling. In the absence of a Variable Demand Model (VDM), an evidence-based approach was developed to reflect the likely behavioural responses associated with the LTC.

Drawing on outputs from the Combined Modelling and Appraisal Report (ComMA) for the A122 Lower Thames Crossing, the anticipated redistribution of trips within Thurrock is limited. The modelling indicates that most induced trips generated by the scheme, approximately 93%, occur between external zones in the wider network rather than within Thurrock. Consequently, the direct impact on local trip patterns in Thurrock is assessed to be minor.

To quantify and incorporate these effects, Select Link Analysis was undertaken on both the existing Dartford Crossing and the proposed LTC for each direction. This analysis provided an understanding of how flows reroute between the two crossings and informed the proportional adjustments required within our model.

Adjustment factors were applied to ensure that the level of induced demand in our transport model aligns with the assumptions and outputs of the LTC LTAM modelling. These factors were

differentiated by direction and vehicle class to accurately replicate the redistribution and growth patterns expected once the new crossing becomes operational.

Following the highway assignment, post-processing checks were carried out to confirm that the resulting flows across both crossings exhibit behaviour consistent with that observed in the LTC modelling. This included comparing directional flow levels, assessing rerouting proportions, and validating the overall magnitude of induced demand.

The final set of direction and vehicle-class specific factors (percentage increases) extracted from the LTC LTAM technical documentation, and applied to the TSTM for the with and without local plan modelling, are presented in **Table 4-11**.

Direction	Peak Period	Car	LGV	HGV
SB	AM	81%	18%	19%
	IP	43%	6%	3%
	PM	58%	6%	2%
NB	AM	103%	27%	30%
	IP	97%	28%	23%
	PM	85%	25%	20%

Table 4-11: LTC Factors

Table 4-12 illustrates the impact of our methodology for accounting for induced demand from the Lower Thames Crossing. If a fixed demand growth approach were used, the increase between the Base Year and the With Local Plan scenario would be 12–24%, resulting in significantly lower traffic on the crossings and effectively ignoring additional trips that would use the crossings. Using our described methodology, however, the growth on the crossing ranges from 42–68% depending on the modelled period, using a methodology with LTC induced demand figures.

The LTC project report indicates an increase of approximately 55% in northbound and 40% in southbound daily flows across Dartford Crossing and LTC between DM and DS. Our model produces very similar results: compared to the fixed-flow scenario, base trips increased by 47% in the AM peak, 24% in the inter-peak, and 34% in the PM for the southbound direction. In the northbound direction, the increases are 50% in the AM, 44% in the inter-peak, and 42% in the PM, as shown in **Table 4-12**. However, it should be noted that our base-year and forecast-year models differ from the LTAM model. In addition, our forecasts are based on TEMPro 8 and incorporate the Local Plan scenario, which results in some deviations due to differences in modelling approach and time period.

Direction	Crossing	Time Period	Base	2044 Local Plan (Fixed Demand)		2044 Local Plan (+Induced Demand)	
			Flow	Flow	%Change vs Base	Flow	%Change vs Base
SB	Dartford Crossing	AM	5872	4584	-22%	6439	10%
		IP	5479	4304	-21%	5168	-6%
		PM	6035	5145	-15%	6491	8%
		SAT	5830	4881	-16%	6095	5%
	Lower Thames Crossing	AM	0	1992	NA	2896	NA
		IP	0	2177	NA	2627	NA
		PM	0	2189	NA	2936	NA
		SAT	0	2016	NA	2656	NA
	Total	AM	5872	6576	12%	9335	59%
		IP	5479	6481	18%	7795	42%
		PM	6035	7334	22%	9427	56%
		SAT	5830	6897	18%	8751	50%
NB	Dartford Crossing	AM	6072	4968	-18%	6908	14%
		IP	4873	4601	-6%	6291	29%
		PM	5793	5472	-6%	6762	17%
		SAT	5277	5038	-5%	5938	13%
	Lower Thames Crossing	AM	0	2081	NA	3198	NA
		IP	0	1419	NA	1907	NA
		PM	0	1624	NA	2761	NA
		SAT	0	1300	NA	2639	NA
	Total	AM	6072	7049	16%	10106	66%
		IP	4873	6020	24%	8198	68%
		PM	5793	7096	22%	9523	64%
		SAT	5277	6338	20%	8577	63%

Table 4-12: LTC and Dartford Crossing Flows Comparison (Base Year vs Forecast Years)

4.7 Matrix Total Comparison

We compared the 2023 base demand matrix totals with the 2044 Without Local Plan and With Local Plan scenarios for each user class. Overall, the analysis indicates an approximate 13% increase in total demand relative to the 2023 base year. Among the different user classes, Light Goods Vehicles (LGVs) show the highest level of growth, while Heavy Goods Vehicles (HGVs) show the lowest. These differences reflect the NRTP-based growth projections applied within the TSTM, which result in varying rates of increase across user classes. **Table 4-13** shows the comparison between the base and future year scenarios. The growth percentage reflected in the tables are with respect to the base.

Peak Period	User Class	Base	2044 Without LP	%Growth	2044 With LP	%Growth
AM	Car Business	71892	80054	11%	80417	12%
	Car Commute	336517	369847	10%	371667	10%
	Car Other	653406	718657	10%	723456	11%
	LGV	272793	338528	24%	339096	24%
	HGV	221362	232361	5%	233283	5%
	Total	1555970	1739447	12%	1747919	12%
IP	Car Business	70050	78868	13%	78831	13%
	Car Commute	106885	119313	12%	119892	12%
	Car Other	760805	847940	11%	852304	12%
	LGV	235966	292675	24%	293147	24%
	HGV	218128	228482	5%	229038	5%
	Total	1391835	1567279	13%	1573212	13%
PM	Car Business	61211	68128	11%	68341	12%
	Car Commute	342432	377140	10%	378690	11%
	Car Other	725445	798631	10%	805361	11%
	LGV	244432	303127	24%	303567	24%
	HGV	134681	140977	5%	141636	5%
	Total	1508201	1688003	12%	1697596	13%
SAT	Car Business	68103	76506	12%	76730	13%
	Car Commute	97832	108727	11%	109252	12%
	Car Other	1001792	1111564	11%	1116348	11%
	LGV	164152	203474	24%	203802	24%
	HGV	82719	86627	5%	86991	5%
	Total	1414597	1586898	12%	1593123	13%

Table 4-13: Highway Matrix Total Comparisons Across All Peaks

Table 4-14 presents the public transport demand matrix totals for all modelled periods for the 2023 Base, 2044 Without Local Plan, and 2044 With Local Plan scenarios. The growth in the Without Local Plan scenario is negligible, and in most time periods the totals are slightly lower than the Base. This is due to negative background growth from Temprow, which results in totals of around 97% of the Base. Although the scenario includes Base plus committed development trips, the level of committed development in Thurrock is relatively small, so the overall PT demand remains very similar to the Base.

Total Matrix – Public Transport			
Peak Period	Base	2044 Without LP	2044 With LP
AM	41324	40271	44450
IP	35869	35296	35808
PM	41458	40417	46373
SAT	30529	30023	30606

Table 4-14: PT Matrix Total Comparison Across All Peaks

5 Forecasting Network

5.1 Network Changes

From the UL, several transport schemes have been classified as either near certain or more than likely and have therefore been included in both the with and without Local Plan scenarios. Within the Thurrock area, **Table 5-1** summarises the key network changes included within the forecast models. These include major highway interventions across the River Thames, and improvements in the M25 and A13 corridors. The Lower Thames Crossing is the most significant scheme, providing a new strategic connection between Kent and Essex through a new road tunnel and purpose-built links connecting to the A2 and M2 in the south and the M25 in the north. The model reflects the associated changes to routing and junction layouts.

Upgrades at M25 Junction 28, known as the Brook Street Interchange, introduce a new free flow link between the M25 northbound and the A12 eastbound, together with improvements to the roundabout and slip roads to reduce congestion and improve traffic operation.

At M25 Junction 29, enhancements include widened slip roads, revised merging arrangements and operational improvements to strengthen movements between the M25 and the A127.

The committed A127 widening scheme is also represented within the model to reflect increased capacity and improved mainline performance along this important east to west corridor.

At M25 Junction 30, the scheme introduces additional lanes and redesigned slip roads to address congestion on approaches to the A13 which is a key route through Thurrock.

Along the A13 corridor, the Stifford Interchange includes mainline widening, improved junction geometry and refined slip road layouts to reduce queuing. Further east, the A13 and A1014 Manorway Junction has been upgraded to include layout changes and improved traffic control that support movements associated with London Gateway and growth in the surrounding area.

Together, these major schemes ensure that the forecast models provide an accurate representation of future operating conditions across the strategic road network.

The only change in the forecast network for PT is the removal of the ferry service from Tilbury to Gravesend in Thurrock.

There were no network changes for any Local Plan development schemes or mitigation in the with Local Plan scenarios.

Location	Funding/Promoter	Description
Lower Thames Crossing	NH	Proposed new road of approx. 14.3 miles long, with 2.6 miles of this in two tunnels under the Thames that would connect to the A2 and M2 in Kent to the A13 in Thurrock and junction 29 of the M25 in the London Borough of Havering.
M25 Junction 28	NH RIS	New two-lane loop road, for traffic travelling from the M25 anti-clockwise onto the A12 eastbound (towards Brentwood), including the construction of new bridges to take the loop road over or under the other road links, and the Weald Brook; New signage and changes to the landscape, changing the position of A12 eastbound exit slip road and M25 anti-clockwise entry slip road to allow for the new loop road, widening the M25 anti-clockwise carriageway to provide more space for traffic leaving for the A12 eastbound.

M25 Junction 29	Brentwood Enterprise Park	Capacity enhancement through carriage widening on all approaches of J29, new M25 J29 to B186 link road with A127 overbridge and access to B186
M25 Junction 30	London Gateway LDO2	Localised widening on the A13 Westbound approach, the A282 Northbound approach and the junction gyratory, and lane reallocation on the M25 southbound approach to accommodate reallocation of traffic lanes through the junction
	TEP	Flare lanes switch on the southbound approach to the roundabout (M25) and lane connections revise
	Purfleet Redevelopment (former PCRL plan)	Localised widening and revised lane markings on the A13 Westbound off slip
	Tilbury2	Revised road markings on the A282 Slip Road northbound
	Tilbury2	Revised road markings on the A13 westbound
	Purfleet Redevelopment (former PCRL plan)	New traffic signals and associated road marking on the A282 Slip Road northbound to give priority to traffic leaving the main carriageway
M25 Junction 31	Purfleet Redevelopment (former PCRL plan)	Upgrade of Junction 31 to a MOVA or similar system to improve traffic flow and optimize the junction taking into account the additional traffic generated by the Development along with Variable Message Signs
A13 Stifford Interchange	Thurrock	Introduction of traffic signal control on the A13 Stifford Interchange and road markings
A13/A1014 Manorway Junction	TEP	Carriageway widening on the southbound approach to the roundabout (A13) for a new left turn lane and revised lane allocation at the A13/A1014 junction
	London Gateway LDO2	Localised widening and revised lane allocations, together with all necessary reassessment of the signal controller design at the Manorway Interchange
Sorrells Roundabout	TEP	Addition of one circulatory lane on the southern aspect of the roundabout, a revised lane allocation and an additional lane added on the westbound carriageway of The Manorway, with a three to two lane merge on The Manorway westbound carriageway
Treacle Mine Roundabout	Titan Works	Improvements to A1012 arm of the Treacle Mine roundabout
London Road Purfleet roundabout	Port of Purfleet	Realignment of London Road to the south of the existing Stonehouse Corner Roundabout on the A1090 to include a new four-arm roundabout south of the HS1 viaduct with separate arms from this roundabout providing access to the Purfleet Real Estate site through a new Security Gate Complex
Tree Tops Access Road	Thurrock	New access road from A1013 Stanford Road joining at a new signalised junction
A127/B148 Dunton Junction	Dunton Hills Garden Village	Widening the shared-use footway / cycleway around the south-west corner of the junction to provide more space for cyclists and pedestrians and a new Toucan traffic signal-controlled crossing to provide access from the west side of West Mayne, across to the eastern side where onward cycle routes are provided

A127/A128 Junction	Dunton Hills Garden Village	Incorporate traffic signal control to the A127 / A128 gyratory to provide crossing facilities
A127/A130 Junction Fairglen Interchange	Essex Highways	New link road from A130 to A127 via A1245: A new link road will provide a direct route from the A130 southbound to the A1245, from where traffic can easily access the A127. The link will join the A1245 via a new traffic-light-controlled junction with two right-turn-only lanes. The link road will be one-way, with no direct route in the opposite direction from the A1245 to the A130. Fairglen Roundabout improvements: A new dedicated left-turn lane from the A1245 to the A127 eastbound, bypassing the roundabout, with new dedicated slip lane and existing slip road retained. The slip lane for westbound traffic leaving the A127 to enter the roundabout will be expanded from two lanes to three. There will be an additional southbound lane from Fairglen Roundabout to Rayleigh Spur Roundabout. Rayleigh Spur Roundabout improvements: The roundabout will be enlarged with additional circulatory lanes and traffic lights on two of the three arms. There will be new traffic lights at the A130 southbound approach to the roundabout, with the road expanded to three lanes. The existing left-only bypass would be retained, avoiding the roundabout. There will be new traffic signals at the A130 northbound approach to the roundabout, with the road expanded from two lanes to three. The existing left only bypass will be retained, avoiding the roundabout. The southbound A130 exit from the roundabout will be expanded from two lanes to three. The A1245 southbound approach to the roundabout will be realigned because of the lane widening, and the existing bypass lane will be removed and become private access only. The bypass lane is being removed to provide safe access and egress to the private access and to avoid an additional lane of traffic needing to merge with the three lanes exiting the Rayleigh Spur roundabout southbound.
Fortune of War junction	Essex Highways	Realigning the carriageway at the Fortune of War junction
A127 Widening	Essex Highways	An additional eastbound lane created between the Halfway House and Dunton junctions
A128 / DHGV Primary access	Dunton Hills Garden Village	Modify existing A128 / Old Tilbury Road junction to incorporate a four-arm priority-controlled roundabout, two lane approaches with crossing facilities on all arms, traffic-signal controlled crossing on north arm
A128 / DHGV Southern access	Dunton Hills Garden Village	Three-arm priority roundabout from the A128
A128 / DHGV Station Road Junction	Dunton Hills Garden Village	Introduction of traffic signal control replacing the existing T-junction arrangement, a fourth arm to the junction restricted to active movements and public transport only (to and from Station Road only) and pedestrian / cycle crossing of the A128 on the north side of the junction
A128 / HSM Access	Horndon St Mary	New three-arm priority roundabout from the A128 with segregated southbound lane

B186 improvements	Thurrock	Short-term measures Spiral markings at Arterial Road Roundabout (Partial spiral option 2), partial spiral marking, lane rationalisation and toucan crossings on NW and W arms at Weston Avenue Roundabout, pedestrian deterrent measures at Lancaster Roundabout
		Medium-term measures Addition of southbound bus lane on B186 WTW between Arterial Road and Weston Avenue Left-In/Left-Out layout at Weston Avenue Logistics Hub/Thurrock Shopping Park (option 1)
		Long-term measures Signalised roundabout at Arterial Road Roundabout, and signal-controlled junction at Weston Avenue (Option 2 - Signalised Crossroads)
TEP-LG link road	London Gateway LDO2	Link Road or route connecting the London Gateway and the Thames Enterprise Park for the use of buses, developed by or on behalf of or with the support of the Council, the design and business case for which shall be approved by the Travel Plan Committee
	TEP	Freight link between TEP and the DPW site. The delivery of such a link would reduce journey distances for some freight movements, in line with transport policy objectives, and remove traffic from The Manorway and Sorrells Roundabout. The potential delivery of such a link will be the subject of further discussions between the owners of TEP, DPW and TC
Purfleet roads reviewed	Purfleet Redevelopment (new partnership)	Realignment of London Road with new bridge over the railway line with HGV restriction
Station Road speed control	Dunton Hills Garden Village	Traffic calming features at the gateway to the village
St Mary Lane	Horndon St Mary	Realignment of St Mary Lane and close to vehicle traffic (bus and active travel route)
Childerditch Lane	Horndon St Mary	Turn into one way with banned turns and 30mph speed limit
Dunnings Lane	Horndon St Mary	Priority T junction from site access to Dunnings Lane and 30mph speed limit
A1014 Speed Cameras	London Gateway LDO2	Speed Control Measures speed cameras and associated infrastructure located on the A1014 The Manorway between the Sorrells roundabout and the A13 Manorway Interchange

Table 5-1: Uncertainty Log Infrastructure Changes (2019-2044)

Figure 5-1 This map highlights the network structure changes in the 2044 forecast year resulting from the planned infrastructure schemes. Only the schemes that alter the overall network structure are shown, as some schemes involve only junction layout modifications or speed limit changes and therefore do not affect the network structure.



Figure 5-1: Change in Network Structure between Base and 2044 Forecast Year

5.2 Generalised cost

Cost changes have been calculated for the 2044 forecast year. Highway trip costs include the combined effects of time, distance and any applicable charge elements. Values of Time and Vehicle Operating Costs vary by journey purpose and have been updated for 2044 to reflect projected changes in fuel prices, vehicle efficiency and income. These updates are based on the TAG Data Book published in November 2024. The TAG parameters have been used to derive the 2044 values of time, expressed in SATURN as pence per minute, and vehicle operating costs, expressed as pence per kilometre. **Table 5-2** and **Table 5-3** present the highway generalised cost coefficients applied for the 2044 forecast year in pence per minute and pence per kilometre. The factor applied to HGV Values of Time, reflecting both operational time and operating costs, has been retained at a value of two, consistent with the approach used in the base year.

User Class	AM	IP	PM	Saturday
Car Business	41.34	42.37	41.94	48.02
Car Commuting	27.73	28.18	27.82	29.56
Car Other	19.13	20.38	20.03	23.69
LGV	30.75	30.75	30.75	33.18
HGV	64.23	64.23	64.23	64.23

Table 5-2: Forecast Year PPM Values (VoT)

User Class	AM	IP	PM	Saturday
Car Business	7.93	7.93	7.93	7.93
Car Commuting	3.73	3.73	3.73	3.73
Car Other	3.73	3.73	3.73	3.73
LGV	9.87	9.87	9.87	9.87
HGV	30.87	30.87	30.87	30.87

Table 5-3: Forecast Year PPK Values (VoC)

5.3 Local Plan Development Zones

The zones shown in **Figure 5-2** represent new zones added to the SATURN model to account for the large local plan development sites. In SATURN, the zone names correspond directly to the development ID, as detailed in **Table 4-3**. For most of these new zones, trip distributions are derived from the base zones in which they are nested, reflecting the surrounding travel patterns.

The trip distribution for the development sites should be derived from adjacent zones with similar land use, as all major developments are in areas with comparable land use characteristics. In this case, we initially used the trip distribution from the original zones in which the developments are located. West Horndon (Zone 60913), however, is a particularly large development, and using only the nested zone would not accurately represent travel demand. Therefore, its distribution was calculated based on the nested zone as well as three additional adjacent zones (190, 192, 113, and 350), as illustrated in **Figure 2-4**, to better capture the likely travel patterns and impacts on the network.

It is noted that for the PT model, the zone system remains consistent with the base, with large developments captured within the existing zoning with the same connection to the PT network.

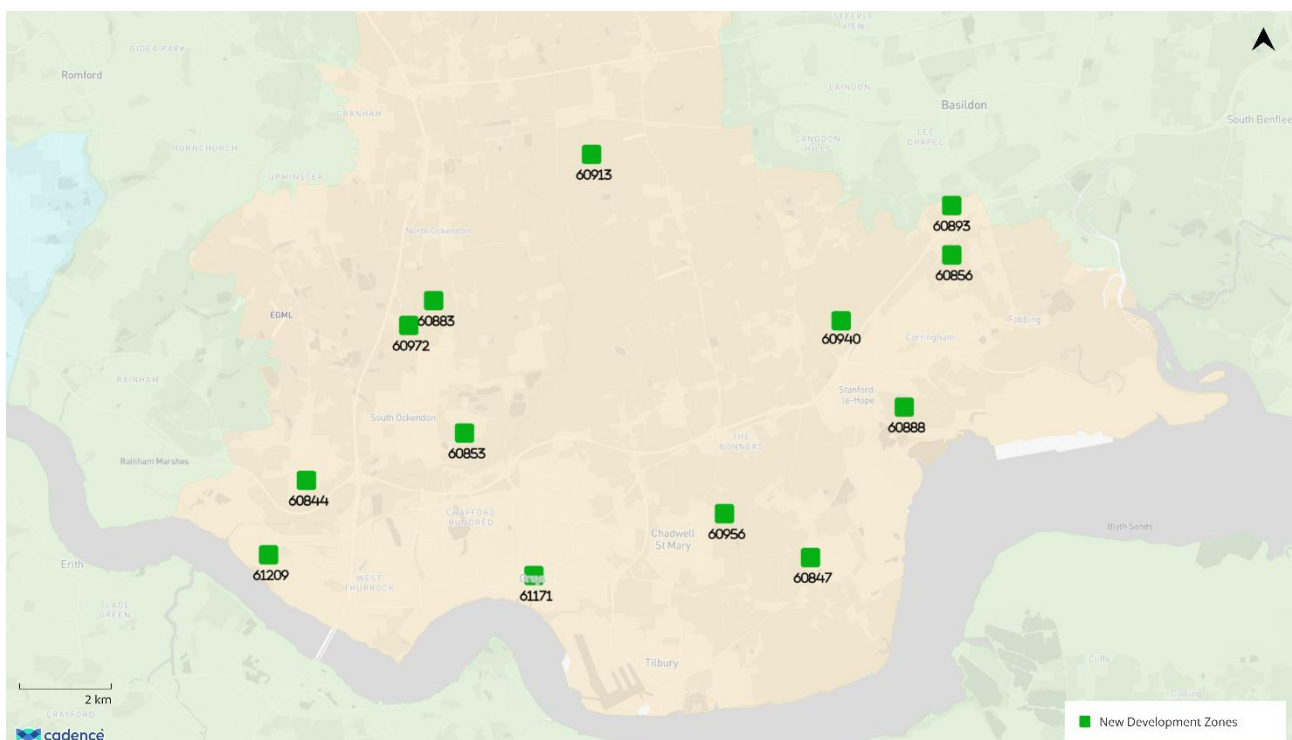


Figure 5-2: Mapped Development Zones

6 Outputs

6.1 Network Performance Metrics

Table 6-1 to **Table 6-4** compare the assignment network performance statistics for the base year and the 2044 Without and With Local Plan scenarios during the AM peak, inter-peak, PM peak, and Saturday peak periods. The performance indicators include:

- Simulation network speed (kph): Calculated as total simulated distance divided by total simulated time.
- Total travel time (PCU-hours): The total amount of time spent by all vehicles travelling across all links and junctions within the simulation network.
- Total travel distance (PCU-km): The sum of all vehicle-kilometres travelled within the simulation network.

The average speed within the simulation area decreases by 6–10% (depending on the peak hour) in the Without Local Plan scenario, and by 8–13% in the With Local Plan scenario compared to base.

More detailed network performance results are provided in **Appendix E – Network Performance Comparison for Base, 2044 Without LP, and 2044 With LP Across All Peak Periods**.

Metrics	2023	2044		2044	
	Base	Without LP	% Diff with Base	With LP	%Diff with Base
Simulation Network Speed, KPH	60.5	54.3	-10%	52.5	-13%
Total Travel Time, PCU.hrs	18796.7	26449.3	41%	28834.9	53%
Total Travel Distance, PCU.kms	1137352	1436353.3	26%	1514342	33%

Table 6-1: Network Performance - AM Peak Hour

Metrics	2023	2044		2044	
	Base	Without LP	% Diff with Base	With LP	% Diff with Base
Simulation Network Speed, KPH	62.3	58.5	-6%	57.3	-8%
Total Travel Time, PCU.hrs	16561.6	21948.8	33%	23372.2	41%
Total Travel Distance, PCU.kms	1031476	1283709.6	24%	1338408	30%

Table 6-2: Network Performance – Inter-peak

Metrics	2023	2044		2044	
	Base	Without LP	% Diff with Base	With LP	% Diff with Base
Simulation Network Speed, KPH	59.1	54.4	-8%	51.3	-13%
Total Travel Time, PCU.hrs	19781.6	26946.9	36%	30289.3	53%
Total Travel Distance, PCU kms	1168474	1466935	26%	1552422	33%

Table 6-3: Network Performance - PM Peak

Metrics	2023	2044		2044	
	Base	Without LP	% Diff with Base	With LP	% Diff with Base
Simulation Network Speed, KPH	57.2	52.2	-9%	51.3	-10%
Total Travel Time, PCU.hrs	18707.7	25905.2	38%	27507.3	47%
Total Travel Distance, PCU kms	1069937	1353172.1	26%	1412214	32%

Table 6-4: Network Performance - SAT Peak

6.2 Journey Times

A comparison of journey times between key points in Thurrock for the base year, the without Local Plan scenario and the with Local Plan scenario is presented in **Table 6-5** to **Table 6-8**. Route 4 westbound, running from Stanford-le-Hope Roundabout to Orsett Cock Roundabout via Stanford Road, records the largest increase in journey time, observed during the AM peak only. Other routes exhibiting notable increases in journey times (greater than 45%) include Routes 3 northbound and southbound, Route 12 southbound, and Route 16 southbound during the AM peak. However, the scale of these increases is considerably lower than that observed on Route 4.

In general, most routes experience higher delays in both future scenarios relative to the base year, reflecting the expected increases in traffic demand. A small number of routes, such as Route 7 westbound, show slight improvements in journey time across all peak periods where capacity enhancement schemes provide benefits that outweigh the impact of traffic growth. Journey times along the M25 corridor, represented by Route 8, display only moderate increases across all time periods, although PM and Saturday northbound conditions indicate more pronounced congestion. Improvements at selected M25 junctions help to mitigate some of the delay associated with rising traffic volumes. **Figure 6-1** illustrates the journey time routes across Thurrock.

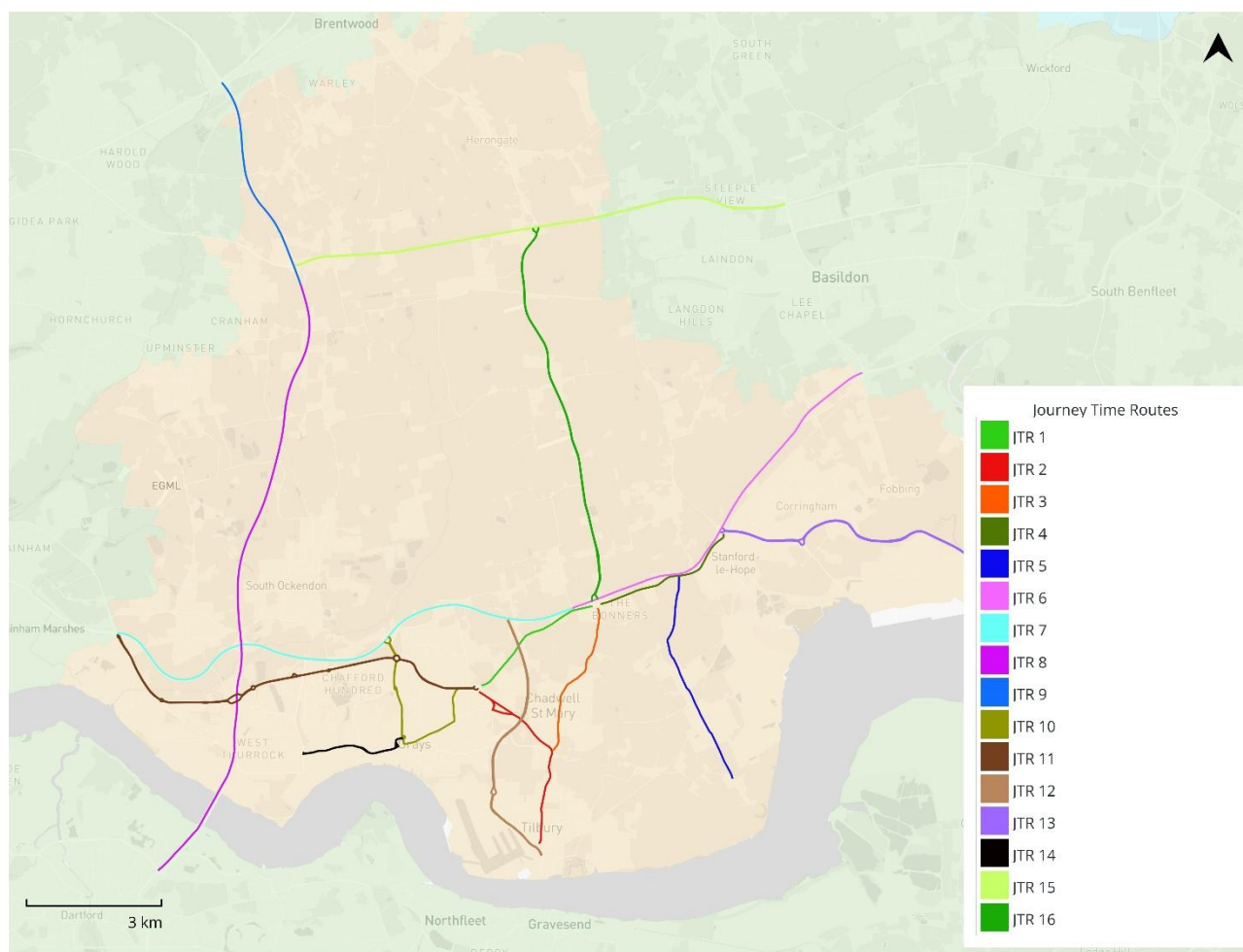


Figure 6-1: Journey Time Routes

JTR ID	Base Time	2044 Without Local Plan			2044 With Local Plan		
		Time	Change vs Base (Seconds)	Change vs Base	Time	Change vs Base (Seconds)	Change vs Base
1_EB	206	218	12	6%	225	19	9%
1_WB	266	295	29	11%	314	48	18%
2_NB	437	446	8	2%	466	29	7%
2_SB	415	424	9	2%	430	15	4%
3_NB	311	321	10	3%	488	177	57%
3_SB	314	432	119	38%	458	144	46%
4_EB	239	243	4	2%	265	26	11%
4_WB	245	275	30	12%	589	345	141%
5_NB	450	462	12	3%	495	46	10%
5_SB	419	433	15	4%	456	38	9%
6_EB	359	379	19	5%	401	41	12%
6_WB	367	405	39	11%	464	98	27%
7_EB	496	493	-2	0%	498	2	0%
7_WB	523	504	-19	-4%	512	-11	-2%
8_NB 1	623	677	54	9%	672	49	8%
8_NB 2	626	701	75	12%	676	50	8%
8_SB	558	557	0	0%	561	3	1%
9_NB	193	253	59	31%	269	75	39%
9_SB	196	242	46	23%	244	48	24%
10_EB	600	608	7	1%	627	27	4%
10_WB	495	531	35	7%	541	46	9%
11_EB	935	987	53	6%	989	55	6%
11_WB	922	988	66	7%	1022	100	11%
12_NB	328	337	9	3%	354	26	8%
12_SB	363	477	114	31%	569	207	57%
13_EB	405	407	2	0%	411	6	1%
13_WB	489	491	2	0%	494	5	1%
14_EB	258	265	7	3%	269	11	4%
14_WB	286	297	11	4%	305	19	7%
15_EB	503	515	11	2%	529	25	5%
15_WB	535	564	29	5%	639	104	19%
16_NB	462	535	73	16%	613	151	33%
16_SB	439	443	3	1%	675	236	54%

Table 6-5: JTR Comparison - AM Peak

JTR ID	Base Time	2044 Without Local Plan			2044 With Local Plan		
		Time	Change vs Base (Seconds)	Change vs Base	Time	Change vs Base (Seconds)	Change vs Base
1_EB	226	212	-13	-6%	217	-9	-4%
1_WB	247	269	22	9%	275	29	12%
2_NB	416	417	1	0%	417	1	0%
2_SB	400	405	5	1%	406	6	2%
3_NB	300	308	9	3%	316	17	6%
3_SB	310	421	112	36%	427	117	38%
4_EB	232	239	7	3%	259	27	11%
4_WB	234	237	3	1%	250	16	7%
5_NB	420	436	15	4%	438	17	4%
5_SB	415	429	13	3%	436	20	5%
6_EB	363	371	8	2%	389	26	7%
6_WB	351	341	-10	-3%	357	6	2%
7_EB	509	508	-1	0%	517	9	2%
7_WB	504	488	-17	-3%	489	-15	-3%
8_NB 1	567	582	16	3%	583	16	3%
8_NB 2	573	589	16	3%	590	17	3%
8_SB	549	539	-10	-2%	537	-12	-2%
9_NB	180	214	34	19%	215	35	19%
9_SB	194	231	37	19%	225	31	16%
10_EB	517	524	7	1%	532	15	3%
10_WB	453	474	21	5%	481	28	6%
11_EB	890	953	63	7%	966	75	8%
11_WB	878	899	21	2%	896	18	2%
12_NB	325	332	6	2%	336	11	3%
12_SB	355	450	94	27%	497	142	40%
13_EB	406	407	2	0%	408	2	1%
13_WB	483	486	3	1%	496	13	3%
14_EB	263	274	11	4%	280	17	7%
14_WB	272	277	5	2%	275	3	1%
15_EB	499	505	5	1%	509	10	2%
15_WB	492	497	5	1%	501	9	2%
16_NB	427	519	93	22%	554	127	30%
16_SB	428	436	8	2%	491	64	15%

Table 6-6: JTR Comparison – Inter-peak

JTR ID	Base Time	2044 Without Local Plan			2044 With Local Plan		
		Time	Change vs Base (Seconds)	%Change vs Base	Time	Change vs Base (Seconds)	%Change vs Base
1_EB	232	216	-16	-7%	223	-9	-4%
1_WB	252	279	27	11%	285	33	13%
2_NB	424	424	0	0%	428	3	1%
2_SB	410	415	4	1%	415	4	1%
3_NB	307	314	7	2%	323	16	5%
3_SB	315	425	109	35%	432	117	37%
4_EB	247	274	27	11%	314	67	27%
4_WB	259	257	-1	-1%	302	43	17%
5_NB	427	434	7	2%	449	22	5%
5_SB	437	455	18	4%	457	20	4%
6_EB	374	411	37	10%	459	85	23%
6_WB	356	371	15	4%	417	61	17%
7_EB	539	587	48	9%	617	78	15%
7_WB	507	495	-12	-2%	499	-8	-2%
8_NB 1	596	758	161	27%	759	163	27%
8_NB 2	598	762	164	27%	766	167	28%
8_SB	559	554	-5	-1%	559	0	0%
9_NB	184	231	47	26%	230	46	25%
9_SB	201	262	61	30%	269	68	34%
10_EB	601	599	-2	0%	620	20	3%
10_WB	520	545	24	5%	571	51	10%
11_EB	952	1065	113	12%	1120	167	18%
11_WB	886	906	21	2%	922	36	4%
12_NB	325	332	7	2%	344	19	6%
12_SB	340	345	6	2%	350	10	3%
13_EB	373	376	3	1%	381	8	2%
13_WB	460	461	1	0%	484	24	5%
14_EB	278	287	8	3%	334	55	20%
14_WB	277	281	4	2%	286	10	3%
15_EB	597	623	26	4%	652	56	9%
15_WB	509	529	19	4%	578	69	14%
16_NB	438	531	93	21%	632	194	44%
16_SB	448	450	2	0%	576	128	29%

Table 6-7: JTR Comparison - PM Peak

JTR ID	Base Time	2044 Without Local Plan			2044 With Local Plan		
		Time	Change vs Base (Seconds)	%Change vs Base	Time	Change vs Base (Seconds)	%Change vs Base
1_EB	225	209	-17	-7%	213	-12	-5%
1_WB	246	263	17	7%	282	36	15%
2_NB	422	424	2	1%	427	5	1%
2_SB	400	405	5	1%	409	9	2%
3_NB	303	314	12	4%	335	32	10%
3_SB	311	421	110	35%	435	124	40%
4_EB	247	244	-3	-1%	283	36	15%
4_WB	257	236	-21	-8%	253	-4	-2%
5_NB	416	439	23	6%	457	41	10%
5_SB	433	448	15	4%	475	41	10%
6_EB	364	377	12	3%	386	22	6%
6_WB	352	344	-8	-2%	371	20	6%
7_EB	495	514	19	4%	527	31	6%
7_WB	497	486	-12	-2%	490	-8	-2%
8_NB 1	589	821	232	39%	821	232	39%
8_NB 2	596	826	230	39%	833	237	40%
8_SB	543	536	-7	-1%	538	-5	-1%
9_NB	183	221	38	20%	225	42	23%
9_SB	191	221	30	16%	222	31	16%
10_EB	533	533	0	0%	551	18	3%
10_WB	465	486	22	5%	492	28	6%
11_EB	949	969	20	2%	998	49	5%
11_WB	904	895	-9	-1%	905	2	0%
12_NB	316	322	5	2%	325	9	3%
12_SB	337	342	5	2%	347	10	3%
13_EB	400	400	1	0%	401	1	0%
13_WB	470	471	0	0%	483	13	3%
14_EB	277	285	8	3%	293	16	6%
14_WB	272	283	10	4%	288	15	6%
15_EB	557	509	-48	-9%	513	-43	-8%
15_WB	518	522	4	1%	534	15	3%
16_NB	423	517	95	22%	543	120	28%
16_SB	432	439	7	2%	546	114	26%

Table 6-8: JTR Comparison - Saturday Peak

6.3 Network Delays and Congestions

This section describes congestion within the network by reporting the volume-to-capacity ratio (v/c) for both links and nodes. It highlights the links or nodes whose V/C band has changed in at least one peak period. **Table 6-9** below provides a legend for the colour-coded v/c ratio bands, which correspond to the values shown in the node and link tables in the following sections.

Legend	
Colour	Description
	Below 80% Capacity
	Approaching Capacity Threshold (80 - 85%)
	Exceeding Capacity Threshold (85- 90%)
	At Practical Capacity (90 to 95%)
	Above Practical Capacity (95 to 100%)
	Overloaded (>100%)

Table 6-9: Colour-Coded V/C Ratio Band Legend

6.3.1 Node V/C Percentages

Table 6-10 presents v/c ratios for all nodes and junctions affected between the ‘without Local Plan’ and ‘with Local Plan’ scenarios. The table includes junctions even if changes occur in only one time period. Most of the observed changes are minor, typically a 1–2% increase in v/c. While these small increases may shift a junction to a different level of service based on **Table 6-9**, they are generally considered to be within the modelling ‘noise’ and are not significant.

Forecast Year 2044										
Node	Area	Description	AM		IP		PM		SAT	
			Without LP	With LP	Without LP	With LP	Without LP	With LP	Without LP	With LP
1083	Sim	A124 Upminster Rd/ Wingletye Ln	91.86	87.97	84.00	82.36	86.49	82.21	72.02	70.60
33481	Sim	A13 Thames Gateway	62.97	62.04	80.15	79.64	100.16	99.20	101.45	101.49
33495	Sim	A13	62.36	61.62	80.70	80.07	97.69	96.81	95.26	95.32
34578	Sim	A12 Colchester Rd	49.27	49.03	86.77	86.25	82.65	83.03	85.18	85.58
36902	Sim	Dovers Cor RdAbout	95.99	95.18	87.06	86.65	84.42	83.85	85.92	85.48
75107	Sim	A282 Dartford Crossing	99.99	102.15	93.82	93.82	106.70	105.54	112.41	112.03
75109	Sim	A282 Dartford Crossing	98.10	99.84	87.05	87.02	105.36	104.56	111.41	111.44

75425	Sim	A282 Dartford Crossing	97.28	99.00	86.32	86.30	95.83	95.83	79.17	79.17
75427	Sim	A282 Dartford E Tunnel	97.28	99.00	86.32	86.30	95.83	95.83	79.17	79.17
76010	Sim	A127 Southend Arterial Rd	91.79	91.49	74.42	74.08	83.58	82.80	85.08	84.85
76011	Sim	A127 Southend Arterial Rd	90.81	89.53	97.54	97.07	103.64	103.63	103.50	103.48
76024	Sim	A1245 Roundabout	89.00	88.92	80.93	78.33	88.90	88.87	83.24	83.59
76025	Sim	A1245/A127 RdAbout Junction	77.15	46.30	94.65	96.60	92.04	92.74	105.33	104.22
76075	Sim	A176 Upper Mayne Rd	92.73	90.90	84.36	82.85	95.83	95.80	85.53	84.15
76080	Sim	A176 Upper Mayne Rd	93.39	91.79	84.70	83.03	95.59	95.48	84.77	83.21
76184	Sim	A130 Canvey Way	89.42	89.23	78.39	77.94	85.31	84.87	101.36	100.92
76193	Sim	A13	86.84	83.39	81.10	80.20	85.02	85.97	83.84	81.57
76225	Sim	A13 Stanford-le-Hope Byp	102.93	101.26	85.97	76.31	101.57	90.24	85.17	68.69
76231	Sim	A13 Stanford-le-hope Byp	93.85	86.54	83.29	79.86	97.40	91.53	92.37	87.57
76237	Sim	A13 Stanford-le-hope Byp	93.21	88.00	85.53	82.87	95.44	92.00	91.87	88.75
76243	Sim	A13 Stanford-le-hope Byp	93.21	88.00	85.53	82.87	95.44	92.00	91.87	88.75
76291	Sim	A13	72.22	66.70	80.65	73.76	86.38	80.35	60.03	57.22
76326	Sim	A13	86.84	83.39	81.10	80.20	85.02	85.97	83.84	81.57
81994	Sim	Littlebrook Interchange	68.77	88.05	95.71	95.97	84.46	43.64	106.82	106.68
82490	Sim	A282	101.99	99.45	83.75	83.72	93.43	97.41	82.75	82.49
82676	Sim	M25 London Orbital Motorway	84.10	83.67	81.76	84.21	95.28	95.06	85.19	85.23
82680	Sim	A127 Southend Arterial Rd	80.57	77.60	82.04	81.19	85.63	84.11	85.05	84.14
82706	Sim	Mardyke Junction	84.23	83.41	89.42	87.84	83.63	80.17	78.18	76.45
82781	Sim	M25 London Orbital Motorway	87.95	87.25	91.80	93.22	99.90	99.76	95.17	95.09
82784	Sim	M25 London Orbital Motorway	94.01	93.53	85.85	87.60	94.95	92.19	78.30	77.35
82813	Sim	M25 London Orbital Motorway	82.55	81.69	86.71	88.50	97.09	97.02	90.96	90.78
82821	Sim	M25 London Orbital Motorway	85.17	84.85	81.13	82.61	90.60	89.90	81.26	80.98
82839	Sim	M25 London Orbital Motorway	87.89	86.24	78.59	78.36	82.24	83.12	86.49	85.13
82870	Sim	M25 London Orbital Motorway	91.40	89.17	83.03	83.89	94.47	89.38	78.94	76.66
89514	Sim	Clock House Rd/Rectory Rd/Laindon Common Rd	86.76	86.34	83.61	83.70	98.20	98.91	118.41	118.21
89515	Sim	Laindon Common Rd	89.55	87.81	87.68	87.37	96.73	96.45	140.85	139.90
89943	Sim	A130 Canvey Way	118.84	118.52	95.85	95.43	102.02	101.56	107.20	107.08

19340	Buffer	Hailsham Rd	82.43	81.60	94.60	94.15	92.86	92.69	105.26	104.82
16184	Buffer	M25 London Orbital Motorway	103.49	102.97	87.20	88.61	94.62	94.90	94.74	94.18
22333	Buffer	Gore Rd/Darenth Park Ave	85.45	85.82	81.34	81.46	87.51	87.26	84.39	84.35
22332	Buffer	Lunedale Rd/Gore Rd	87.79	87.63	82.14	82.21	86.27	86.31	84.26	84.23
23164	Buffer	B2175 The Hill Northfleet/Church Path	105.81	105.70	99.22	99.17	101.74	101.83	91.08	91.00
23285	Buffer	A226 Milton Rd	92.94	92.83	80.68	80.65	86.51	86.76	75.38	75.30
23284	Buffer	A226 Milton Rd	92.94	92.83	80.68	80.65	86.51	86.76	75.38	75.30
76367	Buffer	A226 Gravesend Rd/Forge Ln	100.89	100.81	90.22	90.33	95.45	95.38	89.02	88.94
23215	Buffer	A226 Overcliffe/New Rd/Stuart Rd	85.61	85.48	89.14	89.10	103.64	103.75	90.66	90.64
32179	Buffer	A20 Sidcup By-Pass Rd	79.20	79.32	83.37	83.84	97.28	96.74	86.57	86.44
33233	Buffer	A2 E Rochester Wy	79.47	79.67	81.29	81.22	94.91	94.89	80.37	80.37
36328	Buffer	A221 Danson Upas/Danson Rd/Lodge Ln/ Lakeside Cl	93.78	94.35	95.07	95.08	95.02	92.23	96.32	96.21
33449	Buffer	A2 E Rochester Wy	97.46	98.00	101.33	101.34	111.42	110.93	102.05	102.03
33447	Buffer	A2 E Rochester Wy	83.81	84.88	91.59	91.50	101.55	99.79	90.33	90.30
34508	Buffer	A124 Hornchurch Rd/Roneo Link	97.64	97.40	100.46	100.57	100.90	100.90	101.01	100.62
35120	Buffer	A125 North St/ Parkside Ave	94.66	95.26	93.13	93.47	93.90	93.28	95.39	95.26
34544	Buffer	Collier Row Ln/Havering Rd	83.13	81.71	92.67	91.83	106.45	105.39	91.90	91.41
34599	Buffer	A1306 New Rd	97.60	97.42	86.00	86.56	83.56	82.91	87.17	86.61
67212	Buffer	Hempstead Rd/Hempstead Valley Dr	80.83	80.71	81.57	81.59	92.06	91.99	84.61	84.54
67303	Buffer	Rainham Rd/A2 Watling St/A231 Canterbury St	97.04	96.97	92.33	92.34	101.62	101.60	94.79	94.76
67215	Buffer	A2 Rainham Rd/Ash Tree Ln	87.46	87.37	88.42	88.45	102.47	102.32	93.40	93.23
67227	Buffer	Walderslade Rd/King George Rd	90.26	90.20	82.76	82.76	96.92	96.82	86.63	86.55
67232	Buffer	A230 Maidstone Rd/The Ridgeway	90.69	90.60	82.23	82.18	102.63	102.43	86.05	85.95
67318	Buffer	St Margaret's St/Ridley Rd	87.21	87.13	83.37	83.37	97.81	97.64	86.58	86.44
67300	Buffer	City Way/A2 Star Hill/New Rd	94.12	94.11	94.32	94.29	104.97	104.94	94.23	94.19
67299	Buffer	B2097 Victoria St/A2 Starhill/High St	85.76	85.71	81.15	81.12	88.66	88.64	82.14	82.11
67229	Buffer	Woodhurst/Watson Ave/Hurstwood	109.51	109.43	94.83	94.85	99.38	99.51	95.65	95.54
97311	Buffer	A128 Ongar Rd/Osborne Rd	68.87	68.54	74.46	74.14	81.08	80.24	89.58	89.47
71381	Buffer	A128 Ongar Rd/Wingway/Doddinghurst Rd	76.42	76.13	80.78	80.45	88.10	87.18	100.06	99.89
71484	Buffer	Ghyllgrove/Whitmore Way	88.26	87.64	92.44	91.52	104.35	101.96	100.25	99.87

71721	Buffer	B2108 Hoo Rd/Wainscott Rd	79.15	79.14	85.42	85.48	90.82	90.79	78.51	78.44
71753	Buffer	A289 Vanguard Way	99.64	99.51	95.09	95.25	107.58	107.48	90.61	90.34
71731	Buffer	Upnor Roundabout	103.44	103.40	87.91	87.87	96.28	96.28	82.10	82.02
71732	Buffer	Upnor Roundabout	98.61	98.72	87.91	87.87	96.28	96.28	82.10	82.02
71728	Buffer	Upnor Roundabout	92.21	92.18	82.69	82.55	99.66	100.57	72.33	71.81
71737	Buffer	Sans Pareil Roundabout	109.52	109.48	97.30	97.22	104.11	104.06	90.86	90.80
71739	Buffer	Sans Pareil Roundabout	101.32	101.30	97.34	97.20	101.48	101.36	90.51	90.44
95639	Buffer	A289 Berwick Way/Sans Pareil Roundabout	96.50	96.39	92.41	92.46	103.99	103.90	88.49	88.35
71716	Buffer	Four Elms Roundabout	101.00	101.00	94.41	94.32	101.50	101.62	82.96	82.86
71757	Buffer	A127 Prince Ave	100.20	100.23	89.65	89.50	98.26	97.84	105.01	104.91
71769	Buffer	A127 Southend Arterial Rd	96.49	96.38	84.11	83.78	96.54	95.81	102.16	101.95
71758	Buffer	A127 Prince Ave	99.30	98.23	94.38	94.02	103.94	103.75	108.02	107.63
71843	Buffer	Rushdean Rd/Wells Rd	86.65	86.55	81.11	81.14	85.70	85.64	77.14	77.09
71847	Buffer	A2 London Rd/Northcote Rd	93.26	93.14	91.46	91.54	89.76	89.64	90.22	90.18
76005	Buffer	A127 Southend Arterial Rd	82.59	80.95	89.93	89.33	104.64	104.15	101.09	99.74
76007	Buffer	A127 Southend Arterial Rd	82.59	80.95	89.93	89.33	104.64	104.15	101.09	99.74
95944	Buffer	A129 High Rd/A1015 Eastwood Rd/High Rd	93.51	93.05	88.83	88.55	95.02	94.35	97.14	96.91
27600	Buffer	A226 Gravesend Rd	99.78	99.72	89.61	89.70	94.52	94.49	88.37	88.32
76375	Buffer	B2000 Lower Rochester Rd/A289 Hasted Rd	91.93	91.58	84.86	84.74	87.81	87.76	78.27	78.18
90853	Buffer	B2108 Brompton Farm Rd/Hollywood Ln/B2000 Lower Rochester Rd	98.42	98.33	94.56	94.55	97.21	97.21	88.38	88.36
81497	Buffer	A12 Ingatestone Byp	81.53	79.41	86.65	85.81	93.66	94.15	86.16	84.04
81600	Buffer	A12 Ingatestone Byp	81.53	79.41	86.65	85.81	93.66	94.15	86.16	84.04
82484	Buffer	M25 London Orbital Motorway	95.37	94.89	80.51	81.78	87.19	87.44	87.37	86.85
82920	Buffer	A2	96.83	96.28	82.65	82.76	88.54	89.26	78.37	78.34
83489	Buffer	Maritime Way/A289 Pier Rd - RdAbout	100.07	100.02	99.95	99.89	101.52	101.27	99.24	99.18
83487	Buffer	Maritime Way	102.36	102.39	99.37	99.30	101.90	101.79	95.41	95.39
89449	Buffer	Dock Rd/Maritime Way	92.88	92.93	87.26	87.27	91.12	90.91	85.38	85.33

83485	Buffer	Maritime Way - RdAbout Approach	100.18	100.17	97.62	97.64	102.11	101.90	94.29	94.23
94788	Buffer	The Strand Roundabout	96.89	96.85	95.87	95.84	101.17	101.15	95.61	95.58
83462	Buffer	Maritime Way - RdAbout	100.07	100.02	99.95	99.89	101.52	101.27	99.24	99.18
71756	Buffer	A127 Southend Arterial Rd	82.87	81.60	82.38	81.73	95.40	95.16	91.62	90.91
94674	Buffer	A231 Duncan Rd/ Balmoral Rd	88.67	88.52	82.67	82.72	98.80	98.89	88.89	88.84
76164	Buffer	A130 Canvey Rd/B1014 Cancy Rd/B1014 Somnes Ave - Roundabout	68.13	67.78	73.10	72.53	82.05	81.39	104.90	104.20
71773	Buffer	A127 Southend Arterial Rd	96.49	96.38	84.11	83.78	96.54	95.81	102.16	101.95
71774	Buffer	A127 Prince Ave	99.30	98.23	94.38	94.02	103.94	103.75	108.02	107.63
89901	Buffer	A1015 Eastwood Rd/Websters Way	93.81	93.34	94.63	94.48	100.51	99.91	106.66	106.43
89894	Buffer	B1013 Hockley Rd/Hambro Hill	70.61	70.19	75.98	75.74	83.64	83.26	90.45	90.02
88733	Buffer	A127 Prince Ave	85.66	85.51	80.89	80.63	85.78	85.61	89.05	88.90
82322	Buffer	A127 Prince Ave	78.13	77.23	77.44	77.15	88.09	87.58	91.36	90.59
89890	Buffer	Websters Way/B1013 Hockley Rd	94.53	94.26	93.15	92.90	98.38	97.85	105.72	105.37
89973	Buffer	A228 High St/ A2 Commercial Rd	93.16	93.14	81.73	81.80	101.74	101.70	84.94	84.81
89974	Buffer	A228 Commercial Rd/A2 High St	92.04	92.00	80.07	80.12	93.85	93.84	80.25	80.08
89456	Buffer	A231 Jeffery St	97.12	97.02	94.37	94.45	104.79	104.85	96.84	96.76
89494	Buffer	A129 London Rd	86.66	86.71	78.32	78.04	81.58	81.23	87.98	88.22
97627	Buffer	A129 Rayleigh Rd	77.99	78.07	75.90	75.70	99.00	97.96	105.32	105.14
71750	Buffer	Four Elms Roundabout	101.94	101.78	94.83	94.98	110.83	110.67	85.64	85.25

Table 6-10: Weighted Node V/C

6.3.2 Highest Link V/C Percentages

In addition to the node/junction analysis, a link-level analysis was undertaken. This was considered necessary as issues on minor roads can occasionally be masked within node analysis, which is based on average weighted flows and may therefore not fully reflect junctions experiencing significant delays on minor approaches alongside comparatively minor delays on major approaches. **Table 6-11** highlights the worst-performing link for each junction where changes were observed between the 'without Local Plan' and 'with Local Plan' scenarios. Most of the changes are minor and not considered significant, but a few are more pronounced and may require further investigation and potential mitigation measures.

Highest Link V/C - Forecast Year 2044										
Link ID	Area	Description	AM		IP		PM		SAT	
			Without LP	With LP	Without LP	With LP	Without LP	With LP	Without LP	With LP
1020-1019	Sim	High Rd	30.62	101.31	8.86	17.64	17.07	42.33	3	3.31
40117-1078	Sim	Bramble Ln	83.82	101.01	68.57	73.4	77.11	77.08	78.72	83.26
1082-1083	Sim	Hacton Ln	97.53	101.97	95.11	96.86	96.65	101.88	70.42	76.8
2126-36676	Sim	Ardleigh Grn Rd	99.81	102.87	117.44	118.91	109.86	109.98	116.06	115.04
2082-76339	Sim	Church Rd	54.92	113.86	36.45	123.37	44.57	193.83	39.23	130.07
1305-76339	Sim	A128 Bulphen By-Pass	24.51	100.45	17.37	72.44	29.37	73.61	17.86	80.32
81904-82490	Sim	A282	99.45	101.99	83.72	83.75	97.41	93.43	82.49	82.75
71310-82680	Sim	A127 Southend Arterial Rd On-Ramp	96.97	100.57	101.4	102.25	104.14	105.07	103.77	104.69
76233-87595	Sim	A128 Brentwood Rd	47.11	102.44	31.71	82.2	59.92	101.21	44.24	97.58
76236-87599	Sim	Brentwood Rd	60.6	106.88	22.71	50.4	34.2	62.57	41.5	88.1
76210-87619	Sim	A1013 Stanford Rd	74.55	113.58	32.79	61.99	41.35	90.07	36.15	64.98
95185-95186	Sim	B1335 Stifford Rd	44.24	102.43	32.89	37.63	39.76	48.14	40.58	48.53
99986-99987	Sim	Doesgate Ln	24.37	105.94	2.43	53.37	12.58	97.78	0.29	64.17
2082-1014	Sim	Fen Ln	17.68	30.37	11.47	41.93	12.17	129.91	9.52	50.54
40055-1078	Sim	Warwick Ln	100.94	70.08	65.5	70.06	74.25	105.97	41.88	46.07
1104-1084	Sim	Hall Ln	106.08	108.37	101.76	102.07	100	100.53	100.57	100.69
39501-19334	Sim	A12 Colchester Rd	89.84	92.88	98.4	98.89	97.61	100.26	96.64	98.4
34445-33481	Sim	A13 Thames Gateway	62.04	62.97	79.64	80.15	99.2	100.16	101.49	101.45
33495-40034	Sim	A13 Offramp	58.08	60.65	69.67	69.51	94.83	100.27	93.95	95.46
40033-40034	Sim	A1306 New Rd	82.61	83.67	74.65	79.97	95.87	102.16	89.99	98
40055-40045	Sim	Launder's Ln	74.67	80.19	61.86	66.71	89.33	106.39	68.76	72.73
75393-75394	Sim	Elizabeth Rd	93.32	93.35	72.23	74.45	99.16	100.37	78.54	79.17
76217-76225	Sim	A13 Stanford-le-Hope Byp On-Ramp	104.1	116.5	76.13	86.66	88.74	104.44	63.57	83.86
76278-76279	Sim	A13 / High Rd Off-Ramp	59.1	65.73	54.83	69.5	84.35	100.19	68.67	79.89
1086-80042	Sim	Bird Ln	79.96	89.28	69.63	69.87	96.39	100.29	66.19	63.96
27264-81994	Sim	Rennie Dr	139.45	108.94	148.4	147.8	58.07	118.94	170.18	170.31
82006-81991	Sim	Cotton Ln	109.3	111.65	102.65	102.66	103.27	102.49	58.7	102.39

83366-83367	Sim	Ship Ln	97.84	97.53	83.15	82.16	101.39	106.47	96.17	100.95
89959-95203	Sim	A126 W Thurrock Way	83.35	87.31	80.36	82.92	68.74	74.14	96.27	100.08
34506-34600	Buffer	Hornchurch Rd	99.96	100.11	101.15	101.07	102.77	102.65	99.34	99.49
34548-36899	Buffer	A1251 Mercury Gardens	109.51	109.93	99.76	100.13	84.39	85.32	79.96	80.39
32206-35507	Buffer	A21 High St	89.88	90.23	79.27	79.35	99.1	100.1	81.45	81.66
33450-33447	Buffer	On Ramp to A2 E Rochester Wy	67.73	64.71	78.53	78.83	97.12	100.96	88.55	88.47
33480-34640	Buffer	Bexley Rd	103.29	102.77	103.7	103.73	95.51	102.04	100.57	100.72
81882-81880	Buffer	A2 On-Ramp	100.81	100.78	98.94	99.32	100	100.06	102.18	102.11
95226-97627	Buffer	Rayleigh Rd	80.91	80.64	80.61	80.83	99.86	100.19	113.38	113.52
36902-36601	Buffer	A125 Rainham Rd	105.07	105.45	103.01	103.36	100.47	101.23	99.34	100.26
67272-67315	Buffer	High St	62.08	62.1	76.76	76.77	106.52	106.72	99.87	100.05
71752-71753	Buffer	A289 Vanguard Way	100.2	100.42	100.81	100.44	107.22	108.33	99.96	100.09
76007-76005	Buffer	A127 Southend Arterial Rd	80.95	82.59	89.33	89.93	104.15	104.64	99.74	101.09
76009-76007	Buffer	A127 Southend Arterial Rd	80.95	82.59	89.33	89.93	104.15	104.64	99.74	101.09

Table 6-11: Highest Link V/C

6.4 V/C Link Impact

A comparison of link volume-to-capacity (V/C) ratios was undertaken for the 2044 Without Local Plan and With Local Plan scenarios. **Figure 6-2** **Figure 6-5** illustrate the links that experience an increase into a higher V/C band, as defined in **Table 6-9** across the various peak periods. The analysis indicates that the A127, A13, M25, and a few other roads are most affected. However, as shown in **Table 6-11**, the overall impact on the network is relatively limited, with many links experiencing minimal changes. This suggests that while certain strategic corridors may see increased congestion under the Local Plan scenario, most of the network remains largely unaffected, maintaining similar traffic conditions to the Without Local Plan scenario.

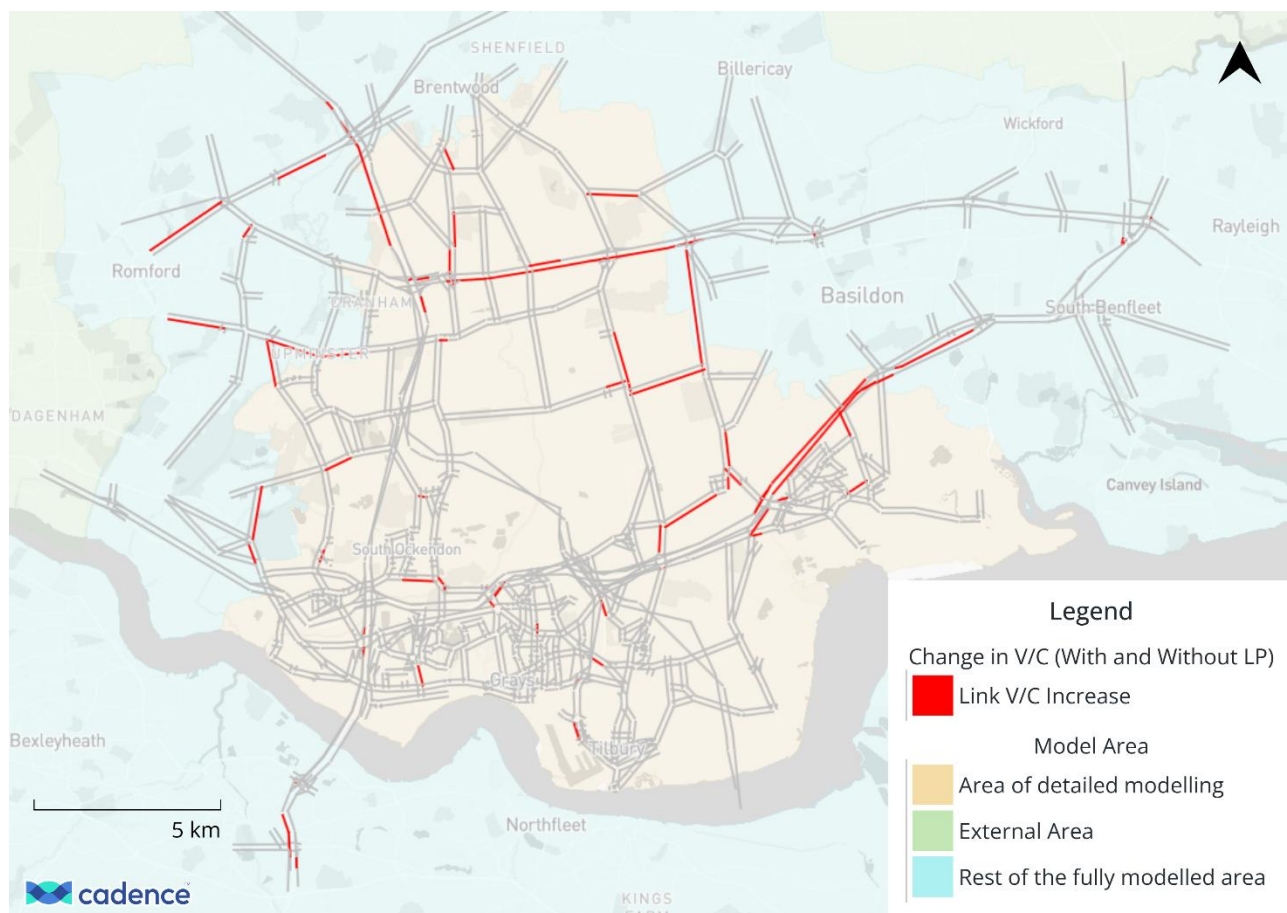


Figure 6-2: Change in Link V/C Bands Between Without LP and with LP Scenarios - AM Peak

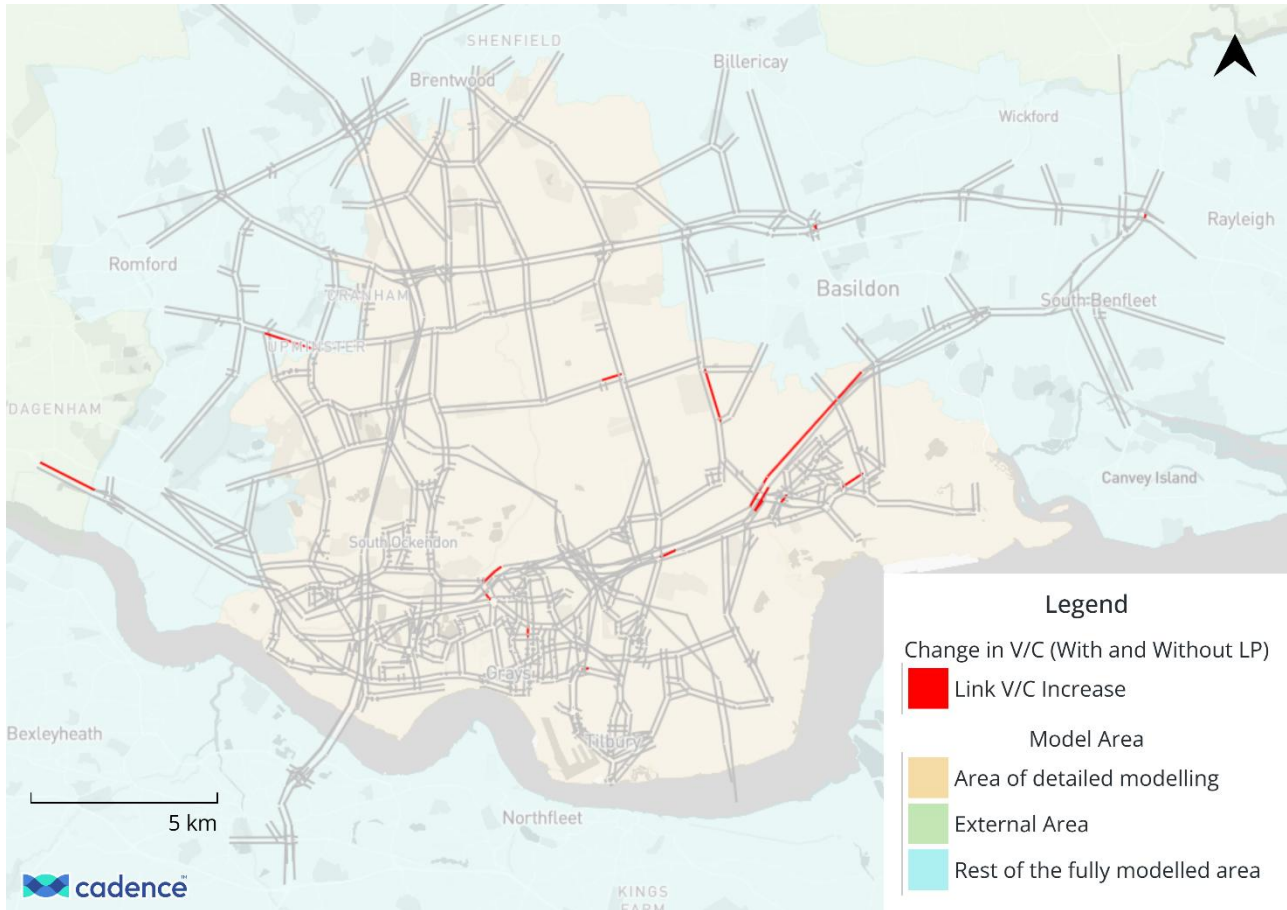


Figure 6-3: Change in Link V/C Bands Between Without LP and with LP Scenarios – Inter-Peak

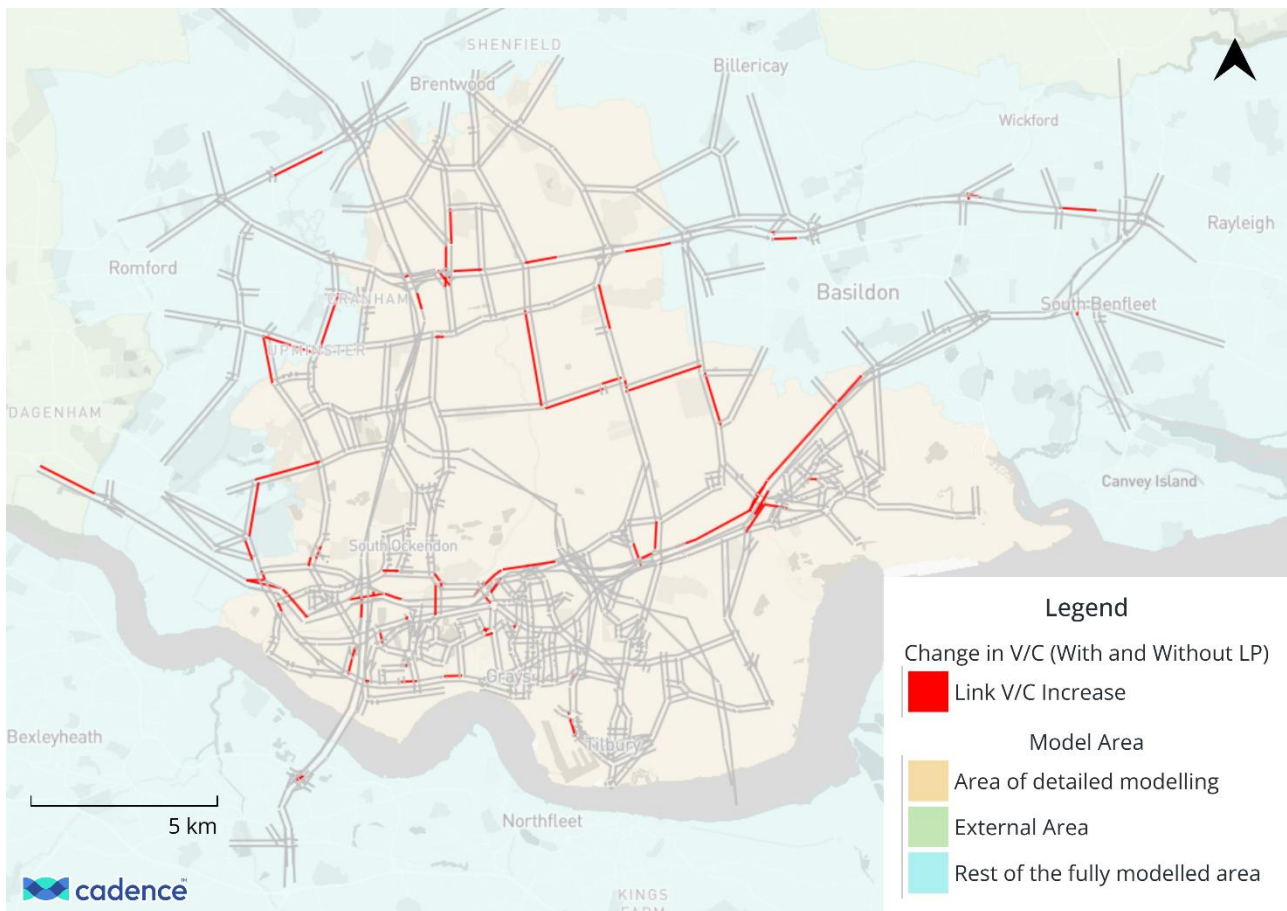


Figure 6-4: Change in Link V/C Bands Between Without LP and with LP Scenarios - PM Peak

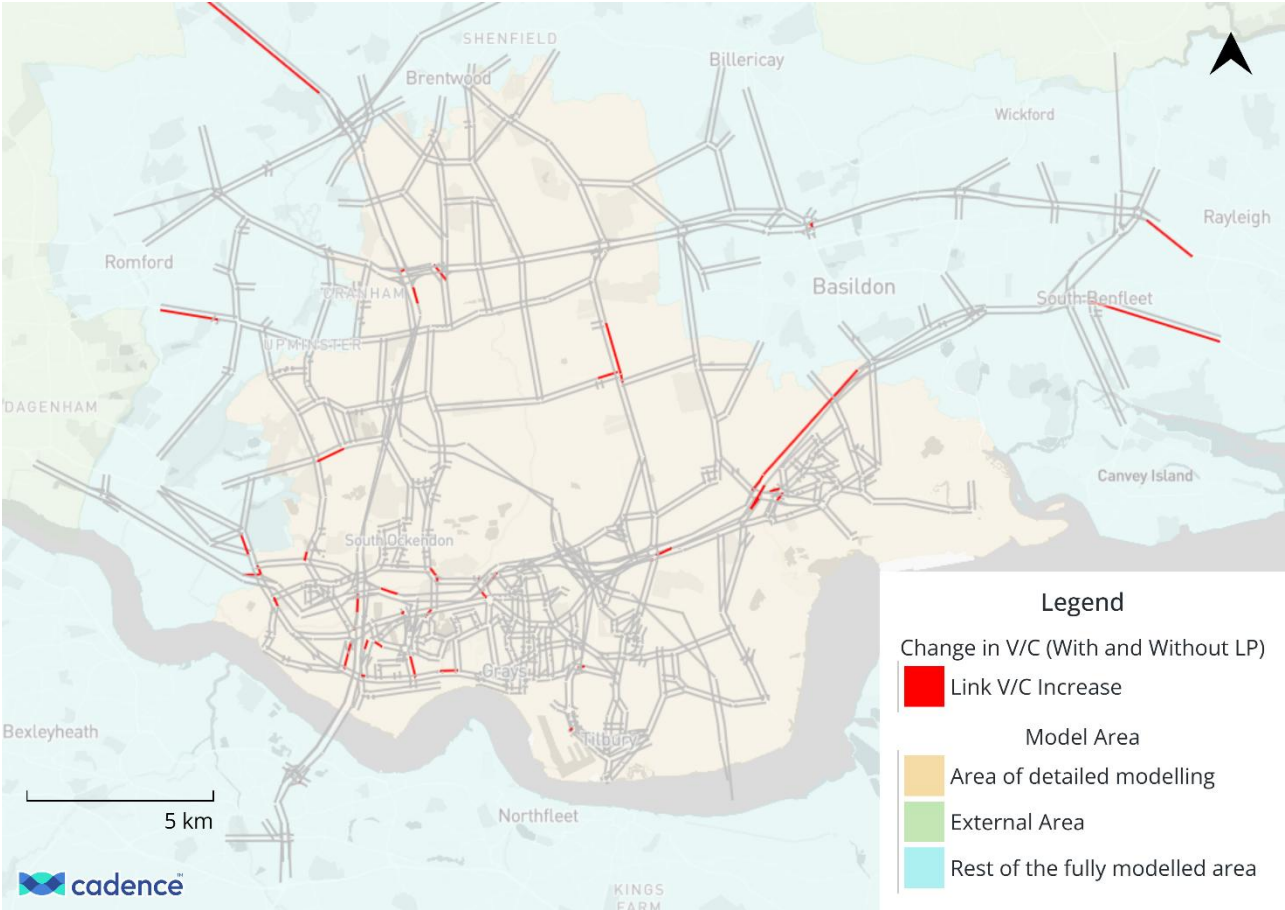


Figure 6-5: Change in Link V/C Bands Between Without LP and with LP Scenarios - SAT Peak

6.5 SRN Network Junctions

In addition to analysing changes in overall network performance and journey times across various scenarios and identifying locations where additional trips generated by the Local Plan may influence congestion, we carried out a detailed assessment of key Strategic Road Network (SRN) junctions. This assessment focused on Junctions 28, 29, and 30 of the M25.

The results of this analysis are presented in **Table 6-12** to **Table 6-15** which summarise the traffic flow in PCUs, delay in seconds, and V/C ratios for each junction under two scenarios: 2044 without the Local Plan and 2044 with the Local Plan. The colour bands shown in the below tables for V/C ratio follow the same convention presented in **Table 6-9**.

The findings indicate that the impact of the Local Plan on these junctions is generally minimal. While most movements show negligible changes, a slight increase in delay and V/C ratios is observed on a limited number of movements at specific junctions. This minimal impact is primarily due to the improved junction designs implemented for Junctions 28, 29, and 30 in the 2044 model, which effectively accommodate the additional traffic. Overall, the analysis suggests that the Local Plan does not significantly increase congestion at the assessed SRN junctions.

SRN Junctions (M25)	Description	A node	B node	C node	Without LP			With LP		
					Actual Flow	Delay	V/C	Actual Flow	Delay	V/C
Junction 28	Slip Road from SB M25 to EB A12	82814	82790	82686	942	0.51	44	987	0.53	46
	M25 SB Exit to Junction	82814	82790	82782	773	0.51	25	778	0.53	25
	Junction Exit to A12 EB	82782	82686	82876	393	1.35	23	394	1.35	23
	A12 WB Exit to Junction	88692	82679	82794	2141	1.23	59	2137	1.27	60
	Junction Exit to Brook St	82794	82708	71437	568	0	29	568	0	29
	Junction Entry from Brook St	71437	82708	82891	392	0	23	393	0	23
	Junction Exit to On Ramp M25 SB	82891	71306	82820	1880	41.51	100	1880	41.51	100
	M25 NB Off-Ramp to Junction	82677	71309	82796	1007	0	25	1028	0	26
	Junction Exit to WB A12 Colchester Rd	82796	34578	39501	1115	5.92	64	1121	5.95	65
	M25 NB to A12 WB	71309	82796	34578	512	378.4	115	527	440.42	118
	A12 EB to M25 NB	73653	82779	82839	1484	10.9	66	1497	10.98	67
	A 12 EB to Junction	73653	82779	82782	383	9.22	36	382	9.2	36
Junction 29	SB M25 Off-ramp to Junction	82776	82774	71310	1138	25.02	51	1145	24.99	51
	On-Ramp to A127 EB from Junction	82774	71310	82680	1678	0.81	43	1740	0.83	45
	WB Off-Ramp to Junction from A127	82681	83604	82771	1234	0.32	21	1296	0.35	23
	On ramp To SB M25 from Junction	82771	71311	83605	698	1.52	37	733	1.57	39
	M25 Off-ramp NB to Junction	83600	82798	71312	756	21.8	43	810	22.12	46

	On-Ramp to A127 EB from Junction	82798	71312	83601	191	1.07	10	186	1.06	10
	Off-Ramp from EB A127 to Junction	34565	82772	71313	985	23.3	56	997	23.39	57
	Off-Ramp to M25 NB From Junction	82772	71313	82885	1562	2.34	67	1606	2.48	69
	Slip Road from WB A127 to SB M25	82681	83604	83605	802	0.32	44	1004	0.35	55
	Slip Road from M25 NB to WB A127	83653	83600	83601	973	0.31	53	959	0.31	52
	M25 Junction to B186 (New Scheme)	82774	1302	1301	88	8.49	13	78	8.44	11
Junction 30	Slip Road from M25 SB to EB A13	88649	77930	88846	1285	0	67	1454	0	75
	Off Ramp from M25 To Junction	82663	82719	71314	1064	19.97	48	1086	20.09	49
	Junction to EB A13	82719	71314	88846	823	0.58	21	837	0.59	21
	Offramp WB A13 to Junction	82661	82707	71315	1681	11.07	40	1782	11.27	42
	On Ramp to SB M25 from Junction	82707	71315	82658	1961	0.93	50	2089	0.99	54
	Off Ramp from M25 NB to Junction	82655	82656	82706	1909	1.34	59	1917	1.37	59
	On Ramp to A13 WB from Junction	82706	71316	77925	2079	0.99	53	2058	0.98	53
	Slip Road from A13 EB to M25 NB	82654	88844	88652	929	2.24	54	923	2.23	53
	A13 EB Off ramp to Junction	82654	88844	82659	416	0.51	11	412	0.51	11
	On Ramp from Junction to NB M25	82659	71317	88661	937	0.61	24	966	0.61	25
Junction 31	From Ship Lane to Junction	88614	83366	83367	542	0	39	607	0	43
	from junction to Ship Lane	83368	83366	88614	597	0	30	648	0	33
	A1306 Arterial Rd EB to Junction	88601	82644	82705	782	0	47	761	0	45
	Junction to WB A1306 Arterial Road	71443	82644	88601	642	0	16	690	0	17
	Stonehouse Ln to Junction	75375	83245	82704	789	0	45	838	0	47
	Junctions exit to Stonehouse Ln	71442	83245	75375	765	0	41	776	0	42
	Exit Ramp NB A282 To Junction	94974	82646	82650	1529	2.24	66	1286	1.72	55
	Junction Exit to SB A282	71441	82647	82862	1708	2.88	73	1746	3.07	75
	Junction Exit NB towards Mardyke Junction	82649	83408	82656	729	14.6	67	752	15.1	69
	Junction Entry (SB) From Mardyke Junction	82658	88671	82703	561	0.46	14	662	0.49	17
	Junction Exit to EB Arterial Rd A1306	82703	71440	82718	1162	0.66	30	1035	0.63	27
	Junction Entry (WB) From Arterial Rd A1306	82718	82648	71441	1403	20.38	48	1494	20.87	51

Table 6-12: SRN Junction Performance – AM Peak

SRN Junctions (M25)	Description	A node	B node	C node	Without LP			With LP		
					Actual Flow	Delay	V/C	Actual Flow	Delay	V/C
Junction 28	Slip Road from SB M25 to EB A12	82814	82790	82686	1496	0.75	70	1505	0.75	71
	M25 SB Exit to Junction	82814	82790	82782	802	0.75	31	798	0.75	31
	Junction Exit to A12 EB	82782	82686	82876	124	1.12	7	102	1.11	6
	A12 WB Exit to Junction	88692	82679	82794	1628	0.79	42	1650	0.81	43
	Junction Exit to Brook St	82794	82708	71437	583	0	29	583	0	29
	Junction Entry from Brook St	71437	82708	82891	1053	0	63	1075	0	64
	Junction Exit to On Ramp M25 SB	82891	71306	82820	1636	7.19	87	1679	8.61	89
	M25 NB Off-Ramp to Junction	82677	71309	82796	893	0	22	896	0	22
	Junction Exit to WB A12 Colchester Rd	82796	34578	39501	1739	55.94	101	1754	70.85	101
	M25 NB to A12 WB	71309	82796	34578	489	284.66	110	486	274.9	109
	A12 EB to M25 NB	73653	82779	82839	1460	10.73	65	1468	10.79	66
	A 12 EB to Junction	73653	82779	82782	568	11.15	53	558	11.01	52
Junction 29	SB M25 Off-ramp to Junction	82776	82774	71310	1304	26.38	60	1298	26.34	59
	On-Ramp to A127 EB from Junction	82774	71310	82680	1754	0.84	45	1769	0.84	45
	WB Off-Ramp to Junction from A127	82681	83604	82771	1119	0.3	19	1111	0.31	19
	On ramp To SB M25 from Junction	82771	71311	83605	751	1.59	40	739	1.58	39
	M25 Off-ramp NB to Junction	83600	82798	71312	765	21.85	44	803	22.07	46
	On-Ramp to A127 EB from Junction	82798	71312	83601	255	1.11	14	256	1.11	14
	Off-Ramp from EB A127 to Junction	34565	82772	71313	1030	23.64	59	1006	23.45	57
	Off-Ramp to M25 NB From Junction	82772	71313	82885	1449	2.04	62	1431	2	61
	Slip Road from WB A127 to SB M25	82681	83604	83605	707	0.3	39	797	0.31	44
	Slip Road from M25 NB to WB A127	83653	83600	83601	696	0.28	38	704	0.29	38
	M25 Junction to B186 (New Scheme)	82774	1302	1301	141	8.78	20	155	8.87	23
Junction 30	Slip Road from M25 SB to EB A13	88649	77930	88846	1390	0	72	1447	0	75
	Off Ramp from M25 To Junction	82663	82719	71314	1190	20.67	53	1202	20.74	54
	Junction to EB A13	82719	71314	88846	970	0.61	25	1039	0.63	27
	Offramp WB A13 to Junction	82661	82707	71315	1831	11.37	43	1906	11.54	45
	On Ramp to SB M25 from Junction	82707	71315	82658	1941	0.92	50	1900	0.9	49

	Off Ramp from M25 NB to Junction	82655	82656	82706	2060	1.38	61	2035	1.37	61
	On Ramp to A13 WB from Junction	82706	71316	77925	2103	1	54	2086	0.99	53
	Slip Road from A13 EB to M25 NB	82654	88844	88652	814	1.96	47	818	1.97	47
	A13 EB Off ramp to Junction	82654	88844	82659	476	0.52	12	472	0.52	12
	On Ramp from Junction to NB M25	82659	71317	88661	1158	0.66	30	1229	0.67	32
Junction 31	From Ship Lane to Junction	88614	83366	83367	488	0	35	503	0	36
	from junction to Ship Lane	83368	83366	88614	592	0	30	663	0	34
	A1306 Arterial Rd EB to Junction	88601	82644	82705	803	0	48	772	0	46
	Junction to WB A1306 Arterial Road	71443	82644	88601	691	0	17	703	0	18
	Stonehouse Ln to Junction	75375	83245	82704	668	0	38	743	0	42
	Junction exit to Stonehouse Ln	71442	83245	75375	874	0	47	875	0	47
	Exit Ramp NB A282 To Junction	94974	82646	82650	1493	2.14	64	1506	2.18	65
	Junction Exit to SB A282	71441	82647	82862	1696	2.83	73	1667	2.71	72
	Junction Exit NB towards Mardyke Junction	82649	83408	82656	619	10.93	54	641	11.19	55
	Junction Entry (SB) From Mardyke Junction	82658	88671	82703	821	0.54	21	813	0.54	20
	Junction Exit to EB Arterial Rd A1306	82703	71440	82718	1176	0.66	30	1132	0.65	29
	Junction Entry (WB) From Arterial Rd A1306	82718	82648	71441	1376	20.24	47	1344	20.08	46

Table 6-13: SRN Junction Performance – Inter-peak

SRN Junctions (M25)	Description	A node	B node	C node	Without LP			With LP		
					Actual Flow	Delay	V/C	Actual Flow	Delay	V/C
Junction 28	Slip Road from SB M25 to EB A12	82814	82790	82686	1433	0.74	67	1440	0.74	68
	M25 SB Exit to Junction	82814	82790	82782	899	0.74	34	883	0.74	33
	Junction Exit to A12 EB	82782	82686	82876	166	1.15	10	109	1.11	6
	A12 WB Exit to Junction	88692	82679	82794	1518	0.76	39	1681	0.84	44
	Junction Exit to Brook St	82794	82708	71437	587	0	30	587	0	30
	Junction Entry from Brook St	71437	82708	82891	984	0	59	856	0	51
	Junction Exit to On Ramp M25 SB	82891	71306	82820	1401	3.73	74	1489	4.56	79
	M25 NB Off-Ramp to Junction	82677	71309	82796	880	0	22	944	0	24
	Junction Exit to WB A12 Colchester Rd	82796	34578	39501	1691	30.6	98	1702	34.16	98

	M25 NB to A12 WB	71309	82796	34578	481	254.23	108	488	280.04	110
	A12 EB to M25 NB	73653	82779	82839	1374	10.21	62	1404	10.39	63
	A 12 EB to Junction	73653	82779	82782	502	10.36	47	488	10.2	46
Junction 29	SB M25 Off-ramp to Junction	82776	82774	71310	1510	27.98	69	1425	27.24	65
	On-Ramp to A127 EB from Junction	82774	71310	82680	1802	0.86	46	1818	0.86	47
	WB Off-Ramp to Junction from A127	82681	83604	82771	1118	0.33	20	1165	0.37	22
	On ramp To SB M25 from Junction	82771	71311	83605	734	1.57	39	789	1.65	42
	M25 Off-ramp NB to Junction	83600	82798	71312	759	21.81	43	883	22.58	50
	On-Ramp to A127 EB from Junction	82798	71312	83601	231	1.09	12	216	1.08	11
	Off-Ramp from EB A127 to Junction	34565	82772	71313	957	23.09	55	1015	23.52	58
	Off-Ramp to M25 NB From Junction	82772	71313	82885	1376	1.88	59	1430	2	61
	Slip Road from WB A127 to SB M25	82681	83604	83605	940	0.33	51	1185	0.37	65
	Slip Road from M25 NB to WB A127	83653	83600	83601	1065	0.33	58	1043	0.33	57
	M25 Junction to B186 (New Scheme)	82774	1302	1301	298	10.09	43	335	10.56	49
Junction 30	Slip Road from M25 SB to EB A13	88649	77930	88846	1038	0	54	1139	0	59
	Off Ramp from M25 To Junction	82663	82719	71314	1107	20.2	50	1237	20.95	56
	Junction to EB A13	82719	71314	88846	892	0.6	23	1007	0.62	26
	Offramp WB A13 to Junction	82661	82707	71315	1838	11.39	43	2065	11.9	49
	On Ramp to SB M25 from Junction	82707	71315	82658	2303	1.13	59	2435	1.23	62
	Off Ramp from M25 NB to Junction	82655	82656	82706	1819	1.25	56	1832	1.31	57
	On Ramp to A13 WB from Junction	82706	71316	77925	1811	0.86	46	1811	0.86	46
	Slip Road from A13 EB to M25 NB	82654	88844	88652	857	2.06	50	912	2.2	53
	A13 EB Off ramp to Junction	82654	88844	82659	480	0.52	12	483	0.52	12
	On Ramp from Junction to NB M25	82659	71317	88661	958	0.61	25	1136	0.65	29
Junction 31	From Ship Lane to Junction	88614	83366	83367	502	0	36	449	0	32
	from junction to Ship Lane	83368	83366	88614	692	0	35	844	0	43
	A1306 Arterial Rd EB to Junction	88601	82644	82705	1072	0	64	1061	0	63
	Junction to WB A1306 Arterial Road	71443	82644	88601	607	0	15	735	0	19
	Stonehouse Ln to Junction	75375	83245	82704	686	0	39	821	0	46
	Junction exit to Stonehouse Ln	71442	83245	75375	838	0	45	941	0	51

	Exit Ramp NB A282 To Junction	94974	82646	82650	1318	1.78	57	1622	2.53	70
	Junction Exit to SB A282	71441	82647	82862	2109	7.82	91	2070	6.72	89
	Junction Exit NB towards Mardyke Junction	82649	83408	82656	726	3.99	46	780	4.22	49
	Junction Entry (SB) From Mardyke Junction	82658	88671	82703	988	0.58	25	1115	0.61	28
	Junction Exit to EB Arterial Rd A1306	82703	71440	82718	1021	0.63	26	1169	0.66	30
	Junction Entry (WB) From Arterial Rd A1306	82718	82648	71441	1435	20.55	49	1497	20.89	51

Table 6-14: SRN Junction Performance - PM Peak

SRN Junctions (M25)	Description	A node	B node	C node	Without LP			With LP		
					Actual Flow	Delay	V/C	Actual Flow	Delay	V/C
Junction 28	Slip Road from SB M25 to EB A12	82814	82790	82686	1569	0.82	74	1584	0.83	75
	M25 SB Exit to Junction	82814	82790	82782	868	0.82	34	871	0.83	35
	Junction Exit to A12 EB	82782	82686	82876	290	1.25	17	291	1.25	17
	A12 WB Exit to Junction	88692	82679	82794	1129	0.64	29	1136	0.65	29
	Junction Exit to Brook St	82794	82708	71437	565	0	29	565	0	29
	Junction Entry from Brook St	71437	82708	82891	1348	0	80	1366	0	81
	Junction Exit to On Ramp M25 SB	82891	71306	82820	1323	3.22	70	1371	3.52	73
	M25 NB Off-Ramp to Junction	82677	71309	82796	754	0	19	780	0	20
	Junction Exit to WB A12 Colchester Rd	82796	34578	39501	1715	39.18	99	1722	42.28	100
	M25 NB to A12 WB	71309	82796	34578	459	164.65	103	461	173.45	104
	A12 EB to M25 NB	73653	82779	82839	1506	11.05	67	1508	11.06	67
	A 12 EB to Junction	73653	82779	82782	605	11.66	57	604	11.64	57
Junction 29	SB M25 Off-ramp to Junction	82776	82774	71310	1662	31.21	80	1648	30.9	79
	On-Ramp to A127 EB from Junction	82774	71310	82680	1795	0.85	46	1811	0.86	46
	WB Off-Ramp to Junction from A127	82681	83604	82771	1702	0.45	28	1760	0.35	30
	On ramp To SB M25 from Junction	82771	71311	83605	907	1.85	48	914	1.86	49
	M25 Off-ramp NB to Junction	83600	82798	71312	526	20.58	30	559	20.74	32
	On-Ramp to A127 EB from Junction	82798	71312	83601	235	1.09	12	238	1.1	13
	Off-Ramp from EB A127 to Junction	34565	82772	71313	1345	27.05	77	1348	27.09	77
	Off-Ramp to M25 NB From Junction	82772	71313	82885	2171	10.51	93	2226	14.69	96

	Slip Road from WB A127 to SB M25	82681	83604	83605	672	0.45	37	805	0.35	44
	Slip Road from M25 NB to WB A127	83653	83600	83601	709	0.27	39	742	0.28	41
	M25 Junction to B186 (New Scheme)	82774	1302	1301	338	10.6	49	332	10.51	48
Junction 30	Slip Road from M25 SB to EB A13	88649	77930	88846	1044	0	54	1153	0	60
	Off Ramp from M25 To Junction	82663	82719	71314	741	18.45	33	756	18.51	34
	Junction to EB A13	82719	71314	88846	670	0.56	17	702	0.56	18
	Offramp WB A13 to Junction	82661	82707	71315	1977	11.69	47	2066	11.9	49
	On Ramp to SB M25 from Junction	82707	71315	82658	2082	0.99	53	2156	1.03	55
	Off Ramp from M25 NB to Junction	82655	82656	82706	2021	1.15	56	2046	1.19	58
	On Ramp to A13 WB from Junction	82706	71316	77925	2146	1.03	55	2145	1.03	55
	Slip Road from A13 EB to M25 NB	82654	88844	88652	813	1.96	47	829	2	48
	A13 EB Off ramp to Junction	82654	88844	82659	482	0.52	12	479	0.52	12
	On Ramp from Junction to NB M25	82659	71317	88661	718	0.57	18	771	0.58	20
Junction 31	From Ship Lane to Junction	88614	83366	83367	556	0	40	569	0	41
	from junction to Ship Lane	83368	83366	88614	667	0	34	697	0	35
	A1306 Arterial Rd EB to Junction	88601	82644	82705	923	0	55	922	0	55
	Junction to WB A1306 Arterial Road	71443	82644	88601	494	0	12	505	0	13
	Stonehouse Ln to Junction	75375	83245	82704	423	0	24	476	0	27
	Junctions exit to Stonehouse Ln	71442	83245	75375	740	0	40	783	0	42
	Exit Ramp NB A282 To Junction	94974	82646	82650	1800	3.37	77	1781	3.26	76
	Junction Exit to SB A282	71441	82647	82862	2007	5.47	86	2039	6.04	88
	Junction Exit NB towards Mardyke Junction	82649	83408	82656	403	8.93	35	432	9.15	37
	Junction Entry (SB) From Mardyke Junction	82658	88671	82703	604	0.52	15	660	0.53	17
	Junction Exit to EB Arterial Rd A1306	82703	71440	82718	1401	0.72	36	1411	0.72	36
	Junction Entry (WB) From Arterial Rd A1306	82718	82648	71441	1408	20.41	48	1464	20.71	50

Table 6-15: SRN Junction Performance - SAT Peak

6.6 Zone Trip End Differences

In this section, we compare the trip-end changes between the 2044 With Local Plan and 2044 Without Local Plan scenarios to identify the locations experiencing the greatest impacts from the Local Plan. The figure below identifies the model base zoning system number.

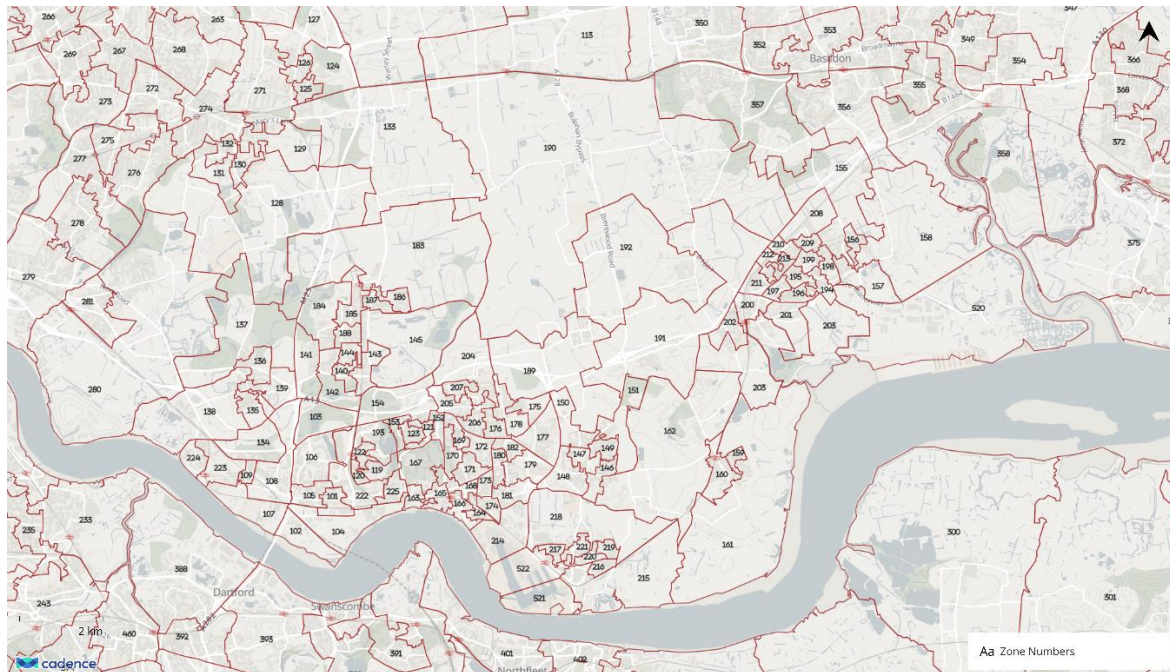


Figure 6-6: Model Base Zoning System

Figure 6-7 to Figure 6-14 present the spatial distribution of trip-end differences (both origins and destinations) between the 2044 Local Plan scenario and the 2044 Without Local Plan scenario across all peak periods. These plots illustrate the net change in travel demand resulting from the Local Plan growth assumptions. The comparison is based on the base zoning system, with development trips assigned to the zone in which each development is located. As shown, the West Horndon area experiences the most significant change across all time periods.

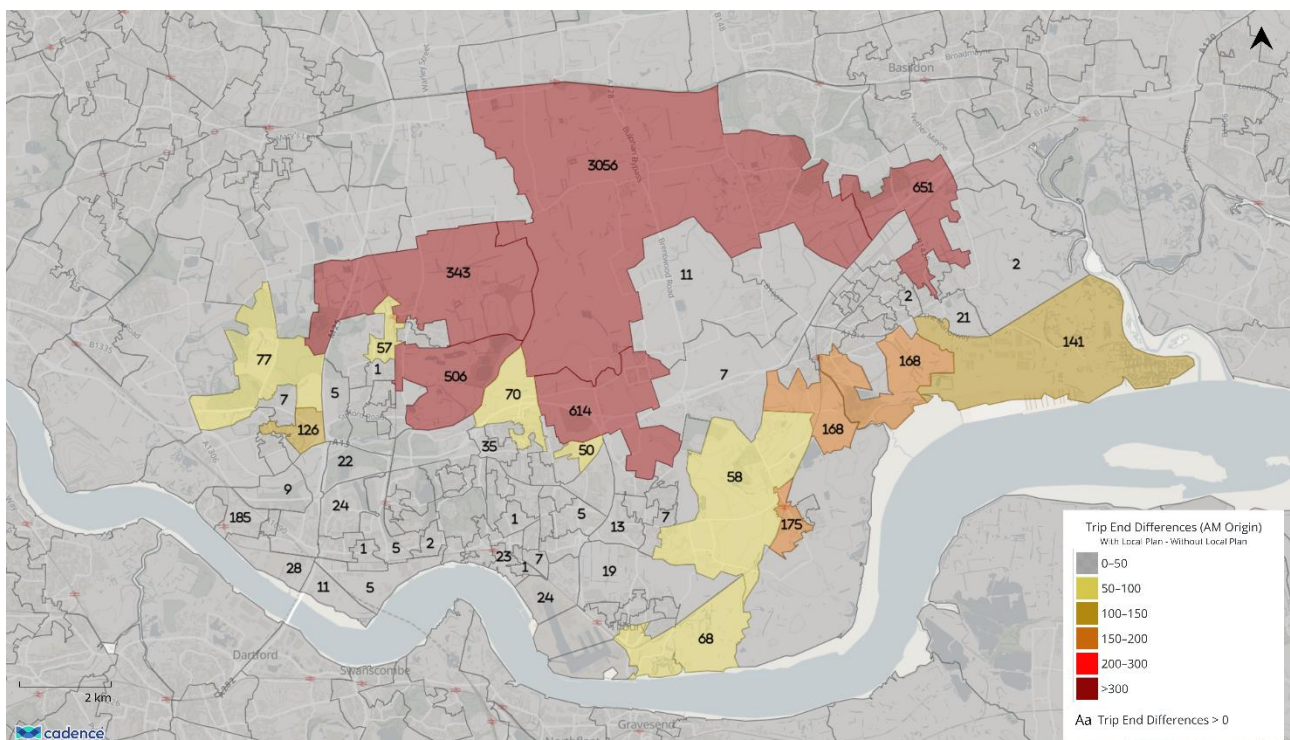


Figure 6-7: Trip-End Differences Origin – AM Peak



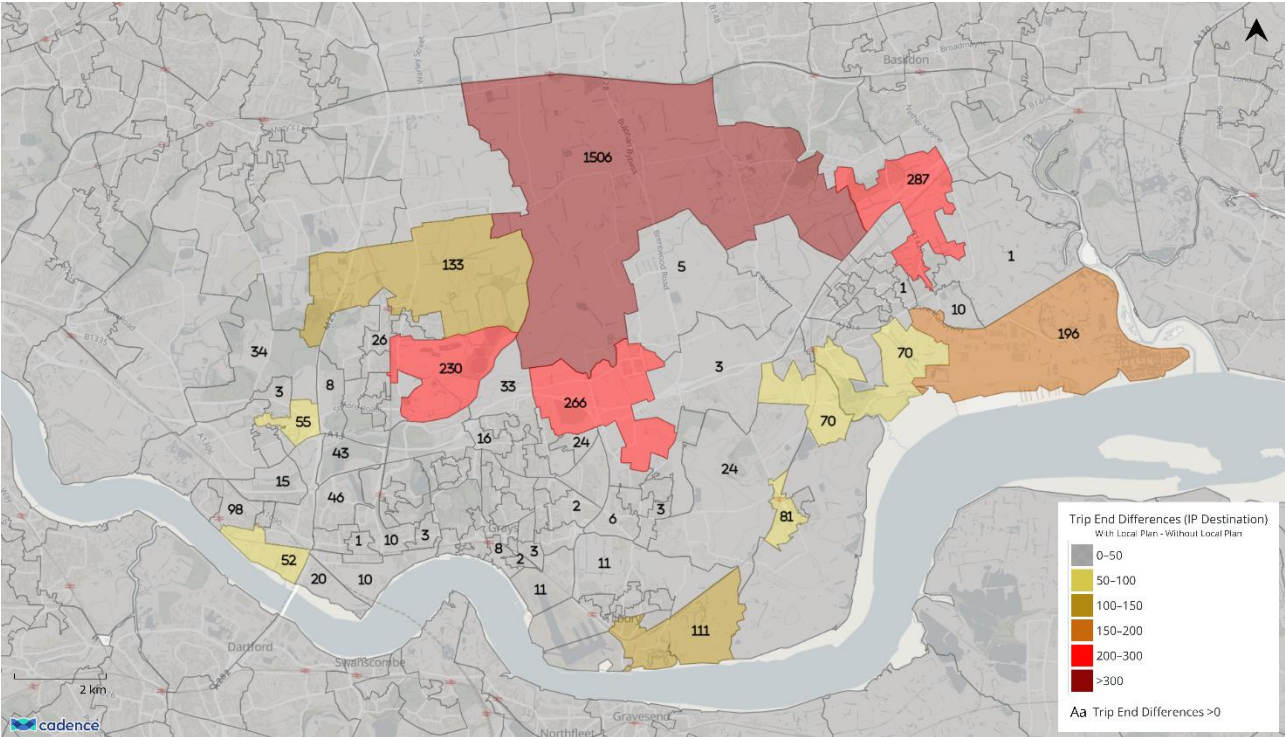


Figure 6-10: Trip-End Differences Destination – Inter-peak

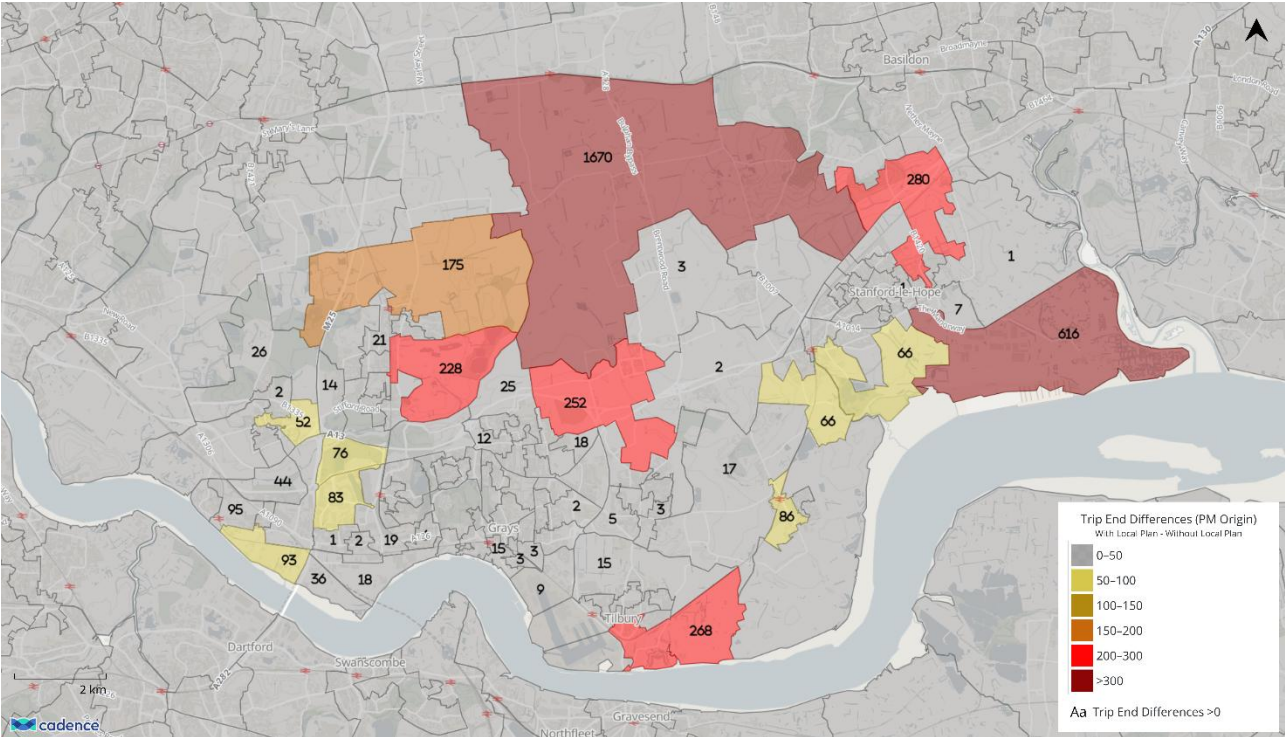


Figure 6-11: Trip-End Differences Origin – PM Peak

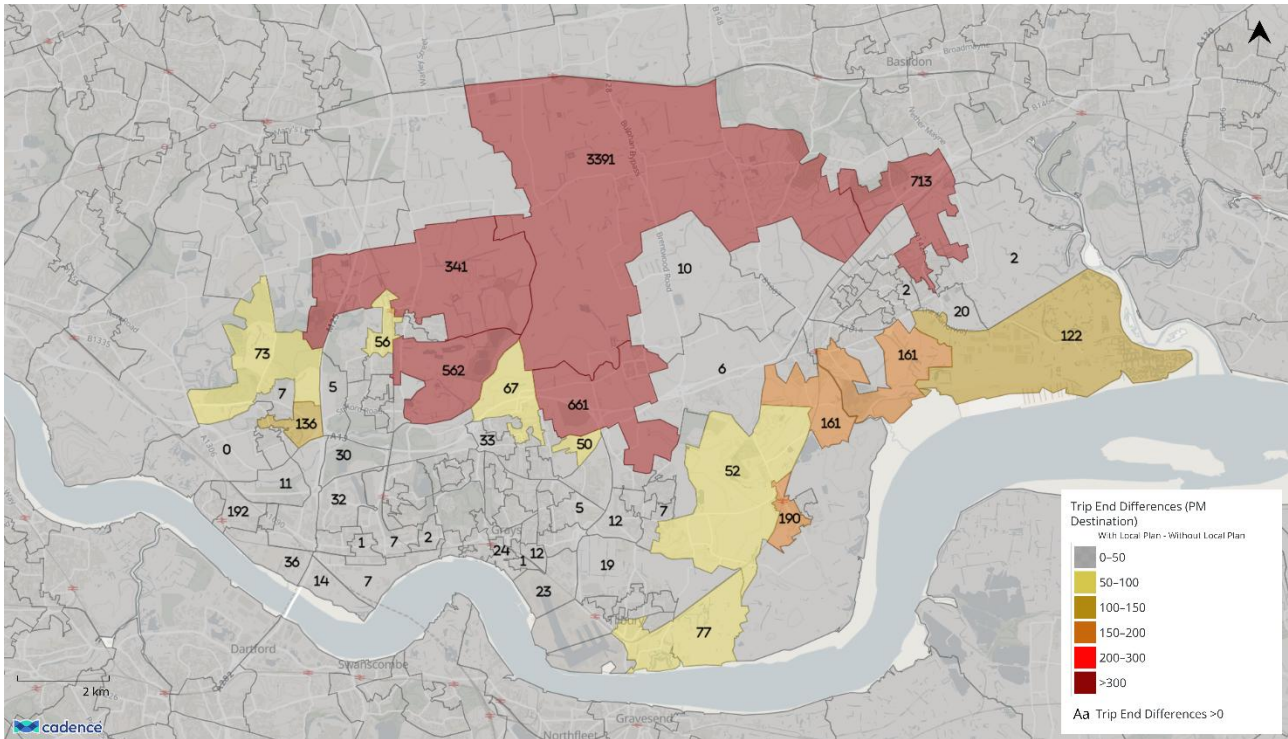


Figure 6-12: Trip-End Differences Destination – PM Peak

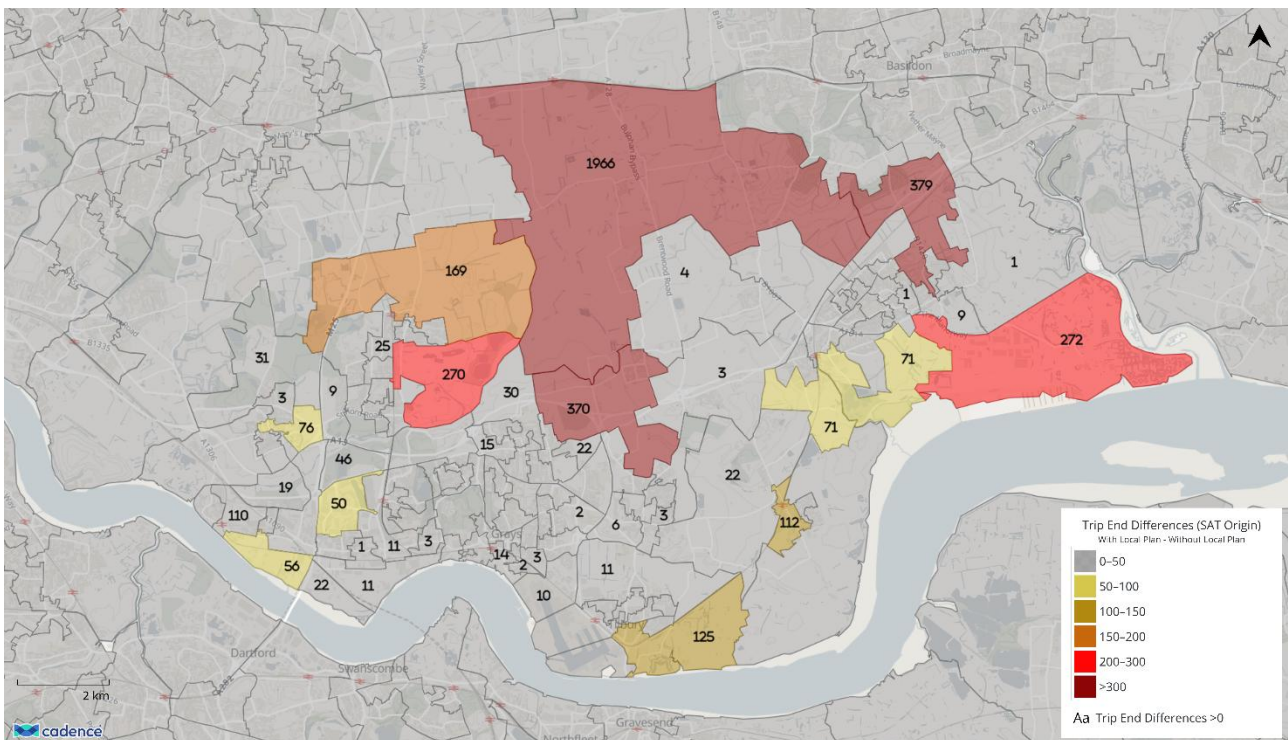


Figure 6-13: Trip-End Differences Origin – Saturday Peak

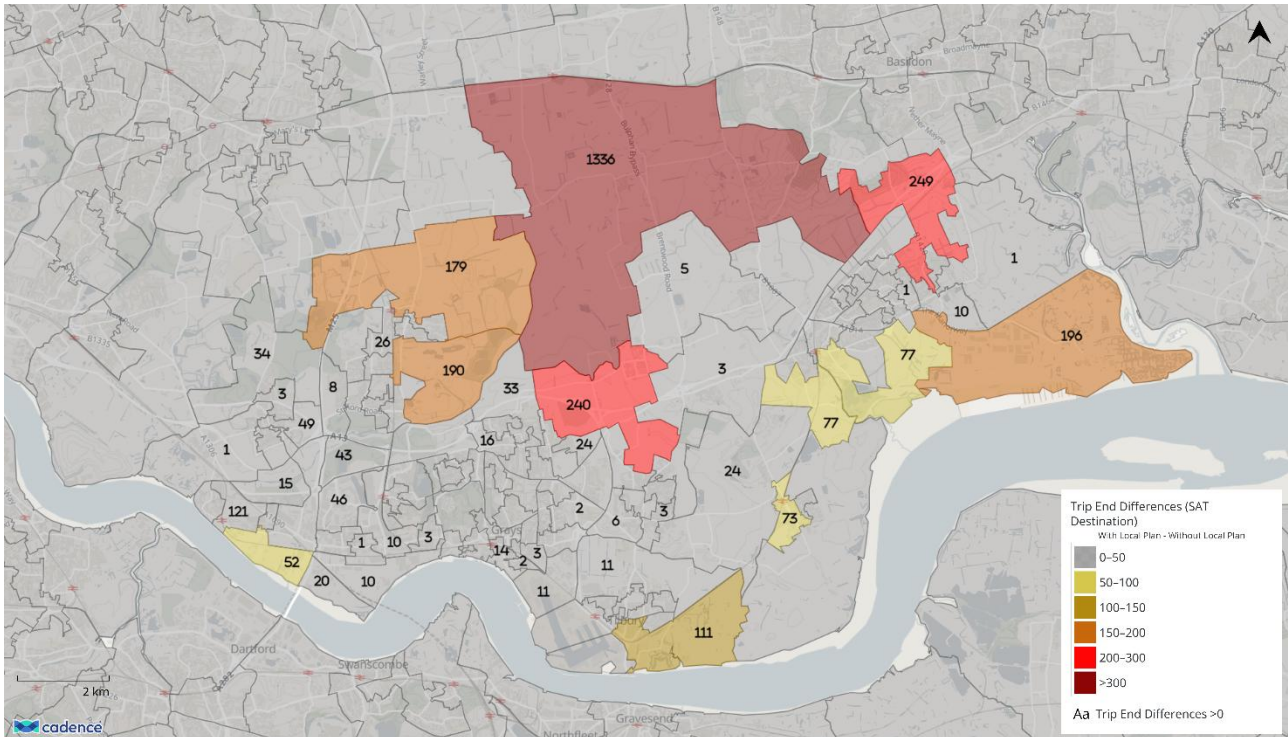


Figure 6-14: Trip-End Differences Destination - Saturday Peak

Detailed information on car trip ends for all zones in the forecast year 2044 is provided in **Appendix F – Car Trip Ends by Zone for Forecast Year 2044 (With and Without LP Scenarios)**. The comparison is based on base year zoning system. More information regarding PT trip ends is listed in **Appendix G – Public Transport Trip Ends by Zone for Forecast Year 2044 (With and Without LP Scenarios)**.

6.7 Public Transport Demand

A comparison of PT demand for bus and rail services was undertaken for the two 2044 forecast scenarios: Without Local Plan and With Local Plan. This assessment covered all peak periods, and the results are summarised in **Table 6-16**, which presents the forecast total boardings for each mode under both scenarios within the Thurrock area only.

The analysis shows that the most significant increases in PT demand occur on the bus network. This is largely due to the location of the Local Plan development sites, many of which are situated close to existing bus routes and within zones that benefit from stronger bus connectivity. As a result, the introduction of the Local Plan generates considerably higher growth in bus trips compared with rail, with the increase in bus demand consistently exceeding the increases observed for rail services.

Bus and Rail Boardings for 2044 Forecast Scenarios				
Peak Period	Mode	Without LP	With LP	% Difference
AM	Bus	6608	10500	59%
	Rail	12920	15430	19%
IP	Bus	4359	4936	13%
	Rail	6065	6170	2%
PM	Bus	6761	11385	68%
	Rail	14875	18345	23%
SAT	Bus	3744	4229	13%
	Rail	8374	8521	2%

Table 6-16: PT Comparison by Mode for the Two Forecast Scenarios Across All Peaks

Table 6-17 and **Table 6-18** detail information about the bus and rail lines boarding the model.

Line	Route	Direction
b100I	100	Inbound
b100O	100	Outbound
b11I	11	Inbound
b11O	11	Outbound
b200I	200	Inbound
b200O	200	Outbound
b22I	22	Inbound
b22O	22	Outbound
b25I	25	Inbound
b25O	25	Outbound
b265I	265	Inbound
b265O	265	Outbound
b269I	269	Inbound
b269O	269	Outbound
b32I	32	Inbound
b32O	32	Outbound
b33L	33	Loop
b347L	347	Loop
b370I	370	Inbound
b370O	370	Outbound
b372I	372	Inbound
b372O	372	Outbound
b374I	374	Inbound
b374O	374	Outbound

b44I	44	Inbound
b44O	44	Outbound
b51I	51	Inbound
b51O	51	Outbound
b565L	565	Loop
b66I	66	Inbound
b66O	66	Outbound
b73I	73	Inbound
b73O	73	Outbound
b73AI	73A	Inbound
b73AO	73A	Outbound
b83I	83	Inbound
b83O	83	Outbound
b88I	88	Inbound
b88O	88	Outbound
b88AI	88A	Inbound
b88AO	88A	Outbound
b99I	99	Inbound
b99O	99	Outbound
bX80I	X80	Inbound
bX80O	X80	Outbound
bZ1I	Z1	Inbound
bZ1O	Z1	Outbound
bZ2I	Z2	Inbound
bZ2O	Z2	Outbound
bZ4I	Z4	Inbound
bZ4O	Z4	Outbound

Table 6-17: Model Bus Line Information

Line	Transit Line Origin & Destination
rGra1_1	Fenchurch to Pitsea
rGra2_1	Fenchurch to Pitsea
rGra3_1	Fenchurch to Pitsea
rGra4_1	Fenchurch to Pitsea
rGra5_2	Grays to Fenchurch
rGra6_2	Grays to Fenchurch
rLai1_1	Fenchurch to Laindon
rLai1_2	Fenchurch to Laindon
rLei1_2	Leigh to Fenchurch
rPits3_1	Fenchurch to Pitsea
rPits3_2	Pitsea to Fenchurch
rPts1_1	Fenchurch to Pitsea
rPts2_1	Fenchurch to Pitsea
rPts2_2	Pitsea to Fenchurch
rShb1_1	Fenchurch to Shoeburyness
rShb1_2	Shoeburyness to Fenchurch
rShb2_1	Fenchurch to Shoeburyness

rShb2_2	Shoeburyness to Fenchurch
rShb3_1	Fenchurch to Shoeburyness
rShb3_2	Shoeburyness to Fenchurch
rShb4_1	Fenchurch to Shoeburyness
rShb5_1	Fenchurch to Shoeburyness
rShb5_2	Shoeburyness to Fenchurch
rStc1_1	Fenchurch to Shoeburyness
rStc1_2	Stanford Le Hope to Fenchurch
rStc2_1	Fenchurch to Stanford Le Hope
rStc2_2	Stanford Le Hope to Fenchurch

Table 6-18: Model Rail Line Information

Appendix H – Public Transport Demand by Bus and Rail Line presents a more detailed breakdown of public transport demand, showing results by individual bus and rail lines for each peak period.

6.8 Model Convergence

Convergence is a critical aspect of any transport model, as it demonstrates that the model has reached a stable solution and that the assignment results are both reliable and consistent. Good convergence ensures that network flows, journey times and generalised costs are not fluctuating between iterations, which provides confidence in the interpretation of the model outputs.

For user equilibrium assignment, SATURN uses the following measures of convergence:

- Proximity to the assignment objective. This shows how close the model is to a particular converged solution, measured using the Delta (or Gap) function.
- Stability of model outputs between consecutive iterations, demonstrated by measuring the level of flow change on links between iterations.

TAG contains recommendations for measuring model convergence in **Table 6-19**:

Measure of Convergence	Base Model Acceptable Values
Delta and %GAP	Less than 0.1% or at least stable with convergence fully documented and all other criteria met
Percentage of links with flow change (P)<1%	Four consecutive iterations greater than 98%
Percentage of links with cost change (P2) <1%	Four consecutive iterations greater than 98%
Percentage change in total user costs (V)	Four consecutive iterations less than 0.1% (SUE only)

Table 6-19: TAG Measure of Convergence

Table 6-20 sets out the Target Convergence Criteria obtained from the SATURN highways assignments.

Convergence Criteria	Abbreviation	TAG
Wardrop Equilibrium Gap Function Post Simulation	%GAP	under 0.1%
Delta Function (%) / Number of Iterations	ASS.	under 0.1%
Final Average Absolute Change in Outbound Converged Flow Pattern (PCU/HR) / Number of Iterations	SIM.	under 0.1%
Last 4 iterations		
Link Flows Differing by <1% between Assignment-Simulation Loops	Flow%	over 98%
Turn Delays differing by <1% between Assignment-Simulation Loops	%Delays	over 98%

Table 6-20: Convergence Criteria for the Highway Assignments

In this assessment, both the 2044 without Local Plan and with Local Plan models achieve very strong convergence statistics, indicating that the models have settled to stable network conditions and that

the results can be used with confidence for forecasting purposes. The convergence statistics for both models are presented in **Table 6-21** and **Table 6-22**.

Forecast Year 2044 Without Local Plan					
AM					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
25	0.0086/10	0.021/ 3	98.9	99.4	0.006
26	0.0073/10	0.021/ 8	99.2	99.4	0.0073
27	0.0058/10	0.020/ 8	99.1	99.4	0.0072
28	0.0063/10	0.018/ 8	99.4	99.5	0.0092
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK
IP					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
21	0.0090/10	0.023/ 8	98.4	99.4	0.0088
22	0.0065/10	0.019/ 8	98.6	99.4	0.0095
23	0.0071/10	0.017/ 8	98.8	99.5	0.0082
24	0.0054/10	0.018/ 8	98.8	99.4	0.0097
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK
PM					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
40	0.0105/10	0.015/ 8	99.6	99.6	0.007
41	0.0091/10	0.013/ 8	99.6	99.6	0.0093
42	0.0101/10	0.014/ 8	99.6	99.5	0.0077
43	0.0075/10	0.016/ 8	99.6	99.6	0.0093
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK
SAT					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
35	0.0079/10	0.023/ 8	99.4	99.6	0.0083
36	0.0077/10	0.017/ 8	99.4	99.5	0.009
37	0.0070/10	0.016/ 8	99.5	99.6	0.0077
38	0.0079/10	0.015/ 8	99.6	99.7	0.0076
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK

Table 6-21: Convergence Statistics Across All Peaks for Forecast Year Without LP

Forecast Year 2044 With Local Plan					
AM					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
34	0.0070/10	1.199/12	99.2	99.1	0.0071
35	0.0063/10	0.060/ 5	99	99.3	0.0065
36	0.0051/10	0.017/ 8	99.2	99.1	0.0067
37	0.0045/10	1.143/11	99	99.1	0.0096
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK
IP					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
22	0.0074/10	0.021/ 8	98.2	99.3	0.0078
23	0.0055/10	0.020/ 8	98.7	99.4	0.0093
24	0.0059/10	0.022/ 8	98.8	99.4	0.0079
25	0.0050/10	0.019/ 8	98.9	99.5	0.0078
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK
PM					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
48	0.0089/10	0.018/ 8	99.5	99.5	0.0084
49	0.0086/10	0.019/ 8	99.6	99.5	0.0064
50	0.0087/10	0.017/ 8	99.6	99.5	0.0065
51	0.0066/10	0.016/ 8	99.6	99.6	0.0088
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK
SAT					
Last 4 iterations	Ass	Sim	%Flow	%Delay	%GAP
33	0.0091/10	0.024/ 8	99.3	99.6	0.0096
34	0.0077/10	0.025/ 8	99.4	99.6	0.0095
35	0.0091/10	0.023/ 8	99.4	99.4	0.0093
36	0.0084/10	0.022/ 8	99.5	99.5	0.0088
Target	Under 0.1%	Under 0.1%	Above 98	Above 98	Under 0.1%
Check	OK	OK	OK	OK	OK

Table 6-22: Convergence Statistics Across All Peaks for Forecast Year With LP

7 Conclusion

This report documents the development of future year traffic forecasts for Thurrock, estimating travel demand for 2044 under both the Without Local Plan and With Local Plan scenarios.

Car growth was estimated by spatially allocating development trips from the uncertainty log, using trip rates derived from agreed TRICS rates for large developments and TEMPRO rates for smaller dwellings. Employment trips were also assigned using TEMPRO rates, while Light Goods Vehicle (LGV) and Heavy Goods Vehicle (HGV) growth was based on the NRTP traffic forecast growth factors. For forecast public transport, TEMPRO trip rates have been applied to growth passenger demand. All traffic demand forecasts assume unconstrained growth within Thurrock, in line with understanding forecast Local Plan demand growth.

In summary, the modelling has been carried out in accordance with best practice and is based on a validated 2023 base year model. The forecasts produce consistent and credible outcomes, demonstrating the likely impacts of both the 2044 without and with Local Plan developments on the local transport network and surrounding areas. The outputs are robust and suitable as a baseline for identifying appropriate mitigation measures and assessing individual development proposals in a transparent and consistent manner. They also provide a defensible foundation for strategic planning and decision-making, supporting the delivery of sustainable growth across Thurrock.

8 References

Homes & Communities Agency (2010) *Employment Densities Guide* (2nd ed.). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/378203/employ-den.pdf

National Highways (2022) *Lower Thames Crossing: 7.7 Combined Modelling and Appraisal Report*. Application Document Reference TR010032/APP/7.7. Planning Inspectorate Scheme Ref: TR010032, October 2022.

Department for Transport (2024) *TAG Unit M3.1: Highway Assignment Modelling*. Transport Analysis Guidance (TAG), Department for Transport.

Department for Transport (2023) *TAG Unit M4: Forecasting and Uncertainty*. Transport Analysis Guidance (TAG), Department for Transport.

9 Appendices

9.1 Appendix A – Uncertainty Log for Housing developments and Associated Dwellings

Placemaker ID	Dwellings	Trip Rate Source (TEMPPro/TRICS)
60935	450	TEMPPro
60961	90	TEMPPro
61112	9	TEMPPro
61113	16	TEMPPro
61066	16	TEMPPro
60941	80	TEMPPro
61012	37	TEMPPro
61022	130	TEMPPro
61104	7	TEMPPro
61190	9	TEMPPro
61033	21	TEMPPro
61136	100	TEMPPro
61139	34	TEMPPro
60948/ 61034/ 61035	100	TEMPPro
60474	7	TEMPPro
60910	148	TEMPPro
61187	230	TEMPPro
60444	31	TEMPPro
60459	170	TEMPPro
60835	200	TEMPPro
60836	400	TEMPPro
60937	49	TEMPPro
61011	43	TEMPPro
61084	34	TEMPPro
61172	53	TEMPPro
61178	6	TEMPPro
61202	18	TEMPPro
61088/ 61085 / 61100 - 3 separate sites	286	TEMPPro
60827	50	TEMPPro
60821	50	TEMPPro
60918	69	TEMPPro
61008	350	TEMPPro
61030	70	TEMPPro
61095	9	TEMPPro
61099	7	TEMPPro
61114	170	TEMPPro
61115	24	TEMPPro
61116	33	TEMPPro
61117	17	TEMPPro
61147	38	TEMPPro
60912	190	TEMPPro
60944 part of	430	TEMPPro
61123	10	TEMPPro
61124	6	TEMPPro

61146	6	TEMPro
61059	112	TEMPro
60844 Part of	600	TRICS
60956/ 60831/ 61075 Single polygon	2,000	TRICS
60820/ 60947/ 60856 Single Polygon	2,000	TRICS
61171	600	TRICS
60853/ 60911/ 61038 Single Polygon	2,000	TRICS
60972/ 60883 Keep Separate	2,000	TRICS
60888 part of	300	TRICS
60913 60969 / T59b Single Polygon	10,000	TRICS
60942/ 60956 Single Polygon	900	TRICS
60893	1,000	TRICS
60940	4,000	TRICS
60847	830	TRICS
61209	3,000	TRICS

9.2 Appendix B – Uncertainty Log for Employment Developments and associated Job Figures

Site	Jobs
60969/T59b	1987
60981	579
61209	1067
T81a	149
T35a/60850	139
T14a	32
Include T52	534
T33a	22
61010	616
60900	43
61073	378
60854, 60862	2301
T07a	108
T07b	20
60984	3000
60976 & 60988	1192
T05	3193
60861	99
60940	242
60940	237
23/01500/FUL	8
19/00120/FUL	5
20/00458/FUL	3
21/01158/FUL	129
19/01430/FUL	22
19/01701/OUT	16
22/00653/FUL	196
22/01404/FUL	177
23/00162/FUL	23
20/01773/FUL	270

9.3 Appendix C – TEMPro Background Growth Factors for Car and PT Within Thurrock (2023-2044)

AM Peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	Origin	Destination	Origin	Destination	Origin	Destination
Authority	Thurrock	1.011	1.047	0.838	0.920	0.916	0.976
E02003296	Thurrock 001	0.997	1.038	0.875	0.898	0.938	0.966
E02003297	Thurrock 002	1.023	1.050	0.864	0.919	0.945	0.973
E02003298	Thurrock 003	1.012	1.033	0.856	0.889	0.938	0.949
E02003299	Thurrock 004	0.989	1.045	0.886	0.923	0.952	0.992
E02003300	Thurrock 005	1.005	1.041	0.840	0.900	0.923	0.966
E02003301	Thurrock 006	1.013	1.041	0.834	0.900	0.879	0.962
E02003302	Thurrock 007	1.012	1.038	0.820	0.890	0.861	0.941
E02003303	Thurrock 008	1.004	1.040	0.834	0.885	0.919	0.971
E02003304	Thurrock 009	1.017	1.045	0.848	0.912	0.931	0.973
E02003305	Thurrock 010	1.011	1.038	0.868	0.896	0.942	0.954
E02003307	Thurrock 012	1.023	1.039	0.849	0.890	0.932	0.953
E02003308	Thurrock 013	0.988	1.034	0.829	0.866	0.905	0.965
E02003309	Thurrock 014	1.002	1.038	0.850	0.897	0.922	0.956
E02003310	Thurrock 015	1.036	1.059	0.870	0.955	0.922	0.986
E02003311	Thurrock 016	1.018	1.046	0.812	0.909	0.905	0.972
E02003312	Thurrock 017	1.041	1.048	0.795	0.913	0.901	0.978
E02003313	Thurrock 018	1.039	1.048	0.794	0.886	0.912	0.978
E02006859	Thurrock 019	0.972	1.034	0.805	0.898	0.891	0.966
E02006926	Thurrock 020	0.967	1.028	0.823	0.889	0.909	0.964

Inter-peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	Origin	Destination	Origin	Destination	Origin	Destination
Authority	Thurrock	0.929	0.957	0.958	0.929	0.957	0.958
E02003296	Thurrock 001	0.896	0.953	0.943	0.896	0.953	0.943
E02003297	Thurrock 002	0.930	0.963	0.963	0.930	0.963	0.963
E02003298	Thurrock 003	0.890	0.937	0.936	0.890	0.937	0.936
E02003299	Thurrock 004	0.939	0.993	0.987	0.939	0.993	0.987
E02003300	Thurrock 005	0.904	0.948	0.948	0.904	0.948	0.948
E02003301	Thurrock 006	0.881	0.918	0.914	0.881	0.918	0.914
E02003302	Thurrock 007	0.871	0.893	0.889	0.871	0.893	0.889
E02003303	Thurrock 008	0.855	0.930	0.930	0.855	0.930	0.930
E02003304	Thurrock 009	0.916	0.957	0.954	0.916	0.957	0.954
E02003305	Thurrock 010	0.917	0.952	0.952	0.917	0.952	0.952
E02003307	Thurrock 012	0.898	0.937	0.938	0.898	0.937	0.938
E02003308	Thurrock 013	0.857	0.933	0.928	0.857	0.933	0.928
E02003309	Thurrock 014	0.915	0.943	0.942	0.915	0.943	0.942
E02003310	Thurrock 015	0.976	0.990	0.988	0.976	0.990	0.988

E02003311	Thurrock 016	0.910	0.948	0.951	0.910	0.948	0.951
E02003312	Thurrock 017	0.894	0.943	0.947	0.894	0.943	0.947
E02003313	Thurrock 018	0.861	0.938	0.941	0.861	0.938	0.941
E02006859	Thurrock 019	0.900	0.939	0.948	0.900	0.939	0.948
E02006926	Thurrock 020	0.896	0.939	0.944	0.896	0.939	0.944

PM Peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	Origin	Destination	Origin	Destination	Origin	Destination
Authority	Thurrock	1.036	1.013	0.936	0.856	0.974	0.925
E02003296	Thurrock 001	1.026	0.997	0.908	0.876	0.962	0.941
E02003297	Thurrock 002	1.040	1.025	0.934	0.880	0.973	0.946
E02003298	Thurrock 003	1.022	1.011	0.888	0.865	0.941	0.935
E02003299	Thurrock 004	1.035	0.997	0.956	0.912	0.997	0.973
E02003300	Thurrock 005	1.027	1.004	0.914	0.855	0.964	0.926
E02003301	Thurrock 006	1.030	1.011	0.912	0.839	0.955	0.893
E02003302	Thurrock 007	1.027	1.010	0.902	0.825	0.933	0.872
E02003303	Thurrock 008	1.028	1.003	0.895	0.827	0.954	0.920
E02003304	Thurrock 009	1.037	1.018	0.926	0.861	0.970	0.931
E02003305	Thurrock 010	1.030	1.016	0.913	0.889	0.961	0.946
E02003307	Thurrock 012	1.031	1.023	0.899	0.858	0.949	0.930
E02003308	Thurrock 013	1.014	0.987	0.892	0.829	0.958	0.918
E02003309	Thurrock 014	1.025	1.002	0.912	0.863	0.956	0.923
E02003310	Thurrock 015	1.052	1.038	0.963	0.900	0.987	0.941
E02003311	Thurrock 016	1.034	1.015	0.922	0.830	0.968	0.912
E02003312	Thurrock 017	1.039	1.034	0.915	0.816	0.971	0.908
E02003313	Thurrock 018	1.041	1.035	0.889	0.805	0.969	0.910
E02006859	Thurrock 019	1.009	0.972	0.917	0.830	0.966	0.908
E02006926	Thurrock 020	1.003	0.968	0.917	0.849	0.964	0.919

SAT Peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	Origin	Destination	Origin	Destination	Origin	Destination
Authority	Thurrock	1.030	1.033	0.917	0.916	0.940	0.938
E02003296	Thurrock 001	1.011	1.011	0.897	0.893	0.937	0.933
E02003297	Thurrock 002	1.039	1.041	0.919	0.918	0.952	0.950
E02003298	Thurrock 003	1.018	1.017	0.880	0.877	0.925	0.924
E02003299	Thurrock 004	1.024	1.026	0.946	0.938	0.980	0.977
E02003300	Thurrock 005	1.018	1.019	0.898	0.895	0.938	0.936
E02003301	Thurrock 006	1.020	1.021	0.874	0.871	0.899	0.899
E02003302	Thurrock 007	1.018	1.019	0.865	0.862	0.877	0.876
E02003303	Thurrock 008	1.017	1.017	0.850	0.848	0.917	0.916
E02003304	Thurrock 009	1.032	1.031	0.895	0.888	0.933	0.928
E02003305	Thurrock 010	1.027	1.029	0.914	0.914	0.952	0.952

E02003307	Thurrock 012	1.031	1.032	0.887	0.886	0.923	0.922
E02003308	Thurrock 013	1.001	1.002	0.863	0.860	0.917	0.917
E02003309	Thurrock 014	1.017	1.018	0.905	0.902	0.932	0.929
E02003310	Thurrock 015	1.058	1.060	0.954	0.954	0.966	0.964
E02003311	Thurrock 016	1.027	1.028	0.895	0.894	0.925	0.924
E02003312	Thurrock 017	1.035	1.036	0.877	0.877	0.918	0.917
E02003313	Thurrock 018	1.040	1.042	0.852	0.850	0.906	0.904
E02006859	Thurrock 019	0.990	0.993	0.898	0.897	0.930	0.932
E02006926	Thurrock 020	0.986	0.988	0.900	0.897	0.935	0.935

9.4 Appendix D - TEMPro Background Growth Factors for Car and PT Outside of Thurrock (2023 – 2044)

AM Peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	O	D	O	D	O	D
Region	EAST	1.092	1.100	0.907	0.929	0.982	1.006
Authority	Bedford	1.104	1.106	0.929	0.972	1.004	1.028
Authority	Central Bedfordshire	1.114	1.107	0.957	0.976	1.031	1.030
Authority	Luton	1.046	1.095	0.841	0.952	0.932	1.017
Authority	Cambridge	1.072	1.082	0.829	0.876	0.935	0.983
Authority	East Cambridgeshire	1.071	1.082	0.913	0.895	0.973	0.984
Authority	Fenland	1.147	1.093	0.931	0.901	1.040	0.989
Authority	Huntingdonshire	1.064	1.085	0.879	0.880	0.976	0.985
Authority	Peterborough	1.163	1.095	0.919	0.886	1.063	1.000
Authority	South Cambridgeshire	1.055	1.082	0.886	0.880	0.977	0.987
Authority	Basildon	1.115	1.106	0.930	0.977	1.018	1.031
E02004424	Basildon 001	1.084	1.094	0.968	0.949	1.029	1.008
E02004425	Basildon 002	1.104	1.109	0.938	0.985	1.014	1.036
E02004426	Basildon 003	1.111	1.120	0.965	0.999	1.022	1.038
E02004427	Basildon 004	1.116	1.110	0.961	0.974	1.032	1.028
E02004428	Basildon 005	1.127	1.112	0.942	0.983	1.031	1.035
E02004429	Basildon 006	1.111	1.105	0.960	0.961	1.033	1.017
E02004430	Basildon 007	1.087	1.092	0.947	0.964	1.020	1.021
E02004431	Basildon 008	1.090	1.105	0.925	0.977	1.005	1.031
E02004432	Basildon 009	1.077	1.101	0.977	0.982	1.026	1.027
E02004433	Basildon 010	1.100	1.099	0.924	0.963	1.015	1.028
E02004434	Basildon 011	1.103	1.099	0.917	0.981	1.010	1.028
E02004435	Basildon 012	1.129	1.100	0.922	0.981	1.017	1.028
E02004436	Basildon 013	1.150	1.110	0.901	0.939	1.013	1.006
E02004437	Basildon 014	1.115	1.089	0.922	0.975	1.019	1.024
E02004438	Basildon 015	1.137	1.110	0.950	0.990	1.023	1.035
E02004439	Basildon 016	1.158	1.118	0.888	0.943	1.011	1.018
E02004440	Basildon 017	1.145	1.112	0.907	0.946	1.011	1.013
E02004441	Basildon 018	1.136	1.114	0.915	0.970	1.016	1.033
E02004442	Basildon 019	1.150	1.119	0.900	0.951	1.012	1.022
E02004443	Basildon 020	1.130	1.120	0.948	0.993	1.027	1.047
E02004444	Basildon 021	1.088	1.106	0.938	0.983	1.014	1.034
E02004445	Basildon 022	1.130	1.119	0.909	0.974	1.008	1.030
Authority	Braintree	1.065	1.095	0.896	0.914	0.956	0.991
Authority	Brentwood	1.057	1.099	0.912	0.968	0.975	1.029
E02004464	Brentwood 001	1.031	1.086	0.939	0.962	0.991	1.020
E02004465	Brentwood 002	1.051	1.099	0.923	0.967	0.973	1.027
E02004466	Brentwood 003	1.069	1.097	0.891	0.955	0.975	1.026
E02004467	Brentwood 004	1.070	1.099	0.891	0.949	0.974	1.012
E02004468	Brentwood 005	1.063	1.106	0.936	0.977	0.991	1.030
E02004469	Brentwood 006	1.053	1.099	0.924	0.977	0.987	1.032



E02004470	Brentwood 007	1.074	1.105	0.890	0.975	0.960	1.033
E02004471	Brentwood 008	1.065	1.096	0.903	0.970	0.960	1.027
E02004472	Brentwood 009	1.029	1.090	0.926	0.967	0.978	1.029
Authority	Castle Point	1.053	1.098	0.903	0.963	0.969	1.019
E02004473	Castle Point 001	1.041	1.093	0.907	0.965	0.973	1.016
E02004474	Castle Point 002	1.058	1.103	0.938	0.976	0.983	1.021
E02004475	Castle Point 003	1.045	1.095	0.910	0.950	0.971	0.997
E02004476	Castle Point 004	1.036	1.093	0.927	0.955	0.974	1.008
E02004477	Castle Point 005	1.048	1.089	0.932	0.984	0.980	1.021
E02004478	Castle Point 006	1.059	1.101	0.912	0.963	0.969	1.015
E02004479	Castle Point 007	1.046	1.099	0.909	0.980	0.967	1.031
E02004480	Castle Point 008	1.042	1.084	0.864	0.926	0.957	1.005
E02004481	Castle Point 009	1.080	1.106	0.894	0.967	0.981	1.036
E02004482	Castle Point 010	1.079	1.099	0.857	0.948	0.960	1.017
E02004483	Castle Point 011	1.061	1.106	0.891	0.978	0.970	1.028
E02004484	Castle Point 012	1.052	1.095	0.893	0.949	0.937	0.986
Authority	Chelmsford	1.108	1.102	0.928	0.922	1.004	0.996
Authority	Colchester	1.161	1.109	0.945	0.919	1.051	0.999
Authority	Epping Forest	1.073	1.104	0.920	0.955	0.980	1.016
Authority	Harlow	1.093	1.104	0.901	0.970	0.989	1.024
Authority	Maldon	1.075	1.096	0.937	0.926	0.979	0.991
Authority	Rochford	1.083	1.101	0.936	0.968	1.003	1.022
E02004563	Rochford 001	1.085	1.101	0.959	0.973	1.018	1.024
E02004564	Rochford 002	1.068	1.092	0.944	0.949	1.007	1.007
E02004565	Rochford 003	1.082	1.098	0.946	0.959	1.008	1.016
E02004566	Rochford 004	1.099	1.109	0.915	0.973	0.966	1.031
E02004567	Rochford 005	1.085	1.104	0.947	0.966	1.013	1.022
E02004568	Rochford 006	1.080	1.099	0.916	0.960	0.994	1.017
E02004569	Rochford 007	1.092	1.097	0.928	0.974	0.999	1.022
E02004570	Rochford 008	1.104	1.111	0.939	0.979	1.010	1.031
E02004571	Rochford 009	1.082	1.100	0.951	0.975	1.013	1.026
E02004572	Rochford 010	1.062	1.097	0.920	0.959	0.979	1.010
Authority	Southend-on-Sea	1.112	1.110	0.915	0.969	1.001	1.030
E02003279	Southend-on-Sea 001	1.096	1.101	0.961	0.969	1.018	1.022
E02003280	Southend-on-Sea 002	1.105	1.109	0.941	0.979	1.012	1.029
E02003281	Southend-on-Sea 003	1.128	1.119	0.973	0.985	1.043	1.037
E02003282	Southend-on-Sea 004	1.114	1.122	0.945	0.991	1.014	1.048
E02003283	Southend-on-Sea 005	1.102	1.100	0.921	0.942	1.005	1.002
E02003284	Southend-on-Sea 006	1.106	1.101	0.897	0.965	0.993	1.018
E02003285	Southend-on-Sea 007	1.113	1.113	0.865	0.965	0.979	1.023
E02003286	Southend-on-Sea 008	1.086	1.103	0.940	0.959	1.002	1.020
E02003287	Southend-on-Sea 009	1.120	1.106	0.928	0.946	1.015	1.009
E02003288	Southend-on-Sea 010	1.149	1.110	0.892	0.975	0.996	1.032
E02003289	Southend-on-Sea 011	1.092	1.110	0.906	0.975	0.979	1.032
E02003290	Southend-on-Sea 012	1.104	1.112	0.918	0.975	0.991	1.034
E02003291	Southend-on-Sea 013	1.112	1.104	0.905	0.967	1.001	1.024
E02003292	Southend-on-Sea 014	1.143	1.117	0.879	0.959	0.991	1.028



E02003293	Southend-on-Sea 015	1.142	1.115	0.913	0.970	0.994	1.032
E02003294	Southend-on-Sea 016	1.105	1.113	0.962	0.982	1.019	1.031
E02003295	Southend-on-Sea 017	1.099	1.101	0.912	0.943	1.004	1.009
Authority	Tendring	1.150	1.111	0.942	0.927	1.024	0.996
Authority	Uttlesford	1.131	1.102	0.994	0.958	1.052	1.013
Authority	Broxbourne	1.053	1.105	0.884	0.936	0.946	0.992
Authority	Dacorum	1.060	1.102	0.909	0.946	0.962	0.994
Authority	East Hertfordshire	1.069	1.101	0.933	0.971	0.988	1.026
Authority	Hertsmere	1.034	1.096	0.874	0.952	0.937	1.016
Authority	North Hertfordshire	1.064	1.098	0.896	0.959	0.974	1.013
Authority	St Albans	1.053	1.099	0.895	0.964	0.965	1.028
Authority	Stevenage	1.079	1.103	0.896	0.972	0.976	1.031
Authority	Three Rivers	1.031	1.100	0.879	0.934	0.941	1.004
Authority	Watford	1.096	1.112	0.902	0.956	0.977	1.020
Authority	Welwyn Hatfield	1.124	1.104	0.932	0.967	1.032	1.027
Authority	Breckland	1.107	1.102	0.939	0.926	0.988	0.987
Authority	Broadland	1.129	1.107	0.969	0.925	1.043	1.002
Authority	Great Yarmouth	1.093	1.107	0.875	0.908	0.972	0.992
Authority	King's Lynn and West Norfolk	1.025	1.080	0.838	0.874	0.930	0.976
Authority	North Norfolk	1.064	1.101	0.880	0.911	0.946	0.991
Authority	Norwich	1.131	1.105	0.890	0.907	1.005	0.997
Authority	South Norfolk	1.150	1.111	0.987	0.929	1.068	1.002
Authority	Babergh	1.069	1.098	0.908	0.916	0.960	0.985
Authority	Forest Heath	1.105	1.099	0.971	0.923	1.001	0.998
Authority	Ipswich	1.067	1.100	0.847	0.906	0.939	0.996
Authority	Mid Suffolk	1.079	1.096	0.913	0.915	0.986	0.991
Authority	St Edmundsbury	1.044	1.094	0.863	0.903	0.937	0.987
Authority	Suffolk Coastal	1.074	1.099	0.903	0.917	0.969	0.992
Authority	Waveney	1.099	1.105	0.896	0.912	0.982	0.995
Region	East Midlands	1.115	1.115	0.953	0.953	1.013	1.013
Region	London	1.125	1.106	0.970	0.959	1.032	1.027
Authority	Camden	1.196	1.115	1.039	0.973	1.085	1.028
Authority	City of London	1.096	1.100	0.978	0.983	1.021	1.035
Authority	Hackney	1.212	1.119	1.032	0.971	1.083	1.033
Authority	Hammersmith and Fulham	1.119	1.110	0.979	0.974	1.013	1.030
Authority	Haringey	1.097	1.107	0.953	0.958	0.996	1.017
Authority	Islington	1.193	1.114	1.010	0.969	1.056	1.030
Authority	Kensington and Chelsea	1.023	1.104	0.882	0.966	0.917	1.029
Authority	Lambeth	1.129	1.111	0.970	0.969	1.009	1.028
Authority	Lewisham	1.128	1.109	1.007	0.963	1.056	1.025
Authority	Newham	1.179	1.115	1.042	0.972	1.097	1.028
Authority	Southwark	1.156	1.111	1.001	0.965	1.042	1.029
Authority	Tower Hamlets	1.289	1.119	1.141	0.996	1.185	1.036
Authority	Wandsworth	1.100	1.108	0.989	0.969	1.017	1.026
Authority	Westminster	1.161	1.112	1.016	0.977	1.059	1.033
Authority	Barking and Dagenham	1.198	1.116	0.964	0.962	1.081	1.027
Authority	Barnet	1.134	1.115	0.945	0.962	1.033	1.021

Authority	Bexley	1.103	1.109	0.946	0.960	1.022	1.013
E02000065	Bexley 001	1.121	1.097	0.876	0.936	0.990	0.995
E02000066	Bexley 002	1.144	1.124	0.898	0.942	1.005	0.987
E02000067	Bexley 003	1.109	1.103	0.912	0.955	1.004	1.011
E02000068	Bexley 004	1.119	1.105	0.907	0.960	1.001	1.008
E02000069	Bexley 005	1.106	1.107	0.942	0.942	1.021	0.999
E02000070	Bexley 006	1.100	1.105	0.970	0.962	1.034	1.019
E02000071	Bexley 007	1.092	1.100	0.942	0.943	1.019	0.997
E02000072	Bexley 008	1.132	1.098	0.891	0.932	1.007	0.999
E02000073	Bexley 009	1.091	1.112	0.970	0.963	1.032	1.017
E02000074	Bexley 010	1.121	1.107	0.942	0.969	1.027	1.022
E02000075	Bexley 011	1.099	1.115	0.986	0.965	1.039	1.021
E02000077	Bexley 013	1.093	1.107	0.947	0.943	1.021	1.001
E02000078	Bexley 014	1.086	1.105	0.965	0.953	1.027	1.009
E02000079	Bexley 015	1.117	1.120	0.972	0.994	1.019	1.032
E02000080	Bexley 016	1.106	1.116	0.954	0.964	1.022	1.013
E02000081	Bexley 017	1.102	1.099	0.958	0.947	1.027	1.006
E02000082	Bexley 018	1.083	1.104	0.965	0.951	1.024	1.013
E02000083	Bexley 019	1.103	1.112	0.944	0.970	1.015	1.019
E02000084	Bexley 020	1.087	1.107	0.974	0.956	1.031	1.013
E02000085	Bexley 021	1.086	1.107	0.957	0.951	1.022	1.004
E02000086	Bexley 022	1.080	1.100	0.967	0.947	1.028	1.005
E02000087	Bexley 023	1.094	1.104	0.990	0.957	1.041	1.021
E02000088	Bexley 024	1.086	1.097	0.976	0.948	1.034	1.012
E02000089	Bexley 025	1.089	1.111	0.980	0.982	1.036	1.027
E02000090	Bexley 026	1.112	1.113	0.961	0.964	1.017	1.020
E02000091	Bexley 027	1.110	1.116	0.968	0.969	1.027	1.021
E02000092	Bexley 028	1.107	1.102	0.942	0.966	1.023	1.021
E02006785	Bexley 029	1.127	1.113	0.973	0.958	1.044	1.024
Authority	Brent	1.144	1.113	0.923	0.958	1.004	1.020
Authority	Bromley	1.095	1.110	0.951	0.965	1.010	1.021
Authority	Croydon	1.096	1.108	0.911	0.954	0.978	1.016
Authority	Ealing	1.102	1.077	0.855	0.875	0.971	0.987
Authority	Enfield	1.096	1.109	0.902	0.954	0.982	1.008
Authority	Greenwich	1.208	1.124	0.978	0.965	1.081	1.028
Authority	Harrow	1.044	1.104	0.885	0.953	0.945	1.008
Authority	Havering	1.138	1.114	0.989	0.972	1.066	1.029
E02000464	Havering 001	1.151	1.108	0.960	0.942	1.062	1.009
E02000465	Havering 002	1.152	1.119	0.951	0.949	1.053	1.012
E02000466	Havering 003	1.141	1.119	0.976	0.959	1.070	1.029
E02000467	Havering 004	1.166	1.117	0.950	0.966	1.050	1.021
E02000468	Havering 005	1.135	1.120	1.000	0.969	1.073	1.036
E02000469	Havering 006	1.151	1.120	0.963	0.955	1.061	1.016
E02000470	Havering 007	1.135	1.111	1.009	0.983	1.071	1.033
E02000471	Havering 008	1.129	1.104	1.031	0.954	1.093	1.022
E02000472	Havering 009	1.130	1.107	0.994	0.958	1.072	1.025
E02000473	Havering 010	1.120	1.104	0.989	0.942	1.065	1.004



E02000474	Havering 011	1.143	1.111	0.980	0.972	1.063	1.030
E02000475	Havering 012	1.131	1.113	1.002	0.971	1.066	1.032
E02000476	Havering 013	1.151	1.123	0.981	0.995	1.041	1.038
E02000477	Havering 014	1.125	1.113	1.010	0.971	1.072	1.033
E02000478	Havering 015	1.120	1.110	1.036	0.962	1.094	1.031
E02000479	Havering 016	1.135	1.113	0.966	0.975	1.042	1.029
E02000480	Havering 017	1.139	1.120	0.975	0.986	1.051	1.036
E02000481	Havering 018	1.144	1.117	1.010	0.987	1.066	1.032
E02000482	Havering 019	1.132	1.110	1.025	0.961	1.085	1.021
E02000483	Havering 020	1.150	1.124	1.003	0.995	1.070	1.042
E02000484	Havering 021	1.121	1.108	1.005	0.970	1.067	1.033
E02000485	Havering 022	1.136	1.117	0.995	0.962	1.065	1.024
E02000486	Havering 023	1.140	1.115	0.998	0.955	1.071	1.022
E02000487	Havering 024	1.130	1.108	1.026	0.955	1.090	1.024
E02000488	Havering 025	1.136	1.122	1.012	0.970	1.077	1.034
E02000489	Havering 026	1.153	1.121	0.986	0.977	1.066	1.035
E02000490	Havering 027	1.147	1.113	0.993	0.949	1.075	1.015
E02000491	Havering 028	1.142	1.101	0.971	0.961	1.064	1.025
E02000492	Havering 029	1.128	1.089	1.015	0.972	1.074	1.021
E02000493	Havering 030	1.147	1.126	0.967	0.974	1.056	1.029
Authority	Hillingdon	1.110	1.085	0.926	0.906	1.036	0.995
Authority	Hounslow	1.121	1.083	0.902	0.899	1.014	1.000
Authority	Kingston upon Thames	1.114	1.111	0.942	0.959	1.018	1.021
Authority	Merton	1.086	1.105	0.895	0.952	0.962	1.020
Authority	Redbridge	1.115	1.111	0.917	0.952	1.013	1.015
Authority	Richmond upon Thames	1.085	1.078	0.893	0.884	0.984	0.994
Authority	Sutton	1.085	1.108	0.938	0.962	0.999	1.019
Authority	Waltham Forest	1.156	1.115	0.927	0.953	1.021	1.017
Region	NE	1.106	1.106	0.872	0.872	0.966	0.966
Region	NW	1.105	1.105	0.922	0.922	0.991	0.991
Region	SCOTLAND	1.096	1.096	0.825	0.825	0.953	0.953
Region	SE	1.085	1.089	0.899	0.908	0.988	0.996
Authority	Slough	1.088	1.069	0.851	0.880	0.986	0.988
Authority	Windsor and Maidenhead	1.055	1.070	0.880	0.886	0.981	0.990
Authority	Aylesbury Vale	1.165	1.087	0.981	0.914	1.092	0.999
Authority	Chiltern	1.029	1.059	0.867	0.880	0.973	0.981
Authority	South Bucks	1.017	1.061	0.859	0.883	0.959	0.988
Authority	Wycombe	1.011	1.058	0.835	0.875	0.939	0.979
Authority	Dartford	1.207	1.122	1.026	0.979	1.126	1.046
E02005028	Dartford 001	1.254	1.103	0.991	0.969	1.117	1.051
E02005029	Dartford 002	1.210	1.122	1.030	1.006	1.111	1.061
E02005030	Dartford 003	1.194	1.118	0.999	0.970	1.103	1.036
E02005031	Dartford 004	1.233	1.132	1.007	0.957	1.123	1.048
E02005032	Dartford 005	1.219	1.136	1.014	0.980	1.101	1.059
E02005033	Dartford 006	1.168	1.125	1.028	0.997	1.129	1.041
E02005034	Dartford 007	1.212	1.127	1.065	1.005	1.151	1.084
E02005035	Dartford 008	1.194	1.129	1.025	0.980	1.129	1.054



E02005036	Dartford 009	1.220	1.109	1.007	0.949	1.129	1.037
E02005037	Dartford 010	1.217	1.126	1.067	0.959	1.177	1.057
E02005038	Dartford 011	1.208	1.115	1.067	0.957	1.164	1.047
E02005039	Dartford 012	1.216	1.127	1.042	1.007	1.124	1.037
E02005040	Dartford 013	1.230	1.123	1.111	0.989	1.183	1.041
Authority	Gravesham	1.071	1.105	0.896	0.942	0.954	0.982
E02005055	Gravesham 001	1.088	1.101	0.864	0.934	0.942	0.957
E02005056	Gravesham 002	1.118	1.117	0.885	0.961	0.938	1.000
E02005057	Gravesham 003	1.069	1.094	0.879	0.925	0.948	0.976
E02005058	Gravesham 004	1.079	1.108	0.873	0.925	0.947	0.954
E02005059	Gravesham 005	1.059	1.099	0.900	0.924	0.955	0.971
E02005060	Gravesham 006	1.085	1.109	0.917	0.945	0.967	0.987
E02005061	Gravesham 007	1.084	1.112	0.892	0.929	0.960	0.966
E02005062	Gravesham 008	1.060	1.100	0.918	0.934	0.972	0.969
E02005063	Gravesham 009	1.066	1.117	0.910	0.944	0.963	0.965
E02005064	Gravesham 010	1.052	1.093	0.935	0.955	0.982	1.018
E02005065	Gravesham 011	1.079	1.105	0.890	0.920	0.958	0.963
E02005066	Gravesham 012	1.052	1.094	0.948	0.962	0.984	1.014
E02005067	Gravesham 013	1.034	1.084	0.941	0.955	0.984	1.011
Authority	Maidstone	1.122	1.107	0.968	0.984	1.035	1.034
Authority	Medway	1.088	1.102	0.903	0.964	0.988	1.024
E02003314	Medway 001	1.072	1.091	0.930	0.965	0.982	1.026
E02003315	Medway 002	1.042	1.085	0.931	0.956	0.985	1.013
E02003316	Medway 003	1.057	1.097	0.925	0.961	0.979	1.008
E02003317	Medway 004	1.078	1.092	0.932	0.974	1.003	1.026
E02003318	Medway 005	1.068	1.088	0.940	0.948	1.002	1.006
E02003319	Medway 006	1.102	1.110	0.881	0.967	0.978	1.028
E02003320	Medway 007	1.083	1.095	0.890	0.945	0.975	1.013
E02003321	Medway 008	1.102	1.096	0.893	0.935	0.989	0.999
E02003322	Medway 009	1.133	1.104	0.863	0.935	0.986	1.012
E02003323	Medway 010	1.094	1.100	0.880	0.945	0.980	1.016
E02003324	Medway 011	1.085	1.105	0.900	0.981	0.988	1.028
E02003325	Medway 012	1.137	1.113	0.871	0.958	0.973	1.025
E02003326	Medway 013	1.105	1.108	0.881	0.958	0.981	1.025
E02003327	Medway 014	1.102	1.108	0.887	0.960	0.973	1.024
E02003328	Medway 015	1.130	1.111	0.888	0.976	0.988	1.034
E02003329	Medway 016	1.117	1.120	0.899	1.005	0.988	1.052
E02003330	Medway 017	1.100	1.102	0.878	0.942	0.980	1.006
E02003331	Medway 018	1.114	1.107	0.917	0.957	1.000	1.017
E02003332	Medway 019	1.086	1.101	0.904	0.958	0.991	1.019
E02003333	Medway 020	1.123	1.109	0.864	0.949	0.969	0.997
E02003334	Medway 021	1.107	1.104	0.869	0.936	0.978	1.011
E02003335	Medway 022	1.126	1.097	0.852	0.914	0.975	0.993
E02003336	Medway 023	1.097	1.107	0.934	0.976	1.005	1.029
E02003337	Medway 024	1.090	1.100	0.918	0.969	0.996	1.026
E02003338	Medway 025	1.098	1.109	0.897	0.975	0.988	1.030
E02003339	Medway 026	1.084	1.091	0.927	0.976	1.000	1.024

E02003340	Medway 027	1.094	1.095	0.910	0.940	0.990	1.002
E02003341	Medway 028	1.050	1.087	0.924	0.949	0.974	1.008
E02003342	Medway 029	1.084	1.095	0.922	0.943	0.995	1.005
E02003343	Medway 030	1.078	1.099	0.980	1.000	1.019	1.033
E02003344	Medway 031	1.076	1.097	0.890	0.947	0.984	1.012
E02003345	Medway 032	1.054	1.089	0.914	0.960	0.988	1.015
E02003346	Medway 033	1.094	1.113	0.942	0.969	1.006	1.032
E02003347	Medway 034	1.050	1.081	0.901	0.934	0.981	0.993
E02003348	Medway 035	1.074	1.116	0.984	1.004	1.016	1.036
E02003349	Medway 036	1.081	1.103	0.925	0.962	0.998	1.014
E02003350	Medway 037	1.088	1.115	0.923	0.992	0.998	1.022
E02003351	Medway 038	1.067	1.090	0.911	0.956	0.993	1.016
Authority	Sevenoaks	1.056	1.097	0.912	0.965	0.979	1.024
Authority	Swale	1.167	1.111	0.982	0.988	1.055	1.028
Authority	Tonbridge and Malling	1.096	1.102	0.951	0.976	1.011	1.024
Authority	Elmbridge	1.021	1.080	0.863	0.909	0.926	0.985
Authority	Epsom and Ewell	1.047	1.099	0.894	0.941	0.950	1.003
Authority	Guildford	1.057	1.067	0.877	0.882	0.982	0.988
Authority	Mole Valley	0.996	1.089	0.870	0.940	0.903	1.005
Authority	Reigate and Banstead	1.085	1.102	0.924	0.925	0.997	1.003
Authority	Runnymede	1.094	1.075	0.927	0.885	1.024	0.982
Authority	Spelthorne	1.044	1.070	0.872	0.876	0.959	0.980
Authority	Tandridge	1.053	1.096	0.918	0.946	0.958	1.005
Authority	Woking	1.022	1.069	0.840	0.864	0.931	0.983
Region	SW	1.109	1.109	0.947	0.947	1.016	1.016
Region	WALES	1.084	1.084	0.861	0.861	0.971	0.971
Region	West Midlands	1.113	1.113	0.962	0.962	1.006	1.006
Region	Yorkshire and Humber	1.102	1.102	0.907	0.907	0.977	0.977

Inter-peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	O	D	O	D	O	D
Region	EAST	1.111	1.111	0.958	0.957	1.001	0.998
Authority	Bedford	1.132	1.132	1.010	1.004	1.035	1.028
Authority	Central Bedfordshire	1.139	1.139	1.029	1.020	1.052	1.045
Authority	Luton	1.089	1.087	0.947	0.943	0.977	0.975
Authority	Cambridge	1.082	1.082	0.872	0.871	0.956	0.970
Authority	East Cambridgeshire	1.088	1.087	0.921	0.919	0.981	0.969
Authority	Fenland	1.119	1.122	0.923	0.924	1.003	0.997
Authority	Huntingdonshire	1.079	1.078	0.911	0.902	0.975	0.965
Authority	Peterborough	1.122	1.125	0.914	0.918	1.004	1.010
Authority	South Cambridgeshire	1.075	1.074	0.906	0.902	0.980	0.972
Authority	Basildon	1.125	1.127	0.999	0.998	1.032	1.032
E02004424	Basildon 001	1.094	1.095	0.994	1.000	1.020	1.023
E02004425	Basildon 002	1.124	1.122	1.008	1.001	1.037	1.035
E02004426	Basildon 003	1.136	1.134	1.030	1.030	1.046	1.045
E02004427	Basildon 004	1.128	1.130	1.012	1.012	1.035	1.037
E02004428	Basildon 005	1.140	1.139	1.002	0.993	1.039	1.036
E02004429	Basildon 006	1.121	1.123	0.999	1.001	1.031	1.032
E02004430	Basildon 007	1.099	1.100	0.998	0.991	1.025	1.022
E02004431	Basildon 008	1.112	1.111	1.000	0.994	1.025	1.025
E02004432	Basildon 009	1.101	1.101	1.003	1.000	1.038	1.033
E02004433	Basildon 010	1.109	1.110	0.981	0.972	1.021	1.018
E02004434	Basildon 011	1.114	1.117	0.999	0.996	1.030	1.026
E02004435	Basildon 012	1.126	1.131	0.998	0.996	1.034	1.031
E02004436	Basildon 013	1.138	1.144	0.944	0.940	0.999	1.006
E02004437	Basildon 014	1.110	1.116	0.985	0.980	1.031	1.026
E02004438	Basildon 015	1.135	1.138	1.020	1.022	1.044	1.043
E02004439	Basildon 016	1.146	1.150	0.945	0.939	1.004	1.012
E02004440	Basildon 017	1.139	1.144	0.942	0.937	1.000	1.008
E02004441	Basildon 018	1.138	1.139	0.976	0.975	1.023	1.026
E02004442	Basildon 019	1.147	1.148	0.955	0.950	1.009	1.012
E02004443	Basildon 020	1.142	1.142	1.025	1.026	1.058	1.054
E02004444	Basildon 021	1.109	1.107	1.006	0.999	1.030	1.028
E02004445	Basildon 022	1.137	1.137	0.993	0.995	1.026	1.029
Authority	Braintree	1.095	1.093	0.928	0.924	0.976	0.976
Authority	Brentwood	1.093	1.092	0.987	0.983	1.018	1.019
E02004464	Brentwood 001	1.064	1.061	0.989	0.975	1.014	1.008
E02004465	Brentwood 002	1.090	1.088	0.977	0.970	1.013	1.007
E02004466	Brentwood 003	1.096	1.093	0.967	0.957	0.999	0.998
E02004467	Brentwood 004	1.094	1.092	0.962	0.958	0.994	0.995
E02004468	Brentwood 005	1.103	1.102	1.014	1.010	1.026	1.030
E02004469	Brentwood 006	1.092	1.092	1.004	0.999	1.029	1.028
E02004470	Brentwood 007	1.106	1.107	0.993	0.995	1.020	1.023
E02004471	Brentwood 008	1.098	1.098	0.966	0.963	1.020	1.015

E02004472	Brentwood 009	1.073	1.070	0.987	0.974	1.021	1.018
Authority	Castle Point	1.089	1.087	0.974	0.975	1.004	0.999
E02004473	Castle Point 001	1.073	1.070	0.969	0.967	0.999	0.991
E02004474	Castle Point 002	1.101	1.101	1.006	1.011	1.023	1.014
E02004475	Castle Point 003	1.078	1.074	0.958	0.962	0.992	0.983
E02004476	Castle Point 004	1.072	1.068	0.971	0.977	1.002	0.994
E02004477	Castle Point 005	1.083	1.080	0.993	0.990	1.012	1.001
E02004478	Castle Point 006	1.101	1.099	0.983	0.989	1.010	0.998
E02004479	Castle Point 007	1.090	1.085	0.986	0.985	1.014	1.008
E02004480	Castle Point 008	1.063	1.060	0.925	0.914	0.974	0.978
E02004481	Castle Point 009	1.105	1.103	0.969	0.964	1.014	1.013
E02004482	Castle Point 010	1.098	1.099	0.939	0.935	0.988	0.991
E02004483	Castle Point 011	1.099	1.099	0.992	0.992	1.013	1.013
E02004484	Castle Point 012	1.082	1.080	0.922	0.929	0.984	0.975
Authority	Chelmsford	1.112	1.113	0.940	0.942	0.992	1.003
Authority	Colchester	1.135	1.138	0.945	0.950	1.006	1.016
Authority	Epping Forest	1.114	1.112	0.987	0.981	1.009	1.003
Authority	Harlow	1.115	1.115	0.987	0.986	1.015	1.013
Authority	Maldon	1.101	1.100	0.947	0.947	0.992	0.989
Authority	Rochford	1.113	1.112	0.994	0.993	1.027	1.021
E02004563	Rochford 001	1.107	1.107	0.984	0.988	1.028	1.026
E02004564	Rochford 002	1.096	1.093	0.986	0.987	1.022	1.014
E02004565	Rochford 003	1.111	1.110	0.999	0.998	1.025	1.024
E02004566	Rochford 004	1.127	1.126	0.956	0.959	1.016	1.011
E02004567	Rochford 005	1.110	1.108	0.999	0.995	1.031	1.026
E02004568	Rochford 006	1.107	1.107	0.987	0.986	1.024	1.017
E02004569	Rochford 007	1.118	1.118	1.001	1.000	1.032	1.022
E02004570	Rochford 008	1.133	1.131	1.009	1.011	1.040	1.032
E02004571	Rochford 009	1.114	1.111	1.004	1.003	1.036	1.028
E02004572	Rochford 010	1.097	1.095	0.969	0.968	1.009	0.998
Authority	Southend-on-Sea	1.136	1.135	0.989	0.990	1.027	1.025
E02003279	Southend-on-Sea 001	1.129	1.126	1.014	1.014	1.044	1.033
E02003280	Southend-on-Sea 002	1.132	1.131	1.007	1.008	1.038	1.028
E02003281	Southend-on-Sea 003	1.157	1.152	1.021	1.018	1.057	1.048
E02003282	Southend-on-Sea 004	1.147	1.143	1.022	1.024	1.057	1.048
E02003283	Southend-on-Sea 005	1.124	1.124	0.969	0.973	1.018	1.011
E02003284	Southend-on-Sea 006	1.127	1.127	0.978	0.976	1.017	1.009
E02003285	Southend-on-Sea 007	1.132	1.128	0.941	0.938	0.995	0.989
E02003286	Southend-on-Sea 008	1.123	1.119	1.002	1.002	1.031	1.023
E02003287	Southend-on-Sea 009	1.139	1.139	0.971	0.974	1.020	1.020
E02003288	Southend-on-Sea 010	1.145	1.147	0.978	0.979	1.019	1.022
E02003289	Southend-on-Sea 011	1.126	1.122	0.990	0.990	1.023	1.016
E02003290	Southend-on-Sea 012	1.141	1.136	0.999	0.998	1.033	1.028
E02003291	Southend-on-Sea 013	1.131	1.130	0.976	0.977	1.022	1.020
E02003292	Southend-on-Sea 014	1.148	1.147	0.949	0.948	1.006	1.008
E02003293	Southend-on-Sea 015	1.144	1.145	0.993	1.004	1.028	1.035
E02003294	Southend-on-Sea 016	1.143	1.137	1.024	1.016	1.048	1.037

E02003295	Southend-on-Sea 017	1.122	1.121	0.957	0.958	1.009	1.009
Authority	Tendring	1.140	1.141	0.957	0.954	1.002	1.000
Authority	Uttlesford	1.137	1.139	1.011	1.011	1.044	1.039
Authority	Broxbourne	1.107	1.105	0.956	0.947	0.973	0.962
Authority	Dacorum	1.108	1.107	0.978	0.971	0.993	0.979
Authority	East Hertfordshire	1.118	1.115	1.028	1.015	1.033	1.027
Authority	Hertsmere	1.092	1.090	0.976	0.971	0.995	0.989
Authority	North Hertfordshire	1.104	1.102	0.996	0.983	1.010	1.006
Authority	St Albans	1.102	1.099	1.003	0.995	1.016	1.014
Authority	Stevenage	1.111	1.111	0.994	0.994	1.019	1.017
Authority	Three Rivers	1.095	1.091	0.964	0.948	0.983	0.971
Authority	Watford	1.127	1.127	0.977	0.971	1.001	0.991
Authority	Welwyn Hatfield	1.130	1.134	1.002	1.000	1.035	1.035
Authority	Breckland	1.124	1.123	0.953	0.952	0.998	0.987
Authority	Broadland	1.129	1.130	0.981	0.980	1.030	1.024
Authority	Great Yarmouth	1.115	1.113	0.933	0.929	0.985	0.978
Authority	King's Lynn and West Norfolk	1.060	1.057	0.881	0.873	0.949	0.938
Authority	North Norfolk	1.100	1.098	0.929	0.923	0.980	0.970
Authority	Norwich	1.118	1.120	0.921	0.928	0.985	0.994
Authority	South Norfolk	1.142	1.144	0.973	0.980	1.043	1.038
Authority	Babergh	1.103	1.101	0.940	0.936	0.985	0.974
Authority	Forest Heath	1.107	1.108	0.933	0.947	1.006	0.995
Authority	Ipswich	1.097	1.095	0.909	0.909	0.966	0.970
Authority	Mid Suffolk	1.106	1.105	0.957	0.945	0.999	0.990
Authority	St Edmundsbury	1.085	1.083	0.928	0.917	0.968	0.956
Authority	Suffolk Coastal	1.111	1.109	0.965	0.952	0.997	0.986
Authority	Waveney	1.116	1.115	0.942	0.936	0.990	0.983
Region	East Midlands	1.145	1.145	0.983	0.983	1.022	1.022
Region	London	1.131	1.131	1.001	1.002	1.030	1.031
Authority	Camden	1.161	1.156	1.043	1.047	1.040	1.054
Authority	City of London	1.099	1.106	1.000	0.997	1.034	1.037
Authority	Hackney	1.171	1.173	1.033	1.038	1.060	1.067
Authority	Hammersmith and Fulham	1.133	1.130	1.021	1.016	1.033	1.033
Authority	Haringey	1.124	1.123	0.997	0.997	1.013	1.007
Authority	Islington	1.155	1.154	1.011	1.018	1.036	1.043
Authority	Kensington and Chelsea	1.093	1.092	0.980	0.975	1.010	1.004
Authority	Lambeth	1.134	1.132	1.001	1.002	1.023	1.022
Authority	Lewisham	1.133	1.135	1.023	1.027	1.051	1.051
Authority	Newham	1.156	1.160	1.052	1.054	1.074	1.076
Authority	Southwark	1.145	1.145	1.016	1.021	1.036	1.040
Authority	Tower Hamlets	1.199	1.203	1.121	1.129	1.082	1.108
Authority	Wandsworth	1.123	1.121	1.016	1.017	1.029	1.028
Authority	Westminster	1.138	1.134	1.026	1.029	1.039	1.048
Authority	Barking and Dagenham	1.165	1.172	0.989	0.989	1.039	1.044
Authority	Barnet	1.148	1.149	1.008	1.008	1.035	1.031
Authority	Bexley	1.125	1.125	0.997	0.997	1.023	1.018
E02000065	Bexley 001	1.112	1.118	0.910	0.904	0.958	0.959

E02000066	Bexley 002	1.145	1.144	0.951	0.947	0.980	0.978
E02000067	Bexley 003	1.120	1.122	0.964	0.959	0.997	0.995
E02000068	Bexley 004	1.128	1.131	0.971	0.973	0.991	0.989
E02000069	Bexley 005	1.123	1.124	0.977	0.979	1.017	1.014
E02000070	Bexley 006	1.121	1.119	1.022	1.012	1.042	1.033
E02000071	Bexley 007	1.110	1.112	0.978	0.983	1.016	1.013
E02000072	Bexley 008	1.126	1.131	0.929	0.918	0.979	0.979
E02000073	Bexley 009	1.119	1.117	1.025	1.016	1.040	1.032
E02000074	Bexley 010	1.134	1.133	0.994	0.983	1.026	1.023
E02000075	Bexley 011	1.129	1.126	1.033	1.030	1.052	1.043
E02000077	Bexley 013	1.118	1.117	0.992	0.991	1.022	1.018
E02000078	Bexley 014	1.110	1.108	1.008	1.007	1.034	1.027
E02000079	Bexley 015	1.139	1.139	1.027	1.026	1.038	1.030
E02000080	Bexley 016	1.131	1.130	1.003	1.010	1.026	1.020
E02000081	Bexley 017	1.118	1.120	0.993	1.000	1.033	1.027
E02000082	Bexley 018	1.112	1.111	1.017	1.013	1.034	1.026
E02000083	Bexley 019	1.129	1.129	1.007	1.003	1.024	1.016
E02000084	Bexley 020	1.116	1.114	1.015	1.018	1.042	1.034
E02000085	Bexley 021	1.114	1.114	1.000	1.003	1.028	1.021
E02000086	Bexley 022	1.101	1.101	1.005	1.008	1.031	1.027
E02000087	Bexley 023	1.118	1.118	1.027	1.033	1.054	1.047
E02000088	Bexley 024	1.104	1.104	1.022	1.019	1.036	1.033
E02000089	Bexley 025	1.118	1.115	1.036	1.028	1.049	1.039
E02000090	Bexley 026	1.134	1.136	1.003	1.014	1.032	1.027
E02000091	Bexley 027	1.139	1.137	1.018	1.021	1.043	1.032
E02000092	Bexley 028	1.122	1.124	0.993	0.989	1.023	1.019
E02006785	Bexley 029	1.140	1.140	1.010	1.004	1.045	1.043
Authority	Brent	1.153	1.156	0.985	0.984	1.011	1.010
Authority	Bromley	1.124	1.123	1.002	1.004	1.024	1.019
Authority	Croydon	1.129	1.128	0.980	0.981	0.998	0.997
Authority	Ealing	1.086	1.086	0.888	0.889	0.954	0.954
Authority	Enfield	1.127	1.126	0.974	0.971	0.992	0.987
Authority	Greenwich	1.177	1.183	1.004	1.009	1.051	1.053
Authority	Harrow	1.101	1.097	0.968	0.962	0.977	0.970
Authority	Havering	1.140	1.142	1.018	1.021	1.053	1.053
E02000464	Havering 001	1.144	1.151	0.978	0.984	1.035	1.040
E02000465	Havering 002	1.147	1.147	0.981	0.983	1.031	1.033
E02000466	Havering 003	1.143	1.144	1.005	1.005	1.051	1.052
E02000467	Havering 004	1.156	1.158	0.991	0.985	1.027	1.025
E02000468	Havering 005	1.141	1.142	1.021	1.025	1.063	1.063
E02000469	Havering 006	1.148	1.150	0.994	1.000	1.038	1.040
E02000470	Havering 007	1.138	1.140	1.037	1.035	1.066	1.061
E02000471	Havering 008	1.127	1.132	1.041	1.057	1.078	1.081
E02000472	Havering 009	1.132	1.135	1.013	1.022	1.062	1.061
E02000473	Havering 010	1.122	1.127	0.995	1.019	1.044	1.052
E02000474	Havering 011	1.144	1.146	1.016	1.012	1.054	1.052
E02000475	Havering 012	1.138	1.139	1.032	1.032	1.064	1.059

E02000476	Havering 013	1.146	1.147	1.026	1.027	1.043	1.042
E02000477	Havering 014	1.131	1.133	1.043	1.041	1.069	1.065
E02000478	Havering 015	1.126	1.128	1.043	1.056	1.080	1.079
E02000479	Havering 016	1.138	1.141	1.010	1.013	1.039	1.036
E02000480	Havering 017	1.145	1.144	1.017	1.019	1.045	1.044
E02000481	Havering 018	1.150	1.152	1.032	1.030	1.058	1.052
E02000482	Havering 019	1.133	1.136	1.044	1.054	1.064	1.068
E02000483	Havering 020	1.151	1.150	1.035	1.032	1.066	1.061
E02000484	Havering 021	1.127	1.128	1.037	1.033	1.066	1.061
E02000485	Havering 022	1.141	1.143	1.020	1.028	1.052	1.054
E02000486	Havering 023	1.142	1.144	1.015	1.026	1.056	1.059
E02000487	Havering 024	1.128	1.132	1.040	1.052	1.072	1.076
E02000488	Havering 025	1.144	1.145	1.033	1.039	1.067	1.067
E02000489	Havering 026	1.154	1.155	1.019	1.013	1.057	1.055
E02000490	Havering 027	1.144	1.148	1.007	1.018	1.057	1.061
E02000491	Havering 028	1.133	1.139	1.001	0.997	1.046	1.047
E02000492	Havering 029	1.117	1.125	1.026	1.025	1.053	1.045
E02000493	Havering 030	1.149	1.148	1.006	1.007	1.040	1.041
Authority	Hillingdon	1.100	1.101	0.948	0.948	1.003	1.006
Authority	Hounslow	1.099	1.101	0.930	0.929	0.989	0.995
Authority	Kingston upon Thames	1.135	1.135	1.004	1.008	1.031	1.027
Authority	Merton	1.118	1.117	0.966	0.965	0.991	0.993
Authority	Redbridge	1.134	1.134	0.981	0.977	1.011	1.008
Authority	Richmond upon Thames	1.086	1.084	0.935	0.933	0.981	0.981
Authority	Sutton	1.121	1.119	1.000	0.998	1.018	1.010
Authority	Waltham Forest	1.148	1.151	0.969	0.972	1.006	1.009
Region	NE	1.098	1.098	0.869	0.869	0.937	0.937
Region	NW	1.112	1.112	0.936	0.936	0.985	0.985
Region	SCOTLAND	1.080	1.080	0.826	0.826	0.911	0.911
Region	SE	1.097	1.097	0.942	0.941	0.989	0.988
Authority	Slough	1.074	1.075	0.886	0.882	0.968	0.971
Authority	Windsor and Maidenhead	1.069	1.068	0.934	0.921	0.978	0.977
Authority	Aylesbury Vale	1.128	1.133	0.971	0.974	1.034	1.036
Authority	Chiltern	1.037	1.038	0.908	0.898	0.962	0.961
Authority	South Bucks	1.042	1.040	0.918	0.907	0.972	0.969
Authority	Wycombe	1.036	1.035	0.896	0.889	0.951	0.947
Authority	Dartford	1.169	1.173	1.037	1.042	1.102	1.105
E02005028	Dartford 001	1.191	1.212	1.019	1.013	1.087	1.096
E02005029	Dartford 002	1.188	1.195	1.067	1.057	1.113	1.109
E02005030	Dartford 003	1.158	1.164	1.020	1.030	1.079	1.083
E02005031	Dartford 004	1.202	1.213	1.031	1.038	1.105	1.110
E02005032	Dartford 005	1.193	1.197	1.047	1.047	1.102	1.099
E02005033	Dartford 006	1.150	1.151	1.037	1.037	1.078	1.079
E02005034	Dartford 007	1.191	1.199	1.092	1.087	1.143	1.142
E02005035	Dartford 008	1.169	1.172	1.039	1.047	1.111	1.114
E02005036	Dartford 009	1.168	1.180	1.013	1.025	1.091	1.105
E02005037	Dartford 010	1.178	1.184	1.042	1.070	1.142	1.154

E02005038	Dartford 011	1.172	1.181	1.053	1.078	1.124	1.135
E02005039	Dartford 012	1.199	1.206	1.034	1.043	1.097	1.089
E02005040	Dartford 013	1.187	1.194	1.052	1.067	1.104	1.104
Authority	Gravesham	1.112	1.110	0.952	0.947	0.971	0.962
E02005055	Gravesham 001	1.115	1.115	0.914	0.909	0.940	0.935
E02005056	Gravesham 002	1.137	1.138	0.973	0.975	0.970	0.956
E02005057	Gravesham 003	1.100	1.099	0.924	0.914	0.958	0.951
E02005058	Gravesham 004	1.112	1.110	0.916	0.908	0.947	0.942
E02005059	Gravesham 005	1.103	1.099	0.955	0.942	0.978	0.966
E02005060	Gravesham 006	1.125	1.124	0.971	0.967	0.990	0.978
E02005061	Gravesham 007	1.119	1.116	0.931	0.923	0.961	0.958
E02005062	Gravesham 008	1.097	1.096	0.958	0.953	0.987	0.977
E02005063	Gravesham 009	1.118	1.114	0.964	0.956	0.980	0.967
E02005064	Gravesham 010	1.090	1.088	0.982	0.975	1.023	1.017
E02005065	Gravesham 011	1.109	1.107	0.932	0.920	0.970	0.964
E02005066	Gravesham 012	1.093	1.090	0.998	0.989	1.019	1.009
E02005067	Gravesham 013	1.071	1.066	0.992	0.973	1.010	1.000
Authority	Maidstone	1.139	1.140	1.027	1.024	1.051	1.046
Authority	Medway	1.111	1.112	0.985	0.982	1.015	1.014
E02003314	Medway 001	1.095	1.095	0.970	0.966	1.017	1.009
E02003315	Medway 002	1.072	1.069	0.975	0.963	1.011	1.000
E02003316	Medway 003	1.091	1.089	0.975	0.969	1.010	0.998
E02003317	Medway 004	1.098	1.101	1.005	0.998	1.027	1.022
E02003318	Medway 005	1.092	1.091	0.998	0.992	1.010	1.010
E02003319	Medway 006	1.122	1.121	0.978	0.973	1.013	1.011
E02003320	Medway 007	1.098	1.104	0.969	0.979	1.010	1.016
E02003321	Medway 008	1.112	1.114	0.944	0.938	0.993	0.992
E02003322	Medway 009	1.131	1.132	0.935	0.926	0.987	0.990
E02003323	Medway 010	1.107	1.106	0.940	0.936	0.994	0.998
E02003324	Medway 011	1.111	1.112	0.996	0.993	1.022	1.022
E02003325	Medway 012	1.137	1.138	0.968	0.967	1.005	1.010
E02003326	Medway 013	1.121	1.120	0.962	0.958	1.012	1.016
E02003327	Medway 014	1.122	1.122	0.980	0.979	1.013	1.016
E02003328	Medway 015	1.131	1.134	0.998	1.001	1.027	1.031
E02003329	Medway 016	1.138	1.135	1.015	1.008	1.049	1.041
E02003330	Medway 017	1.114	1.115	0.955	0.949	0.997	0.994
E02003331	Medway 018	1.133	1.132	0.981	0.973	1.013	1.010
E02003332	Medway 019	1.108	1.107	0.979	0.972	1.011	1.006
E02003333	Medway 020	1.130	1.130	0.949	0.942	0.980	0.976
E02003334	Medway 021	1.115	1.116	0.939	0.933	0.992	0.997
E02003335	Medway 022	1.121	1.124	0.899	0.891	0.967	0.970
E02003336	Medway 023	1.124	1.121	1.005	0.997	1.028	1.023
E02003337	Medway 024	1.110	1.111	0.990	0.983	1.018	1.012
E02003338	Medway 025	1.122	1.121	0.991	0.984	1.019	1.018
E02003339	Medway 026	1.107	1.108	1.004	0.994	1.025	1.017
E02003340	Medway 027	1.111	1.114	0.969	0.970	1.004	1.004
E02003341	Medway 028	1.080	1.077	0.955	0.949	1.002	0.991

E02003342	Medway 029	1.106	1.107	0.982	0.980	1.006	1.010
E02003343	Medway 030	1.111	1.112	1.034	1.030	1.045	1.038
E02003344	Medway 031	1.098	1.097	0.957	0.953	1.002	1.001
E02003345	Medway 032	1.081	1.079	0.992	0.981	1.010	1.004
E02003346	Medway 033	1.122	1.122	1.010	1.015	1.037	1.035
E02003347	Medway 034	1.069	1.067	0.957	0.950	0.989	0.985
E02003348	Medway 035	1.118	1.116	1.037	1.036	1.041	1.035
E02003349	Medway 036	1.107	1.105	0.997	0.994	1.014	1.009
E02003350	Medway 037	1.122	1.118	1.009	1.004	1.019	1.011
E02003351	Medway 038	1.089	1.088	0.981	0.972	1.007	1.005
Authority	Sevenoaks	1.096	1.095	0.990	0.981	1.019	1.016
Authority	Swale	1.159	1.164	1.021	1.017	1.049	1.046
Authority	Tonbridge and Malling	1.124	1.125	1.016	1.009	1.036	1.031
Authority	Elmbridge	1.071	1.067	0.953	0.932	0.967	0.952
Authority	Epsom and Ewell	1.102	1.099	0.970	0.962	0.986	0.976
Authority	Guildford	1.057	1.059	0.910	0.908	0.972	0.977
Authority	Mole Valley	1.079	1.074	0.982	0.963	0.982	0.968
Authority	Reigate and Banstead	1.114	1.113	0.976	0.970	1.011	1.007
Authority	Runnymede	1.080	1.081	0.932	0.934	0.982	0.989
Authority	Spelthorne	1.061	1.059	0.906	0.904	0.958	0.953
Authority	Tandridge	1.100	1.098	0.979	0.974	0.998	0.990
Authority	Woking	1.052	1.048	0.885	0.873	0.944	0.936
Region	SW	1.134	1.134	0.986	0.986	1.024	1.024
Region	WALES	1.077	1.077	0.869	0.869	0.942	0.942
Region	West Midlands	1.142	1.142	0.989	0.989	1.019	1.019
Region	Yorkshire and Humber	1.108	1.108	0.921	0.921	0.970	0.970

PM Peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	O	D	O	D	O	D
Region	EAST	1.097	1.092	0.942	0.918	1.007	0.987
Authority	Bedford	1.106	1.106	0.992	0.949	1.034	1.009
Authority	Central Bedfordshire	1.111	1.117	1.003	0.982	1.044	1.039
Authority	Luton	1.081	1.050	0.964	0.865	1.007	0.936
Authority	Cambridge	1.075	1.067	0.871	0.825	0.981	0.938
Authority	East Cambridgeshire	1.078	1.071	0.891	0.906	0.982	0.979
Authority	Fenland	1.100	1.135	0.891	0.920	0.982	1.037
Authority	Huntingdonshire	1.077	1.063	0.888	0.883	0.982	0.976
Authority	Peterborough	1.103	1.146	0.884	0.919	0.994	1.047
Authority	South Cambridgeshire	1.073	1.056	0.885	0.887	0.985	0.979
Authority	Basildon	1.105	1.111	0.993	0.944	1.033	1.018
E02004424	Basildon 001	1.088	1.082	0.969	0.986	1.017	1.030
E02004425	Basildon 002	1.105	1.102	0.999	0.961	1.038	1.019
E02004426	Basildon 003	1.114	1.107	1.015	0.977	1.040	1.024
E02004427	Basildon 004	1.109	1.113	0.995	0.972	1.034	1.033
E02004428	Basildon 005	1.114	1.123	0.986	0.952	1.034	1.029
E02004429	Basildon 006	1.105	1.109	0.979	0.970	1.025	1.033
E02004430	Basildon 007	1.087	1.084	0.979	0.960	1.024	1.020
E02004431	Basildon 008	1.094	1.086	0.993	0.940	1.029	1.007
E02004432	Basildon 009	1.095	1.081	0.999	0.981	1.035	1.033
E02004433	Basildon 010	1.094	1.095	0.971	0.938	1.024	1.014
E02004434	Basildon 011	1.095	1.098	0.994	0.930	1.029	1.008
E02004435	Basildon 012	1.100	1.123	0.992	0.934	1.032	1.014
E02004436	Basildon 013	1.119	1.144	0.944	0.908	1.005	1.009
E02004437	Basildon 014	1.088	1.110	0.980	0.934	1.026	1.017
E02004438	Basildon 015	1.110	1.127	1.003	0.968	1.039	1.025
E02004439	Basildon 016	1.125	1.149	0.954	0.895	1.015	1.006
E02004440	Basildon 017	1.116	1.138	0.942	0.909	1.009	1.009
E02004441	Basildon 018	1.115	1.129	0.978	0.927	1.031	1.014
E02004442	Basildon 019	1.124	1.142	0.957	0.911	1.017	1.008
E02004443	Basildon 020	1.122	1.125	1.017	0.968	1.054	1.028
E02004444	Basildon 021	1.095	1.085	0.998	0.953	1.032	1.015
E02004445	Basildon 022	1.115	1.121	0.993	0.922	1.029	1.007
Authority	Braintree	1.085	1.067	0.909	0.890	0.990	0.964
Authority	Brentwood	1.087	1.059	0.986	0.926	1.030	0.991
E02004464	Brentwood 001	1.069	1.034	0.981	0.947	1.020	1.000
E02004465	Brentwood 002	1.086	1.054	0.984	0.925	1.025	0.987
E02004466	Brentwood 003	1.083	1.066	0.960	0.906	1.017	0.977
E02004467	Brentwood 004	1.085	1.067	0.961	0.902	1.010	0.976
E02004468	Brentwood 005	1.095	1.067	1.002	0.959	1.034	1.007
E02004469	Brentwood 006	1.087	1.058	0.995	0.953	1.037	1.006
E02004470	Brentwood 007	1.094	1.072	0.989	0.908	1.032	0.978
E02004471	Brentwood 008	1.090	1.068	0.987	0.911	1.031	0.989

E02004472	Brentwood 009	1.076	1.039	0.987	0.945	1.031	1.002
Authority	Castle Point	1.083	1.055	0.977	0.916	1.017	0.976
E02004473	Castle Point 001	1.070	1.042	0.973	0.915	1.008	0.977
E02004474	Castle Point 002	1.093	1.064	0.995	0.950	1.025	0.987
E02004475	Castle Point 003	1.078	1.045	0.961	0.914	0.997	0.975
E02004476	Castle Point 004	1.076	1.039	0.969	0.941	1.010	0.982
E02004477	Castle Point 005	1.074	1.051	0.981	0.941	1.016	0.986
E02004478	Castle Point 006	1.091	1.065	0.979	0.930	1.019	0.977
E02004479	Castle Point 007	1.081	1.050	0.987	0.922	1.027	0.978
E02004480	Castle Point 008	1.060	1.036	0.932	0.874	0.998	0.960
E02004481	Castle Point 009	1.092	1.078	0.973	0.916	1.029	0.990
E02004482	Castle Point 010	1.089	1.075	0.957	0.870	1.011	0.963
E02004483	Castle Point 011	1.091	1.063	0.994	0.911	1.025	0.975
E02004484	Castle Point 012	1.079	1.054	0.960	0.897	1.009	0.960
Authority	Chelmsford	1.100	1.104	0.916	0.921	0.997	1.004
Authority	Colchester	1.116	1.149	0.914	0.939	0.998	1.038
Authority	Epping Forest	1.101	1.080	0.976	0.940	1.025	0.987
Authority	Harlow	1.098	1.092	0.984	0.920	1.025	0.990
Authority	Maldon	1.091	1.078	0.922	0.927	0.993	0.988
Authority	Rochford	1.096	1.085	0.984	0.948	1.028	1.012
E02004563	Rochford 001	1.096	1.084	0.984	0.954	1.023	1.020
E02004564	Rochford 002	1.085	1.069	0.966	0.956	1.015	1.012
E02004565	Rochford 003	1.094	1.086	0.981	0.960	1.025	1.018
E02004566	Rochford 004	1.106	1.100	0.986	0.909	1.033	0.990
E02004567	Rochford 005	1.097	1.086	0.982	0.961	1.030	1.021
E02004568	Rochford 006	1.092	1.080	0.981	0.930	1.026	1.003
E02004569	Rochford 007	1.094	1.093	0.986	0.943	1.028	1.007
E02004570	Rochford 008	1.108	1.105	0.995	0.955	1.037	1.017
E02004571	Rochford 009	1.095	1.085	0.986	0.965	1.030	1.020
E02004572	Rochford 010	1.085	1.064	0.976	0.924	1.016	0.991
Authority	Southend-on-Sea	1.109	1.112	0.984	0.935	1.033	1.010
E02003279	Southend-on-Sea 001	1.102	1.100	0.987	0.977	1.034	1.025
E02003280	Southend-on-Sea 002	1.106	1.106	0.991	0.957	1.034	1.017
E02003281	Southend-on-Sea 003	1.127	1.132	0.995	0.984	1.046	1.045
E02003282	Southend-on-Sea 004	1.124	1.117	1.012	0.970	1.055	1.021
E02003283	Southend-on-Sea 005	1.101	1.104	0.958	0.936	1.017	1.011
E02003284	Southend-on-Sea 006	1.099	1.104	0.978	0.909	1.022	0.995
E02003285	Southend-on-Sea 007	1.102	1.105	0.965	0.878	1.015	0.982
E02003286	Southend-on-Sea 008	1.099	1.089	0.980	0.960	1.028	1.010
E02003287	Southend-on-Sea 009	1.114	1.124	0.964	0.947	1.025	1.020
E02003288	Southend-on-Sea 010	1.111	1.138	0.983	0.914	1.032	1.003
E02003289	Southend-on-Sea 011	1.100	1.090	0.985	0.924	1.032	0.991
E02003290	Southend-on-Sea 012	1.109	1.105	0.987	0.938	1.037	1.005
E02003291	Southend-on-Sea 013	1.102	1.110	0.977	0.919	1.026	1.007
E02003292	Southend-on-Sea 014	1.117	1.134	0.965	0.896	1.026	0.997
E02003293	Southend-on-Sea 015	1.115	1.132	0.988	0.946	1.036	1.020
E02003294	Southend-on-Sea 016	1.113	1.109	0.995	0.977	1.040	1.028

E02003295	Southend-on-Sea 017	1.101	1.101	0.958	0.925	1.017	1.009
Authority	Tendring	1.118	1.142	0.925	0.941	0.996	1.021
Authority	Uttlesford	1.110	1.131	0.974	1.004	1.024	1.057
Authority	Broxbourne	1.098	1.061	0.952	0.901	1.001	0.951
Authority	Dacorum	1.097	1.068	0.968	0.927	1.012	0.967
Authority	East Hertfordshire	1.095	1.075	0.996	0.962	1.034	1.002
Authority	Hertsmere	1.086	1.046	0.974	0.909	1.020	0.953
Authority	North Hertfordshire	1.089	1.068	0.981	0.924	1.016	0.983
Authority	St Albans	1.089	1.059	0.988	0.931	1.030	0.980
Authority	Stevenage	1.096	1.080	0.989	0.923	1.030	0.984
Authority	Three Rivers	1.091	1.045	0.958	0.907	1.013	0.950
Authority	Watford	1.112	1.099	0.973	0.923	1.025	0.981
Authority	Welwyn Hatfield	1.107	1.122	0.990	0.949	1.031	1.031
Authority	Breckland	1.103	1.106	0.926	0.931	0.992	0.993
Authority	Broadland	1.110	1.123	0.925	0.967	1.005	1.042
Authority	Great Yarmouth	1.101	1.092	0.911	0.888	0.994	0.970
Authority	King's Lynn and West Norfolk	1.063	1.028	0.878	0.839	0.964	0.930
Authority	North Norfolk	1.091	1.069	0.922	0.887	0.987	0.957
Authority	Norwich	1.103	1.119	0.902	0.894	0.992	0.995
Authority	South Norfolk	1.120	1.145	0.929	0.977	1.010	1.068
Authority	Babergh	1.091	1.073	0.917	0.905	0.989	0.970
Authority	Forest Heath	1.098	1.100	0.919	0.937	1.005	1.003
Authority	Ipswich	1.087	1.065	0.897	0.851	0.991	0.940
Authority	Mid Suffolk	1.092	1.081	0.921	0.920	0.994	0.992
Authority	St Edmundsbury	1.080	1.048	0.907	0.870	0.986	0.940
Authority	Suffolk Coastal	1.094	1.079	0.924	0.919	0.994	0.977
Authority	Waveney	1.100	1.096	0.913	0.903	0.993	0.981
Region	East Midlands	1.116	1.116	0.949	0.949	1.015	1.015
Region	London	1.112	1.123	0.979	0.991	1.030	1.036
Authority	Camden	1.134	1.179	0.998	1.060	1.034	1.088
Authority	City of London	1.096	1.103	0.985	0.975	1.035	1.020
Authority	Hackney	1.141	1.199	0.995	1.046	1.038	1.084
Authority	Hammersmith and Fulham	1.115	1.119	0.992	0.998	1.034	1.020
Authority	Haringey	1.109	1.101	0.980	0.976	1.022	1.003
Authority	Islington	1.130	1.176	0.987	1.019	1.033	1.057
Authority	Kensington and Chelsea	1.091	1.049	0.980	0.918	1.031	0.945
Authority	Lambeth	1.116	1.126	0.985	0.984	1.031	1.014
Authority	Lewisham	1.116	1.128	0.992	1.029	1.037	1.059
Authority	Newham	1.132	1.173	1.006	1.064	1.041	1.100
Authority	Southwark	1.123	1.151	0.986	1.016	1.033	1.047
Authority	Tower Hamlets	1.155	1.268	1.037	1.161	1.041	1.181
Authority	Wandsworth	1.109	1.101	0.991	1.005	1.033	1.021
Authority	Westminster	1.122	1.146	0.995	1.032	1.036	1.057
Authority	Barking and Dagenham	1.132	1.188	0.979	0.981	1.037	1.079
Authority	Barnet	1.123	1.135	0.984	0.977	1.033	1.038
Authority	Bexley	1.110	1.104	0.979	0.969	1.025	1.025
E02000065	Bexley 001	1.100	1.118	0.941	0.884	0.992	0.990

E02000066	Bexley 002	1.125	1.133	0.955	0.912	0.994	1.004
E02000067	Bexley 003	1.104	1.108	0.963	0.929	1.013	1.004
E02000068	Bexley 004	1.106	1.113	0.970	0.925	1.011	1.001
E02000069	Bexley 005	1.112	1.109	0.961	0.963	1.019	1.023
E02000070	Bexley 006	1.108	1.103	0.984	0.993	1.035	1.037
E02000071	Bexley 007	1.101	1.095	0.960	0.966	1.013	1.022
E02000072	Bexley 008	1.103	1.129	0.935	0.905	1.000	1.006
E02000073	Bexley 009	1.110	1.094	0.991	0.997	1.033	1.036
E02000074	Bexley 010	1.113	1.121	0.976	0.962	1.033	1.028
E02000075	Bexley 011	1.116	1.103	0.993	1.012	1.042	1.043
E02000077	Bexley 013	1.108	1.096	0.966	0.972	1.018	1.024
E02000078	Bexley 014	1.104	1.089	0.977	0.991	1.027	1.030
E02000079	Bexley 015	1.118	1.112	1.002	0.988	1.037	1.022
E02000080	Bexley 016	1.115	1.106	0.985	0.977	1.025	1.025
E02000081	Bexley 017	1.103	1.106	0.965	0.985	1.027	1.031
E02000082	Bexley 018	1.102	1.086	0.979	0.993	1.027	1.028
E02000083	Bexley 019	1.110	1.101	0.987	0.968	1.027	1.018
E02000084	Bexley 020	1.108	1.093	0.982	1.003	1.033	1.035
E02000085	Bexley 021	1.106	1.089	0.974	0.984	1.023	1.025
E02000086	Bexley 022	1.098	1.084	0.971	0.997	1.023	1.033
E02000087	Bexley 023	1.107	1.099	0.983	1.024	1.042	1.047
E02000088	Bexley 024	1.099	1.089	0.979	1.005	1.027	1.038
E02000089	Bexley 025	1.110	1.093	1.000	1.007	1.041	1.039
E02000090	Bexley 026	1.114	1.113	0.980	0.986	1.032	1.022
E02000091	Bexley 027	1.121	1.114	0.991	0.995	1.038	1.031
E02000092	Bexley 028	1.103	1.108	0.977	0.964	1.029	1.024
E02006785	Bexley 029	1.124	1.131	0.979	0.993	1.048	1.046
Authority	Brent	1.123	1.143	0.973	0.943	1.024	1.009
Authority	Bromley	1.110	1.098	0.983	0.973	1.029	1.014
Authority	Croydon	1.110	1.100	0.970	0.935	1.020	0.984
Authority	Ealing	1.077	1.092	0.884	0.871	0.985	0.972
Authority	Enfield	1.110	1.100	0.969	0.929	1.015	0.987
Authority	Greenwich	1.142	1.197	0.985	0.994	1.040	1.079
Authority	Harrow	1.096	1.053	0.966	0.911	1.009	0.953
Authority	Havering	1.121	1.135	0.993	1.006	1.041	1.067
E02000464	Havering 001	1.127	1.154	0.959	0.983	1.032	1.063
E02000465	Havering 002	1.131	1.142	0.972	0.972	1.033	1.053
E02000466	Havering 003	1.129	1.140	0.987	0.997	1.046	1.071
E02000467	Havering 004	1.127	1.157	0.980	0.965	1.030	1.050
E02000468	Havering 005	1.127	1.134	0.994	1.018	1.054	1.074
E02000469	Havering 006	1.128	1.147	0.977	0.983	1.034	1.062
E02000470	Havering 007	1.114	1.128	1.000	1.022	1.043	1.072
E02000471	Havering 008	1.116	1.131	0.990	1.063	1.052	1.096
E02000472	Havering 009	1.116	1.130	0.980	1.019	1.045	1.074
E02000473	Havering 010	1.111	1.122	0.964	1.026	1.028	1.070
E02000474	Havering 011	1.121	1.141	0.988	0.997	1.045	1.063
E02000475	Havering 012	1.121	1.130	0.996	1.020	1.048	1.068

E02000476	Havering 013	1.122	1.133	1.003	0.990	1.039	1.039
E02000477	Havering 014	1.120	1.125	1.002	1.032	1.050	1.074
E02000478	Havering 015	1.117	1.122	0.995	1.065	1.054	1.097
E02000479	Havering 016	1.116	1.129	0.989	0.981	1.035	1.043
E02000480	Havering 017	1.125	1.133	1.001	0.992	1.041	1.050
E02000481	Havering 018	1.125	1.142	1.005	1.020	1.042	1.068
E02000482	Havering 019	1.119	1.132	0.995	1.056	1.040	1.087
E02000483	Havering 020	1.128	1.140	1.007	1.013	1.052	1.069
E02000484	Havering 021	1.115	1.121	0.997	1.024	1.049	1.069
E02000485	Havering 022	1.121	1.132	0.988	1.017	1.038	1.067
E02000486	Havering 023	1.124	1.138	0.983	1.019	1.040	1.072
E02000487	Havering 024	1.118	1.130	0.993	1.055	1.047	1.092
E02000488	Havering 025	1.129	1.135	0.999	1.033	1.049	1.079
E02000489	Havering 026	1.133	1.150	0.994	0.999	1.048	1.067
E02000490	Havering 027	1.127	1.148	0.974	1.017	1.043	1.077
E02000491	Havering 028	1.109	1.140	0.978	0.989	1.038	1.064
E02000492	Havering 029	1.095	1.126	0.985	1.025	1.031	1.072
E02000493	Havering 030	1.129	1.139	0.992	0.981	1.040	1.055
Authority	Hillingdon	1.087	1.104	0.921	0.947	0.998	1.036
Authority	Hounslow	1.086	1.111	0.913	0.920	1.000	1.014
Authority	Kingston upon Thames	1.115	1.115	0.982	0.976	1.030	1.024
Authority	Merton	1.103	1.088	0.965	0.916	1.019	0.971
Authority	Redbridge	1.116	1.117	0.972	0.945	1.022	1.017
Authority	Richmond upon Thames	1.077	1.080	0.901	0.922	0.994	0.987
Authority	Sutton	1.107	1.089	0.980	0.964	1.025	1.003
Authority	Waltham Forest	1.124	1.149	0.968	0.940	1.020	1.021
Region	NE	1.099	1.099	0.863	0.863	0.958	0.958
Region	NW	1.102	1.102	0.920	0.920	0.990	0.990
Region	SCOTLAND	1.087	1.087	0.826	0.826	0.943	0.943
Region	SE	1.085	1.083	0.922	0.910	0.997	0.990
Authority	Slough	1.067	1.080	0.886	0.856	0.987	0.977
Authority	Windsor and Maidenhead	1.064	1.055	0.908	0.900	0.991	0.982
Authority	Aylesbury Vale	1.105	1.155	0.927	0.983	1.003	1.083
Authority	Chiltern	1.047	1.029	0.896	0.878	0.979	0.968
Authority	South Bucks	1.049	1.021	0.904	0.882	0.985	0.963
Authority	Wycombe	1.044	1.013	0.889	0.850	0.973	0.938
Authority	Dartford	1.136	1.192	1.004	1.037	1.069	1.125
E02005028	Dartford 001	1.129	1.250	0.989	1.006	1.080	1.115
E02005029	Dartford 002	1.149	1.206	1.023	1.040	1.086	1.111
E02005030	Dartford 003	1.127	1.175	0.993	1.014	1.051	1.102
E02005031	Dartford 004	1.168	1.231	0.992	1.033	1.089	1.125
E02005032	Dartford 005	1.160	1.210	1.010	1.026	1.087	1.102
E02005033	Dartford 006	1.124	1.140	1.009	1.018	1.050	1.116
E02005034	Dartford 007	1.157	1.209	1.045	1.083	1.115	1.153
E02005035	Dartford 008	1.141	1.183	1.008	1.045	1.080	1.130
E02005036	Dartford 009	1.130	1.211	0.979	1.026	1.072	1.128
E02005037	Dartford 010	1.151	1.205	0.996	1.097	1.098	1.178

E02005038	Dartford 011	1.140	1.207	1.002	1.095	1.086	1.166
E02005039	Dartford 012	1.155	1.213	1.022	1.039	1.062	1.128
E02005040	Dartford 013	1.153	1.225	1.016	1.111	1.064	1.175
Authority	Gravesham	1.101	1.075	0.953	0.905	0.995	0.956
E02005055	Gravesham 001	1.100	1.089	0.933	0.871	0.966	0.941
E02005056	Gravesham 002	1.116	1.111	0.973	0.900	1.005	0.940
E02005057	Gravesham 003	1.093	1.071	0.927	0.884	0.983	0.949
E02005058	Gravesham 004	1.102	1.078	0.922	0.875	0.964	0.946
E02005059	Gravesham 005	1.096	1.065	0.935	0.911	0.991	0.958
E02005060	Gravesham 006	1.109	1.091	0.959	0.930	1.006	0.970
E02005061	Gravesham 007	1.108	1.086	0.928	0.899	0.983	0.960
E02005062	Gravesham 008	1.097	1.072	0.949	0.932	0.993	0.975
E02005063	Gravesham 009	1.110	1.072	0.957	0.920	0.991	0.966
E02005064	Gravesham 010	1.085	1.058	0.980	0.948	1.031	1.002
E02005065	Gravesham 011	1.103	1.083	0.929	0.899	0.998	0.960
E02005066	Gravesham 012	1.084	1.056	0.982	0.955	1.020	0.994
E02005067	Gravesham 013	1.067	1.036	0.968	0.953	1.011	0.993
Authority	Maidstone	1.110	1.121	1.002	0.983	1.042	1.039
Authority	Medway	1.096	1.087	0.983	0.921	1.024	0.992
E02003314	Medway 001	1.086	1.075	0.980	0.942	1.022	1.003
E02003315	Medway 002	1.071	1.044	0.974	0.938	1.017	0.995
E02003316	Medway 003	1.086	1.061	0.983	0.933	1.018	0.991
E02003317	Medway 004	1.087	1.077	0.986	0.949	1.028	1.004
E02003318	Medway 005	1.078	1.066	0.969	0.956	1.009	1.003
E02003319	Medway 006	1.104	1.098	0.983	0.899	1.025	0.980
E02003320	Medway 007	1.092	1.085	0.970	0.924	1.022	0.991
E02003321	Medway 008	1.096	1.099	0.938	0.900	0.999	0.986
E02003322	Medway 009	1.105	1.123	0.948	0.874	0.983	0.976
E02003323	Medway 010	1.092	1.090	0.954	0.897	1.013	0.985
E02003324	Medway 011	1.096	1.085	0.996	0.926	1.029	0.994
E02003325	Medway 012	1.113	1.127	0.972	0.888	1.022	0.978
E02003326	Medway 013	1.103	1.101	0.973	0.909	1.026	0.994
E02003327	Medway 014	1.103	1.101	0.979	0.926	1.025	0.991
E02003328	Medway 015	1.110	1.120	0.993	0.923	1.032	0.995
E02003329	Medway 016	1.119	1.111	1.019	0.917	1.053	0.989
E02003330	Medway 017	1.097	1.095	0.957	0.888	1.004	0.978
E02003331	Medway 018	1.107	1.113	0.959	0.928	1.020	0.998
E02003332	Medway 019	1.094	1.084	0.976	0.919	1.017	0.991
E02003333	Medway 020	1.106	1.114	0.954	0.877	0.988	0.965
E02003334	Medway 021	1.099	1.100	0.948	0.882	1.007	0.980
E02003335	Medway 022	1.099	1.117	0.909	0.860	0.972	0.970
E02003336	Medway 023	1.102	1.096	0.985	0.953	1.028	1.008
E02003337	Medway 024	1.095	1.088	0.980	0.931	1.021	0.995
E02003338	Medway 025	1.101	1.094	0.987	0.915	1.026	0.990
E02003339	Medway 026	1.088	1.084	0.988	0.943	1.025	0.999
E02003340	Medway 027	1.096	1.095	0.957	0.922	1.010	0.990
E02003341	Medway 028	1.074	1.051	0.961	0.922	1.010	0.986

E02003342	Medway 029	1.091	1.084	0.961	0.937	1.013	0.998
E02003343	Medway 030	1.094	1.082	1.011	0.989	1.038	1.018
E02003344	Medway 031	1.088	1.077	0.966	0.915	1.015	0.989
E02003345	Medway 032	1.072	1.052	0.983	0.937	1.021	0.991
E02003346	Medway 033	1.107	1.094	0.995	0.964	1.041	1.013
E02003347	Medway 034	1.064	1.045	0.950	0.919	0.991	0.981
E02003348	Medway 035	1.104	1.078	1.017	0.993	1.037	1.013
E02003349	Medway 036	1.092	1.080	0.982	0.947	1.014	0.998
E02003350	Medway 037	1.103	1.087	1.002	0.937	1.019	0.996
E02003351	Medway 038	1.079	1.065	0.971	0.929	1.015	0.993
Authority	Sevenoaks	1.088	1.062	0.990	0.933	1.028	0.995
Authority	Swale	1.125	1.163	1.008	0.991	1.040	1.059
Authority	Tonbridge and Malling	1.101	1.098	0.999	0.965	1.032	1.020
Authority	Elmbridge	1.071	1.033	0.932	0.897	0.990	0.935
Authority	Epsom and Ewell	1.095	1.059	0.960	0.917	1.010	0.957
Authority	Guildford	1.061	1.054	0.899	0.883	0.989	0.980
Authority	Mole Valley	1.077	1.013	0.968	0.903	1.011	0.920
Authority	Reigate and Banstead	1.098	1.086	0.938	0.941	1.009	1.001
Authority	Runnymede	1.076	1.088	0.906	0.933	0.988	1.024
Authority	Spelthorne	1.062	1.045	0.889	0.887	0.981	0.961
Authority	Tandridge	1.090	1.061	0.965	0.933	1.013	0.968
Authority	Woking	1.058	1.028	0.878	0.856	0.981	0.935
Region	SW	1.109	1.109	0.949	0.949	1.019	1.019
Region	WALES	1.078	1.078	0.860	0.860	0.967	0.967
Region	West Midlands	1.114	1.114	0.961	0.961	1.011	1.011
Region	Yorkshire and Humber	1.098	1.098	0.904	0.904	0.976	0.976

Saturday Peak

Area Description		Car Driver		Bus		Rail	
		All purposes		All purposes		All purposes	
Level	Name	O	D	O	D	O	D
Region	EAST	1.103	1.103	0.945	0.944	0.987	0.986
Authority	Bedford	1.117	1.118	0.988	0.986	1.018	1.016
Authority	Central Bedfordshire	1.129	1.129	1.011	1.009	1.044	1.044
Authority	Luton	1.069	1.071	0.927	0.927	0.952	0.947
Authority	Cambridge	1.073	1.074	0.847	0.852	0.924	0.930
Authority	East Cambridgeshire	1.082	1.082	0.905	0.902	0.960	0.960
Authority	Fenland	1.125	1.125	0.908	0.906	0.978	0.975
Authority	Huntingdonshire	1.076	1.076	0.895	0.891	0.955	0.953
Authority	Peterborough	1.128	1.127	0.902	0.904	0.983	0.983
Authority	South Cambridgeshire	1.072	1.072	0.895	0.893	0.959	0.958
Authority	Basildon	1.115	1.116	0.983	0.981	1.018	1.017
E02004424	Basildon 001	1.089	1.089	0.999	0.999	1.030	1.031
E02004425	Basildon 002	1.108	1.108	0.991	0.989	1.030	1.029
E02004426	Basildon 003	1.121	1.121	1.009	1.008	1.029	1.027
E02004427	Basildon 004	1.120	1.121	0.998	0.996	1.031	1.030
E02004428	Basildon 005	1.127	1.127	0.979	0.976	1.026	1.024
E02004429	Basildon 006	1.116	1.116	0.991	0.989	1.033	1.033
E02004430	Basildon 007	1.090	1.091	0.985	0.982	1.024	1.023
E02004431	Basildon 008	1.095	1.097	0.984	0.982	1.015	1.015
E02004432	Basildon 009	1.094	1.096	0.997	0.995	1.031	1.031
E02004433	Basildon 010	1.098	1.099	0.964	0.962	1.015	1.014
E02004434	Basildon 011	1.104	1.106	0.981	0.979	1.014	1.010
E02004435	Basildon 012	1.119	1.121	0.978	0.977	1.015	1.012
E02004436	Basildon 013	1.134	1.136	0.927	0.924	0.980	0.982
E02004437	Basildon 014	1.105	1.107	0.967	0.964	1.017	1.015
E02004438	Basildon 015	1.126	1.126	1.001	1.000	1.026	1.024
E02004439	Basildon 016	1.137	1.138	0.926	0.924	0.981	0.982
E02004440	Basildon 017	1.130	1.132	0.923	0.921	0.989	0.991
E02004441	Basildon 018	1.126	1.126	0.959	0.958	1.006	1.006
E02004442	Basildon 019	1.135	1.135	0.936	0.936	0.989	0.991
E02004443	Basildon 020	1.132	1.129	1.009	1.001	1.037	1.030
E02004444	Basildon 021	1.094	1.095	0.988	0.986	1.021	1.020
E02004445	Basildon 022	1.124	1.124	0.978	0.977	1.009	1.008
Authority	Braintree	1.084	1.085	0.910	0.908	0.958	0.960
Authority	Brentwood	1.079	1.081	0.973	0.971	1.007	1.007
E02004464	Brentwood 001	1.054	1.055	0.974	0.970	1.000	0.999
E02004465	Brentwood 002	1.077	1.078	0.966	0.962	0.997	0.995
E02004466	Brentwood 003	1.078	1.078	0.943	0.940	0.985	0.983
E02004467	Brentwood 004	1.078	1.078	0.945	0.941	0.984	0.982
E02004468	Brentwood 005	1.090	1.091	0.997	0.994	1.022	1.021
E02004469	Brentwood 006	1.082	1.084	0.990	0.988	1.025	1.023
E02004470	Brentwood 007	1.089	1.091	0.977	0.975	1.002	1.001
E02004471	Brentwood 008	1.086	1.087	0.957	0.952	1.004	1.003

E02004472	Brentwood 009	1.061	1.064	0.978	0.977	1.016	1.016
Authority	Castle Point	1.075	1.077	0.962	0.961	0.986	0.984
E02004473	Castle Point 001	1.061	1.062	0.954	0.952	0.974	0.973
E02004474	Castle Point 002	1.091	1.093	0.993	0.992	0.999	0.994
E02004475	Castle Point 003	1.063	1.064	0.951	0.950	0.970	0.968
E02004476	Castle Point 004	1.059	1.059	0.967	0.967	0.986	0.986
E02004477	Castle Point 005	1.073	1.074	0.973	0.972	0.985	0.984
E02004478	Castle Point 006	1.087	1.088	0.972	0.973	0.984	0.981
E02004479	Castle Point 007	1.071	1.073	0.965	0.964	0.985	0.984
E02004480	Castle Point 008	1.045	1.045	0.910	0.906	0.967	0.967
E02004481	Castle Point 009	1.093	1.094	0.955	0.953	1.007	1.004
E02004482	Castle Point 010	1.084	1.086	0.924	0.923	0.971	0.970
E02004483	Castle Point 011	1.085	1.088	0.977	0.975	0.999	0.996
E02004484	Castle Point 012	1.071	1.073	0.927	0.930	0.978	0.977
Authority	Chelmsford	1.109	1.109	0.925	0.925	0.980	0.984
Authority	Colchester	1.137	1.137	0.931	0.932	0.990	0.992
Authority	Epping Forest	1.103	1.103	0.976	0.975	1.002	1.002
Authority	Harlow	1.101	1.102	0.968	0.967	0.999	0.996
Authority	Maldon	1.095	1.095	0.932	0.929	0.979	0.980
Authority	Rochford	1.101	1.102	0.980	0.979	1.009	1.009
E02004563	Rochford 001	1.101	1.102	0.974	0.972	1.018	1.017
E02004564	Rochford 002	1.086	1.086	0.977	0.977	1.003	1.003
E02004565	Rochford 003	1.101	1.102	0.986	0.985	1.015	1.016
E02004566	Rochford 004	1.114	1.114	0.951	0.947	0.997	0.997
E02004567	Rochford 005	1.100	1.100	0.983	0.982	1.015	1.016
E02004568	Rochford 006	1.094	1.096	0.973	0.972	1.004	1.003
E02004569	Rochford 007	1.105	1.107	0.982	0.982	1.006	1.005
E02004570	Rochford 008	1.119	1.119	0.992	0.991	1.014	1.013
E02004571	Rochford 009	1.101	1.102	0.989	0.989	1.016	1.016
E02004572	Rochford 010	1.082	1.083	0.962	0.960	0.993	0.992
Authority	Southend-on-Sea	1.120	1.120	0.973	0.973	1.005	1.006
E02003279	Southend-on-Sea 001	1.115	1.116	0.998	0.997	1.018	1.017
E02003280	Southend-on-Sea 002	1.117	1.118	0.990	0.990	1.011	1.009
E02003281	Southend-on-Sea 003	1.146	1.145	1.003	1.002	1.028	1.027
E02003282	Southend-on-Sea 004	1.131	1.128	1.005	0.999	1.027	1.020
E02003283	Southend-on-Sea 005	1.113	1.114	0.961	0.962	0.996	0.997
E02003284	Southend-on-Sea 006	1.112	1.113	0.959	0.957	0.986	0.984
E02003285	Southend-on-Sea 007	1.106	1.107	0.920	0.920	0.963	0.963
E02003286	Southend-on-Sea 008	1.104	1.105	0.987	0.986	1.008	1.008
E02003287	Southend-on-Sea 009	1.131	1.131	0.969	0.971	1.008	1.010
E02003288	Southend-on-Sea 010	1.131	1.131	0.962	0.962	0.996	0.997
E02003289	Southend-on-Sea 011	1.101	1.102	0.971	0.971	0.996	0.996
E02003290	Southend-on-Sea 012	1.115	1.115	0.976	0.975	1.005	1.005
E02003291	Southend-on-Sea 013	1.115	1.116	0.963	0.963	0.998	0.999
E02003292	Southend-on-Sea 014	1.129	1.129	0.934	0.935	0.987	0.989
E02003293	Southend-on-Sea 015	1.129	1.128	0.986	0.989	1.019	1.021
E02003294	Southend-on-Sea 016	1.124	1.124	0.999	0.998	1.022	1.021

E02003295	Southend-on-Sea 017	1.111	1.111	0.949	0.949	0.991	0.992
Authority	Tendring	1.139	1.138	0.939	0.937	0.984	0.983
Authority	Uttlesford	1.136	1.136	1.000	0.998	1.039	1.036
Authority	Broxbourne	1.093	1.093	0.941	0.940	0.962	0.961
Authority	Dacorum	1.095	1.096	0.965	0.964	0.985	0.982
Authority	East Hertfordshire	1.098	1.100	1.002	0.999	1.025	1.023
Authority	Hertsmere	1.076	1.078	0.964	0.963	0.987	0.986
Authority	North Hertfordshire	1.088	1.089	0.973	0.971	0.997	0.995
Authority	St Albans	1.083	1.085	0.983	0.981	1.007	1.005
Authority	Stevenage	1.094	1.096	0.975	0.974	1.002	1.000
Authority	Three Rivers	1.080	1.081	0.951	0.948	0.977	0.976
Authority	Watford	1.115	1.114	0.961	0.961	0.988	0.987
Authority	Welwyn Hatfield	1.125	1.125	0.985	0.984	1.021	1.021
Authority	Breckland	1.117	1.117	0.937	0.934	0.980	0.977
Authority	Broadland	1.127	1.127	0.963	0.962	1.019	1.016
Authority	Great Yarmouth	1.106	1.105	0.910	0.911	0.965	0.960
Authority	King's Lynn and West Norfolk	1.052	1.052	0.867	0.863	0.926	0.922
Authority	North Norfolk	1.092	1.093	0.916	0.913	0.961	0.959
Authority	Norwich	1.114	1.114	0.904	0.912	0.964	0.968
Authority	South Norfolk	1.145	1.145	0.963	0.961	1.025	1.022
Authority	Babergh	1.095	1.095	0.924	0.922	0.967	0.966
Authority	Forest Heath	1.106	1.105	0.923	0.920	0.993	0.989
Authority	Ipswich	1.081	1.081	0.884	0.888	0.939	0.943
Authority	Mid Suffolk	1.100	1.100	0.939	0.935	0.979	0.976
Authority	St Edmundsbury	1.073	1.073	0.904	0.901	0.948	0.945
Authority	Suffolk Coastal	1.101	1.101	0.942	0.939	0.981	0.978
Authority	Waveney	1.108	1.108	0.920	0.918	0.970	0.967
Region	East Midlands	1.128	1.128	0.961	0.961	1.001	1.001
Region	London	1.127	1.127	0.997	0.998	1.024	1.024
Authority	Camden	1.164	1.169	1.046	1.046	1.049	1.049
Authority	City of London	1.101	1.110	0.988	0.983	1.021	1.018
Authority	Hackney	1.178	1.182	1.036	1.035	1.056	1.056
Authority	Hammersmith and Fulham	1.125	1.125	1.009	1.008	1.022	1.023
Authority	Haringey	1.117	1.116	0.992	0.993	1.001	1.004
Authority	Islington	1.157	1.159	1.012	1.012	1.032	1.033
Authority	Kensington and Chelsea	1.082	1.083	0.966	0.967	0.993	0.997
Authority	Lambeth	1.126	1.126	0.993	0.993	1.012	1.013
Authority	Lewisham	1.131	1.132	1.027	1.027	1.048	1.047
Authority	Newham	1.162	1.164	1.053	1.053	1.071	1.068
Authority	Southwark	1.146	1.149	1.016	1.016	1.032	1.033
Authority	Tower Hamlets	1.224	1.236	1.132	1.133	1.102	1.103
Authority	Wandsworth	1.113	1.112	1.009	1.010	1.021	1.022
Authority	Westminster	1.136	1.139	1.021	1.020	1.035	1.035
Authority	Barking and Dagenham	1.170	1.169	0.983	0.985	1.035	1.036
Authority	Barnet	1.141	1.140	0.999	0.999	1.029	1.029
Authority	Bexley	1.117	1.116	0.989	0.990	1.015	1.015
E02000065	Bexley 001	1.112	1.113	0.898	0.898	0.946	0.947

E02000066	Bexley 002	1.133	1.131	0.935	0.937	0.967	0.968
E02000067	Bexley 003	1.113	1.114	0.951	0.952	0.984	0.985
E02000068	Bexley 004	1.120	1.120	0.959	0.961	0.975	0.976
E02000069	Bexley 005	1.119	1.118	0.978	0.978	1.011	1.011
E02000070	Bexley 006	1.115	1.115	1.011	1.010	1.034	1.034
E02000071	Bexley 007	1.106	1.106	0.983	0.984	1.011	1.012
E02000072	Bexley 008	1.124	1.126	0.913	0.912	0.965	0.966
E02000073	Bexley 009	1.111	1.110	1.016	1.015	1.034	1.033
E02000074	Bexley 010	1.127	1.126	0.977	0.977	1.016	1.016
E02000075	Bexley 011	1.120	1.119	1.029	1.028	1.046	1.045
E02000077	Bexley 013	1.109	1.108	0.991	0.991	1.016	1.016
E02000078	Bexley 014	1.102	1.101	1.008	1.008	1.027	1.027
E02000079	Bexley 015	1.126	1.124	1.006	1.006	1.025	1.023
E02000080	Bexley 016	1.120	1.119	0.998	0.999	1.017	1.017
E02000081	Bexley 017	1.116	1.117	0.999	1.000	1.029	1.029
E02000082	Bexley 018	1.103	1.103	1.012	1.012	1.028	1.027
E02000083	Bexley 019	1.118	1.116	0.993	0.993	1.012	1.011
E02000084	Bexley 020	1.107	1.105	1.016	1.016	1.037	1.036
E02000085	Bexley 021	1.105	1.105	1.002	1.003	1.022	1.022
E02000086	Bexley 022	1.096	1.096	1.014	1.015	1.029	1.029
E02000087	Bexley 023	1.114	1.115	1.035	1.035	1.052	1.051
E02000088	Bexley 024	1.101	1.101	1.024	1.024	1.036	1.036
E02000089	Bexley 025	1.109	1.108	1.025	1.023	1.041	1.041
E02000090	Bexley 026	1.126	1.125	1.003	1.005	1.026	1.026
E02000091	Bexley 027	1.130	1.126	1.013	1.012	1.033	1.032
E02000092	Bexley 028	1.116	1.116	0.981	0.981	1.014	1.013
E02006785	Bexley 029	1.141	1.139	1.005	1.005	1.041	1.041
Authority	Brent	1.146	1.146	0.969	0.970	0.999	1.000
Authority	Bromley	1.113	1.112	0.994	0.994	1.015	1.015
Authority	Croydon	1.116	1.115	0.967	0.969	0.987	0.988
Authority	Ealing	1.088	1.089	0.882	0.885	0.939	0.941
Authority	Enfield	1.115	1.114	0.961	0.962	0.983	0.982
Authority	Greenwich	1.179	1.178	0.999	1.000	1.045	1.046
Authority	Harrow	1.084	1.083	0.953	0.954	0.966	0.966
Authority	Havering	1.137	1.136	1.012	1.012	1.048	1.048
E02000464	Havering 001	1.156	1.158	0.986	0.988	1.037	1.038
E02000465	Havering 002	1.140	1.135	0.980	0.981	1.024	1.025
E02000466	Havering 003	1.142	1.140	1.005	1.005	1.047	1.047
E02000467	Havering 004	1.150	1.150	0.976	0.976	1.015	1.016
E02000468	Havering 005	1.139	1.138	1.021	1.021	1.059	1.060
E02000469	Havering 006	1.146	1.146	0.993	0.994	1.033	1.035
E02000470	Havering 007	1.131	1.130	1.023	1.022	1.057	1.057
E02000471	Havering 008	1.135	1.136	1.066	1.069	1.085	1.086
E02000472	Havering 009	1.134	1.134	1.023	1.024	1.059	1.061
E02000473	Havering 010	1.127	1.129	1.027	1.033	1.057	1.059
E02000474	Havering 011	1.143	1.143	1.006	1.006	1.046	1.047
E02000475	Havering 012	1.134	1.132	1.027	1.026	1.057	1.056

E02000476	Havering 013	1.134	1.132	1.005	1.006	1.026	1.026
E02000477	Havering 014	1.130	1.129	1.041	1.040	1.064	1.064
E02000478	Havering 015	1.129	1.128	1.061	1.062	1.082	1.082
E02000479	Havering 016	1.131	1.131	0.997	0.998	1.027	1.027
E02000480	Havering 017	1.137	1.133	1.005	1.002	1.033	1.032
E02000481	Havering 018	1.149	1.148	1.025	1.023	1.053	1.052
E02000482	Havering 019	1.136	1.135	1.060	1.062	1.072	1.072
E02000483	Havering 020	1.140	1.137	1.017	1.016	1.054	1.053
E02000484	Havering 021	1.124	1.122	1.031	1.030	1.059	1.058
E02000485	Havering 022	1.136	1.135	1.021	1.022	1.051	1.051
E02000486	Havering 023	1.140	1.139	1.022	1.023	1.056	1.056
E02000487	Havering 024	1.132	1.130	1.058	1.059	1.076	1.076
E02000488	Havering 025	1.141	1.140	1.038	1.038	1.066	1.066
E02000489	Havering 026	1.151	1.150	1.008	1.007	1.048	1.048
E02000490	Havering 027	1.150	1.150	1.021	1.023	1.059	1.061
E02000491	Havering 028	1.137	1.138	0.995	0.995	1.041	1.041
E02000492	Havering 029	1.124	1.126	1.020	1.020	1.051	1.050
E02000493	Havering 030	1.140	1.138	0.995	0.996	1.030	1.030
Authority	Hillingdon	1.102	1.103	0.948	0.948	0.999	0.999
Authority	Hounslow	1.103	1.103	0.926	0.927	0.981	0.983
Authority	Kingston upon Thames	1.124	1.123	0.997	0.999	1.023	1.023
Authority	Merton	1.102	1.102	0.951	0.953	0.977	0.979
Authority	Redbridge	1.127	1.126	0.971	0.972	1.004	1.005
Authority	Richmond upon Thames	1.083	1.082	0.932	0.932	0.974	0.975
Authority	Sutton	1.107	1.106	0.989	0.988	1.007	1.006
Authority	Waltham Forest	1.143	1.142	0.958	0.960	0.995	0.996
Region	NE	1.102	1.102	0.860	0.860	0.925	0.925
Region	NW	1.107	1.107	0.924	0.924	0.979	0.979
Region	SCOTLAND	1.088	1.088	0.822	0.822	0.894	0.894
Region	SE	1.092	1.093	0.930	0.929	0.976	0.975
Authority	Slough	1.075	1.075	0.872	0.871	0.947	0.944
Authority	Windsor and Maidenhead	1.065	1.065	0.920	0.916	0.969	0.967
Authority	Aylesbury Vale	1.143	1.142	0.963	0.961	1.025	1.025
Authority	Chiltern	1.041	1.042	0.898	0.894	0.954	0.953
Authority	South Bucks	1.040	1.041	0.907	0.903	0.958	0.957
Authority	Wycombe	1.033	1.033	0.883	0.882	0.940	0.939
Authority	Dartford	1.170	1.169	1.030	1.029	1.096	1.097
E02005028	Dartford 001	1.217	1.225	1.008	1.009	1.080	1.082
E02005029	Dartford 002	1.194	1.196	1.052	1.051	1.107	1.108
E02005030	Dartford 003	1.156	1.154	1.016	1.016	1.073	1.074
E02005031	Dartford 004	1.219	1.222	1.039	1.040	1.103	1.105
E02005032	Dartford 005	1.194	1.193	1.036	1.036	1.092	1.093
E02005033	Dartford 006	1.138	1.136	1.015	1.014	1.061	1.059
E02005034	Dartford 007	1.201	1.202	1.091	1.091	1.139	1.140
E02005035	Dartford 008	1.172	1.171	1.046	1.045	1.111	1.112
E02005036	Dartford 009	1.184	1.185	1.022	1.025	1.092	1.095
E02005037	Dartford 010	1.191	1.188	1.077	1.078	1.152	1.152

E02005038	Dartford 011	1.193	1.193	1.085	1.091	1.125	1.128
E02005039	Dartford 012	1.209	1.210	1.035	1.035	1.095	1.097
E02005040	Dartford 013	1.205	1.203	1.055	1.056	1.115	1.119
Authority	Gravesham	1.098	1.097	0.937	0.935	0.960	0.958
E02005055	Gravesham 001	1.101	1.101	0.897	0.898	0.924	0.923
E02005056	Gravesham 002	1.124	1.122	0.955	0.955	0.950	0.946
E02005057	Gravesham 003	1.086	1.086	0.904	0.901	0.944	0.943
E02005058	Gravesham 004	1.095	1.095	0.897	0.895	0.932	0.931
E02005059	Gravesham 005	1.086	1.086	0.936	0.931	0.969	0.967
E02005060	Gravesham 006	1.112	1.111	0.959	0.957	0.980	0.978
E02005061	Gravesham 007	1.105	1.104	0.916	0.915	0.952	0.951
E02005062	Gravesham 008	1.088	1.089	0.954	0.953	0.980	0.979
E02005063	Gravesham 009	1.101	1.100	0.949	0.947	0.969	0.966
E02005064	Gravesham 010	1.078	1.080	0.976	0.973	1.016	1.013
E02005065	Gravesham 011	1.098	1.099	0.918	0.913	0.966	0.962
E02005066	Gravesham 012	1.077	1.078	0.985	0.980	1.006	1.003
E02005067	Gravesham 013	1.052	1.053	0.974	0.971	0.999	0.997
Authority	Maidstone	1.128	1.128	1.007	1.005	1.039	1.038
Authority	Medway	1.098	1.099	0.967	0.966	1.001	0.999
E02003314	Medway 001	1.086	1.087	0.964	0.961	1.004	1.000
E02003315	Medway 002	1.059	1.060	0.963	0.960	0.999	0.998
E02003316	Medway 003	1.079	1.080	0.968	0.966	1.000	0.998
E02003317	Medway 004	1.088	1.090	0.983	0.980	1.015	1.011
E02003318	Medway 005	1.079	1.080	0.982	0.981	1.010	1.010
E02003319	Medway 006	1.104	1.105	0.955	0.952	0.992	0.990
E02003320	Medway 007	1.092	1.095	0.971	0.972	1.008	1.008
E02003321	Medway 008	1.102	1.103	0.923	0.920	0.977	0.976
E02003322	Medway 009	1.113	1.114	0.910	0.909	0.950	0.949
E02003323	Medway 010	1.092	1.093	0.928	0.930	0.986	0.989
E02003324	Medway 011	1.098	1.100	0.980	0.979	1.009	1.008
E02003325	Medway 012	1.121	1.121	0.948	0.947	0.983	0.982
E02003326	Medway 013	1.103	1.103	0.948	0.949	1.003	1.005
E02003327	Medway 014	1.105	1.107	0.969	0.971	1.009	1.011
E02003328	Medway 015	1.120	1.120	0.981	0.981	1.002	1.001
E02003329	Medway 016	1.120	1.116	0.981	0.965	1.010	0.994
E02003330	Medway 017	1.099	1.100	0.933	0.929	0.978	0.977
E02003331	Medway 018	1.121	1.121	0.954	0.952	0.998	0.996
E02003332	Medway 019	1.093	1.094	0.958	0.955	0.997	0.994
E02003333	Medway 020	1.111	1.111	0.924	0.923	0.955	0.953
E02003334	Medway 021	1.099	1.100	0.918	0.917	0.975	0.977
E02003335	Medway 022	1.106	1.108	0.876	0.875	0.939	0.941
E02003336	Medway 023	1.108	1.107	0.982	0.980	1.021	1.019
E02003337	Medway 024	1.097	1.097	0.964	0.960	1.001	0.997
E02003338	Medway 025	1.105	1.106	0.968	0.966	1.000	0.999
E02003339	Medway 026	1.094	1.094	0.977	0.971	1.010	1.006
E02003340	Medway 027	1.103	1.104	0.954	0.951	0.993	0.992
E02003341	Medway 028	1.066	1.066	0.945	0.941	0.989	0.988

E02003342	Medway 029	1.095	1.096	0.968	0.965	1.006	1.005
E02003343	Medway 030	1.101	1.103	1.010	1.007	1.031	1.026
E02003344	Medway 031	1.086	1.088	0.951	0.952	1.000	1.001
E02003345	Medway 032	1.066	1.068	0.976	0.973	1.008	1.006
E02003346	Medway 033	1.111	1.112	0.998	0.998	1.027	1.022
E02003347	Medway 034	1.053	1.052	0.950	0.947	0.988	0.988
E02003348	Medway 035	1.105	1.107	1.013	1.012	1.028	1.023
E02003349	Medway 036	1.092	1.093	0.982	0.981	1.008	1.007
E02003350	Medway 037	1.104	1.105	0.986	0.983	1.005	1.000
E02003351	Medway 038	1.076	1.077	0.964	0.961	1.001	1.000
Authority	Sevenoaks	1.083	1.085	0.977	0.974	1.008	1.007
Authority	Swale	1.158	1.158	1.006	1.004	1.042	1.042
Authority	Tonbridge and Malling	1.111	1.112	0.997	0.994	1.026	1.025
Authority	Elmbridge	1.062	1.062	0.938	0.934	0.958	0.957
Authority	Epsom and Ewell	1.087	1.087	0.957	0.956	0.977	0.977
Authority	Guildford	1.061	1.061	0.901	0.900	0.963	0.962
Authority	Mole Valley	1.059	1.060	0.963	0.958	0.974	0.971
Authority	Reigate and Banstead	1.103	1.102	0.959	0.957	1.001	0.999
Authority	Runnymede	1.086	1.086	0.935	0.933	0.985	0.985
Authority	Spelthorne	1.060	1.059	0.904	0.904	0.950	0.950
Authority	Tandridge	1.087	1.088	0.968	0.966	0.990	0.990
Authority	Woking	1.049	1.048	0.882	0.879	0.933	0.934
Region	SW	1.122	1.122	0.967	0.967	1.007	1.007
Region	WALES	1.081	1.081	0.857	0.857	0.916	0.916
Region	West Midlands	1.125	1.125	0.971	0.971	1.013	1.013
Region	Yorkshire and Humber	1.104	1.104	0.909	0.909	0.963	0.963

9.5 Appendix E – Network Performance Comparison for Base, 2044 Without LP, and 2044 With LP Across All Peak Periods

AM						
Metrics	Areas	2023	2044		2044	
		Base	Without LP	Diff vs Base	With LP	Diff vs Base
Transient Queues (PCU Hours)	Simulation	2165.8	3389.7	57%	4060.7	87%
	Buffer	5011	7236.2	44%	7254.4	45%
	Total	7176.8	10625.9	48%	11315.1	58%
Over-capacity Queues (PCU Hours)	Simulation	790.3	2530.4	220%	2713	243%
	Buffer	4793	11204.4	134%	11256.9	135%
	Total	5583.2	13734.8	146%	13969.9	150%
Link Cruise Time (PCU Hours)	Simulation	15840.6	20529.1	30%	22061.2	39%
	Buffer	300171.8	340579.1	13%	341583.7	14%
	Total	316012.4	361108.2	14%	363644.8	15%
Total Travel Time (PCU Hours)	Simulation	18796.7	26449.3	41%	28834.9	53%
	Buffer	309975.8	359019.7	16%	360095	16%
	Total	328772.5	385468.9	17%	388929.9	18%
Travel Distance (PCU KM)	Simulation	1137351.5	1436353.3	26%	1514342	33%
	Buffer	24150566	27341218	13%	27427240	14%
	Buffer Centroid Connector	12921318	14521831	12%	14543898	13%
	Total	38209236	43299404	13%	43485480	14%
Average Speed (kph)	Simulation	60.5	54.3	-10%	52.5	-13%
	Buffer	77.9	76.2	-2%	76.2	-2%
	Total	116.2	112.3	-3%	111.8	-4%
Total Trips Loaded (PCUs)		803400.8	904724.3	13%	915723.7	14%

IP						
Metrics	Areas	2023	2044		2044	
		Base	Without LP	Diff vs Base	With LP	Diff vs Base
Transient Queues (PCU Hours)	Simulation	1880.5	2622.1	39%	2884.5	53%
	Buffer	4083	5776.8	41%	5798.3	42%
	Total	5963.4	8398.9	41%	8682.8	46%
Over-capacity Queues (PCU Hours)	Simulation	481.8	1471.2	205%	1590.2	230%
	Buffer	2790.9	5932	113%	6006.7	115%
	Total	3272.7	7403.2	126%	7596.9	132%
Link Cruise Time (PCU Hours)	Simulation	14199.4	17855.5	26%	18897.5	33%
	Buffer	253958.3	288557.7	14%	288635.7	14%
	Total	268157.7	306413.2	14%	307533.2	15%
Total Travel Time (PCU Hours)	Simulation	16561.6	21948.8	33%	23372.2	41%
	Buffer	260832.3	300266.5	15%	300440.8	15%
	Total	277393.9	322215.3	16%	323812.9	17%
Travel Distance (PCU KM)	Simulation	1031475.6	1283709.6	24%	1338408	30%
	Buffer	20580494	23479644	14%	23479696	14%
	Buffer Centroid Connector	10594610	12015620	13%	12021336	13%
	Total	32206580	36778976	14%	36839440	14%
Average Speed (kph)	Simulation	62.3	58.5	-6%	57.3	-8%
	Buffer	78.9	78.2	-1%	78.2	-1%
	Total	116.1	114.1	-2%	113.8	-2%
Total Trips Loaded (PCUs)		675415.8	767223.7	14%	773385.3	15%

PM						
Metrics	Areas	2023	2044		2044	
		Base	Without LP	Diff vs Base	With LP	Diff vs Base
Transient Queues (PCU Hours)	Simulation	2363.3	3648.3	54%	4461.8	89%
	Buffer	5392.6	7448.1	38%	7594.7	41%
	Total	7756	11096.4	43%	12056.4	55%
Over-capacity Queues (PCU Hours)	Simulation	911.1	2261.5	148%	3043.6	234%
	Buffer	5305.2	11337.3	114%	11834.5	123%
	Total	6216.4	13598.7	119%	14878.1	139%
Link Cruise Time (PCU Hours)	Simulation	16507.2	21037.1	27%	22783.8	38%
	Buffer	302377	342095.5	13%	342385.9	13%
	Total	318884.2	363132.6	14%	365169.8	15%
Total Travel Time (PCU Hours)	Simulation	19781.6	26946.9	36%	30289.3	53%
	Buffer	313074.9	360880.9	15%	361815	16%
	Total	332856.5	387827.8	17%	392104.3	18%
Travel Distance (PCU KM)	Simulation	1168474.1	1466935	26%	1552422	33%
	Buffer	24392072	27711568	14%	27727544	14%
	Buffer Centroid Connector	13163388	14789621	12%	14794217	12%
	Total	38723932	43968124	14%	44074184	14%
Average Speed (kph)	Simulation	59.1	54.4	-8%	51.3	-13%
	Buffer	77.9	76.8	-1%	76.6	-2%
	Total	116.3	113.4	-2%	112.4	-3%
Total Trips Loaded (PCUs)		814009.5	915723.7	12%	924963.4	14%

SAT						
Metrics	Areas	2023	2044		2044	
		Base	Without LP	Diff vs Base	With LP	Diff vs Base
Transient Queues (PCU Hours)	Simulation	2138.3	3008	41%	3323.8	55%
	Buffer	4426.2	6386.1	44%	6436.9	45%
	Total	6564.5	9394.2	43%	9760.7	49%
Over-capacity Queues (PCU Hours)	Simulation	710.3	2589.3	265%	2781	292%
	Buffer	3602.5	7428.7	106%	7604.7	111%
	Total	4312.9	10018	132%	10385.7	141%
Link Cruise Time (PCU Hours)	Simulation	15859	20307.9	28%	21402.5	35%
	Buffer	248071.3	282573.9	14%	282985.8	14%
	Total	263930.3	302881.8	15%	304388.3	15%
Total Travel Time (PCU Hours)	Simulation	18707.7	25905.2	38%	27507.3	47%
	Buffer	256100	296388.8	16%	297027.4	16%
	Total	274807.7	322294	17%	324534.7	18%
Travel Distance (PCU KM)	Simulation	1069937.3	1353172.1	26%	1412214	32%
	Buffer	19964572	22828844	14%	22863904	15%
	Buffer Centroid Connector	10847769	12239633	13%	12249510	13%
	Total	31882280	36421652	14%	36525628	15%
Average Speed (kph)	Simulation	57.2	52.2	-9%	51.3	-10%
	Buffer	78	77	-1%	77	-1%
	Total	116	113	-3%	112.5	-3%
Total Trips Loaded (PCUs)		700625.1	791670.5	13%	797457.6	14%

9.6 Appendix F – Car Trip Ends by Zone for Forecast Year 2044 (With and Without LP Scenarios)

FY 2044 Without LP

Car Trip Ends - 2044 Without LP								
Zone No.	AM Peak Period		Inter-peak Period		PM Peak Period		SAT Peak Period	
	Origin	Destination	Origin	Destination	Origin	Destination	Origin	Destination
101	330	278	356	234	495	268	289	452
102	53	82	72	84	82	50	51	77
103	12	82	50	31	52	33	83	30
104	95	126	122	96	182	92	98	134
105	66	249	187	221	243	208	470	316
106	237	552	819	631	822	619	1482	1260
107	83	77	77	124	76	96	72	84
108	258	112	150	161	132	177	123	128
109	70	57	60	71	66	85	65	76
110	152	114	101	95	127	122	126	152
111	73	126	102	81	128	91	135	112
112	179	299	250	263	297	204	293	293
113	221	160	186	216	226	244	231	279
114	71	109	87	80	101	89	127	128
115	73	112	89	81	104	91	130	131
116	237	266	212	171	373	216	241	218
117	289	361	266	227	471	285	304	282
118	164	124	106	71	196	105	120	116
119	302	200	121	125	172	159	104	75
120	259	231	117	121	166	171	126	85
121	207	125	112	98	171	172	149	135
122	175	169	163	172	143	188	153	154
123	228	132	111	98	207	161	147	127
124	105	145	129	131	122	152	134	127
125	95	83	82	82	91	101	82	82
126	90	139	128	103	112	123	124	107
127	110	222	204	160	175	172	185	163
128	137	185	128	124	156	122	175	176
129	97	127	81	89	93	87	111	109
130	97	118	73	78	85	83	103	94
131	74	97	59	66	73	61	84	80
132	62	90	54	55	61	50	77	67
133	150	155	142	125	157	142	180	162
134	85	70	75	70	73	108	78	81
135	115	128	99	100	119	137	142	152
136	194	189	158	131	159	166	204	219
137	138	143	102	95	116	129	140	165
138	229	229	167	165	250	189	212	263
139	171	184	144	134	181	183	214	216
140	105	75	54	62	63	79	65	73
141	125	83	62	67	74	87	72	82

142	123	82	60	66	73	86	70	80
143	116	82	61	72	74	87	79	89
144	157	99	138	85	78	100	82	89
145	122	113	102	92	106	112	124	139
146	176	135	91	97	102	124	99	107
147	118	100	62	104	69	109	51	66
148	350	188	188	152	202	227	218	198
149	161	109	84	114	94	149	112	74
150	127	187	176	100	195	109	185	133
151	329	181	172	233	165	407	218	238
152	191	115	103	90	157	158	136	123
153	191	113	112	146	159	187	104	133
154	151	199	122	127	151	144	138	160
155	334	320	203	215	214	319	245	248
156	335	432	192	309	245	462	273	334
157	344	115	198	91	246	139	233	107
158	51	104	66	61	80	67	88	72
159	110	100	75	100	86	124	119	132
160	224	167	217	187	144	226	201	237
161	181	121	126	132	154	175	163	178
162	156	113	117	112	152	137	154	150
163	108	103	83	87	112	100	103	127
164	197	88	120	69	161	99	108	101
165	207	247	167	180	269	212	224	267
166	485	479	253	275	430	414	284	350
167	174	174	139	133	186	153	175	157
168	287	350	265	237	344	274	333	301
169	380	248	233	200	286	265	240	267
170	397	380	232	234	253	444	198	226
171	172	160	115	139	179	128	131	197
172	177	131	80	80	112	112	81	76
173	120	180	98	105	121	130	134	114
174	138	163	110	108	157	118	121	118
175	202	201	129	132	149	131	145	153
176	175	83	110	91	135	95	119	104
177	335	631	240	308	219	448	266	237
178	194	91	122	100	149	104	133	115
179	265	310	194	157	203	212	244	235
180	248	461	180	272	227	335	240	301
181	228	368	148	218	184	295	185	197
182	161	154	122	96	113	113	75	85
183	193	171	155	125	166	166	168	180
184	102	107	82	78	85	105	93	117
185	252	270	218	191	206	268	228	273
186	91	82	71	60	75	79	82	88
187	129	116	101	85	106	112	116	123
188	168	120	94	96	97	122	99	115

189	436	390	290	257	306	318	195	223
190	274	249	246	171	192	228	232	188
191	270	254	223	190	249	255	231	219
192	175	226	194	134	205	103	166	143
193	312	416	275	379	249	402	313	365
194	199	175	180	210	204	205	226	227
195	84	71	62	63	59	133	66	103
196	320	182	64	87	153	177	98	130
197	105	142	56	73	68	159	85	118
198	128	123	310	285	344	242	213	247
199	154	145	96	116	104	191	129	157
200	229	172	187	177	185	219	262	238
201	420	222	160	91	247	116	180	135
202	320	252	223	280	237	360	273	250
203	314	242	241	234	240	272	324	290
204	341	474	153	202	95	353	168	211
205	209	101	97	77	121	110	165	87
206	211	124	222	84	242	119	97	62
207	223	143	114	110	112	116	158	132
208	172	164	107	113	112	164	130	133
209	112	91	61	70	78	110	89	101
210	141	147	99	100	102	151	119	116
211	123	143	106	96	87	130	141	132
212	153	108	102	92	82	121	112	118
213	80	69	60	57	56	115	63	94
214	353	494	613	514	618	495	630	619
215	190	148	136	133	160	166	108	103
216	157	114	123	106	146	162	157	135
217	397	224	254	179	396	364	185	166
218	142	121	116	115	151	161	127	144
219	151	117	125	107	150	170	160	139
220	196	141	153	131	179	200	194	169
221	203	228	170	203	186	261	213	233
222	117	707	335	481	427	387	1007	1183
223	874	432	476	924	491	888	477	543
224	230	170	128	118	192	158	120	117
225	246	438	437	354	589	439	401	669
226	268	233	292	296	286	281	398	382
227	340	296	430	443	349	393	548	566
228	373	297	393	410	380	410	532	525
229	339	317	391	371	394	366	534	469
230	254	251	297	292	286	287	376	369
231	292	241	312	334	283	331	393	427
232	314	254	329	334	285	339	419	426
233	517	463	589	544	597	552	839	730
234	398	278	416	448	337	444	528	571
235	318	291	370	340	375	342	523	442

236	380	309	404	407	347	410	512	518
237	292	214	305	324	247	322	388	413
238	362	283	379	370	341	378	515	479
239	596	768	921	860	860	724	1155	1097
240	426	422	552	549	462	486	698	696
241	313	401	480	450	451	384	609	573
242	341	262	344	358	281	358	435	454
243	636	774	929	848	915	768	1209	1088
244	455	390	532	555	464	537	676	708
245	312	250	331	342	272	338	420	435
246	297	229	297	311	247	314	377	396
247	386	318	414	419	375	442	527	534
248	314	250	330	341	272	340	421	436
249	221	235	278	266	247	244	351	338
250	535	558	670	642	586	588	847	823
251	483	514	616	594	584	567	781	759
252	333	390	428	397	428	393	537	499
253	259	186	269	285	216	286	344	366
254	358	216	269	284	247	380	462	380
255	470	395	407	446	418	500	889	924
256	415	333	384	460	353	533	496	539
257	459	317	391	476	368	553	515	775
258	371	292	320	378	234	442	407	418
259	328	297	336	356	296	395	468	456
260	616	537	674	503	751	521	988	786
261	354	246	311	359	252	384	421	440
262	436	445	381	468	331	535	523	533
263	530	579	501	715	436	800	764	708
264	366	266	318	391	260	483	456	470
265	431	419	435	560	393	675	616	674
266	730	1385	1335	1362	1341	1071	1776	1675
267	443	284	371	467	312	517	531	565
268	327	266	275	334	226	387	372	409
269	426	516	521	572	513	585	722	677
270	696	952	912	914	1031	899	1187	1078
271	314	399	338	420	335	394	563	521
272	493	519	574	602	568	548	789	1034
273	418	290	368	380	327	423	474	510
274	425	450	461	467	441	448	922	617
275	359	272	340	354	296	332	448	457
276	368	257	346	360	301	352	460	471
277	364	222	282	277	277	288	343	386
278	372	278	312	299	263	306	385	417
279	338	719	490	386	866	314	605	621
280	481	574	455	438	654	502	588	600
281	380	277	302	295	350	300	478	493
282	804	650	729	797	856	977	982	967

283	1032	870	920	962	1123	1071	1572	1638
284	896	582	671	759	661	738	998	1144
285	1088	1489	1462	1286	1350	1212	1744	1647
286	1263	1117	913	876	935	1050	1303	1054
287	1006	1017	1093	1072	1137	1134	1684	1309
288	639	457	414	478	470	662	832	686
289	902	908	760	709	704	671	1005	808
290	762	578	709	709	646	825	1003	1074
291	1005	1338	1156	1263	1268	1273	1816	1653
292	743	799	787	774	864	895	1265	1557
293	731	628	546	573	712	741	784	845
294	931	583	607	684	810	876	1126	834
295	700	644	552	619	667	799	751	935
296	723	1588	1364	1285	1569	1164	1884	2648
297	838	673	666	713	646	745	1007	1181
298	794	679	702	708	629	732	860	845
299	687	680	641	671	806	853	807	846
300	492	499	463	483	586	611	580	608
301	786	793	740	774	934	977	930	976
302	689	1160	841	761	1284	892	1023	926
303	442	295	343	388	383	554	431	490
304	649	680	669	674	813	834	836	843
305	1123	1615	1360	1245	1816	1411	1706	1577
306	432	324	334	357	402	526	420	450
307	489	361	408	439	467	585	509	548
308	534	341	401	459	452	640	504	576
309	828	935	908	929	1091	1083	1140	1169
310	608	605	637	627	744	749	799	786
311	693	667	698	732	826	903	879	922
312	585	675	611	659	743	814	769	830
313	1091	1780	1542	1369	2029	1457	1918	1762
314	872	1226	1172	1030	1565	1150	1465	1281
315	452	351	372	418	409	582	467	524
316	753	541	612	653	678	872	767	820
317	565	459	485	503	567	649	606	629
318	475	365	413	442	466	577	517	552
319	474	286	361	393	386	529	454	494
320	473	273	326	374	364	556	408	468
321	478	362	406	436	477	578	509	548
322	493	470	438	471	549	640	546	590
323	609	550	607	620	717	753	759	777
324	594	671	592	564	826	716	728	695
325	729	615	637	617	719	784	805	778
326	466	219	256	276	334	452	318	345
327	620	486	513	515	570	666	644	646
328	851	1231	1149	1077	1458	1112	1427	1340
329	584	445	480	534	547	724	606	675

330	478	274	323	370	368	543	405	464
331	628	612	668	655	755	758	845	830
332	520	320	356	397	392	581	445	496
333	848	814	962	988	1007	1068	1214	1249
334	635	424	507	550	553	732	638	693
335	545	347	444	464	491	619	558	584
336	594	431	439	473	549	707	542	586
337	625	689	506	466	448	496	550	482
338	702	557	455	474	570	632	732	790
339	513	654	544	518	696	563	751	668
340	710	868	808	786	880	975	1227	1078
341	604	481	418	449	448	516	693	638
342	667	594	503	520	602	630	627	642
343	694	586	441	447	603	673	534	489
344	924	746	655	724	727	832	1018	942
345	812	875	1010	995	1024	999	1617	1714
346	798	746	593	633	961	926	930	830
347	1014	973	825	806	1264	966	1097	1007
348	917	1456	1091	944	1678	1115	1692	1442
349	530	320	295	332	345	521	890	407
350	954	1262	723	692	1242	868	918	800
351	847	1971	1419	1260	1843	1542	1936	2270
352	641	475	390	455	529	668	530	583
353	574	626	489	530	692	753	638	993
354	585	574	507	468	543	611	959	716
355	519	255	303	374	353	643	421	395
356	1050	1660	1394	1311	1496	1071	1344	1329
357	754	539	478	541	582	821	640	1116
358	855	784	765	778	717	1023	1351	1150
359	969	674	882	944	906	954	960	1069
360	621	772	689	630	665	513	736	764
361	495	381	379	384	564	558	435	543
362	416	341	398	396	437	464	687	586
363	982	1357	1023	848	1087	902	1237	1132
364	679	587	553	575	713	598	817	877
365	641	949	823	721	1139	735	1229	993
366	503	369	291	385	397	487	448	513
367	760	892	772	722	833	835	1152	1069
368	676	705	509	540	547	660	2127	693
369	758	736	507	544	549	561	547	2184
370	344	272	283	347	282	429	410	1346
371	632	967	860	772	867	736	1880	1004
372	656	473	462	507	568	646	570	723
373	457	291	266	347	305	460	375	481
374	321	194	225	288	213	325	382	346
375	493	562	653	668	670	737	1092	898
376	584	756	610	613	684	543	792	789

377	638	385	463	521	459	553	646	881
378	438	346	381	442	367	516	598	640
379	706	420	607	600	539	655	1030	823
380	1156	1007	943	984	1010	1195	1059	1140
381	409	431	410	431	501	496	460	587
382	664	519	630	646	562	757	838	973
383	918	955	950	941	1078	1068	1393	1360
384	748	842	752	715	968	883	948	874
385	759	1023	1067	986	1053	944	1478	1344
386	676	671	583	646	775	694	882	978
387	680	482	515	558	615	688	827	930
388	654	589	500	537	766	694	784	717
389	882	666	597	723	699	986	793	952
390	1087	1456	1129	1191	1536	1281	1485	1564
391	444	332	299	362	351	497	392	469
392	727	567	530	609	635	811	687	787
393	1294	2435	2094	2099	2602	1946	2744	2748
394	570	376	369	458	426	594	470	579
395	931	1103	910	930	1204	1120	1173	1195
396	572	520	442	470	523	569	572	605
397	652	502	459	516	550	667	590	656
398	546	467	386	413	472	549	502	532
399	639	508	457	541	556	747	591	692
400	587	661	561	595	693	694	729	764
401	597	546	570	521	665	610	733	679
402	1112	1545	1504	1236	1743	1159	1952	1622
403	830	748	706	667	841	796	900	853
404	515	405	442	431	451	493	559	547
405	655	520	567	552	580	630	722	706
406	706	725	741	637	848	706	938	810
407	490	381	408	426	447	505	518	544
408	461	363	385	403	426	480	491	516
409	495	401	457	445	478	508	578	567
410	576	468	422	493	496	615	534	626
411	541	421	449	470	494	559	573	602
412	665	519	539	529	605	673	678	669
413	441	275	291	310	335	444	363	389
414	13713	15695	12116	12248	15874	16021	15267	15454
415	2633	7447	3287	3477	7173	3646	3945	4078
416	6863	5429	6144	6162	6317	7529	7069	7026
417	15351	13361	13492	13259	13715	16487	16885	16466
418	20103	21054	19080	19162	22192	21595	17317	17323
419	14785	15078	14359	13506	18130	15850	22862	21381
420	8561	8357	8434	8451	8265	8541	10721	10571
421	6083	5918	5801	5759	6202	6463	6356	6914
422	10431	9535	9722	9854	9840	10629	12128	12889
423	13433	13072	10310	10155	15462	12774	12823	12581

424	15575	15814	14204	13819	16408	16061	17532	18735
425	25160	21510	19410	20338	21602	27638	32330	31827
426	19875	18052	15898	16212	18785	21688	20370	20668
427	8646	8694	6863	6708	8577	8422	8752	8571
428	7472	5968	5161	5219	7140	6496	6481	6559
429	17073	17429	14544	14002	18049	17301	18356	17742
430	11485	13489	10777	10546	14280	13166	4800	4532
431	7431	5909	5299	5517	6060	6931	6259	6009
432	7432	6090	6343	6670	6867	7967	5669	5962
433	16277	16738	13535	14050	16475	17689	18068	18541
434	14162	15315	10918	10262	15937	12565	9071	8596
435	12464	11862	11059	11459	11985	12870	12778	12978
436	16114	16891	16213	15814	18066	17237	18518	18995
437	17165	17157	15377	15439	17176	17788	18494	18301
438	11662	11826	10898	10656	12393	12346	13204	12633
439	6227	6712	5306	5460	6666	7033	5980	6043
440	6403	6057	5960	6152	6103	6564	7244	7528
441	10909	9821	9881	10207	9533	10445	11571	11881
442	10349	10353	9989	10010	10431	10680	11344	11580
443	7601	7794	7399	7737	8028	7830	5836	6196
444	13713	13191	11354	10898	14826	13385	14192	14152
445	8547	9663	6440	7370	8917	8531	7974	9181
446	11572	11682	10246	10497	12875	12178	12346	13034
447	6576	7104	5203	5596	6691	7339	6476	7028
448	7131	7870	7161	7159	8787	7916	8976	8970
449	15417	15265	13287	13239	17040	17222	23359	23297
450	12128	12298	8501	8789	12809	11718	13601	14583
451	12819	11522	11320	11296	12422	13490	19890	19815
452	13484	13627	9567	10310	14231	14847	16095	17261
453	11092	9813	9996	10221	10274	11423	11159	10849
454	12644	10789	10682	10858	11090	12348	11259	10906
455	6802	6996	6647	6758	6325	6424	8381	8397
456	12858	13165	13170	13082	12525	12689	14732	14806
457	8539	8763	10478	10355	8485	8249	12124	12583
458	9018	12495	10200	10076	13717	11935	11191	12191
459	15622	13964	14896	14826	15021	15385	16548	16232
460	10263	11752	8977	9193	11748	11150	11837	12688
461	10159	8814	8792	8910	9146	9875	10777	10150
462	9452	11031	9241	9049	10549	10126	10605	10670
463	13462	13478	13243	12948	12975	12701	16870	16733
464	8530	8404	8426	8672	8129	8653	10503	10208
465	10986	11470	10250	10359	12039	11211	12869	13079
466	5980	6493	5401	5677	6364	6231	6757	7110
467	14658	14354	12778	13226	15432	15574	16237	16773
468	7570	9010	6964	6454	9950	7198	8619	8082
469	13961	13428	11043	11645	14753	14747	13833	14594
470	9342	9310	8080	7551	10654	7907	10212	9561

471	8366	8876	7436	7632	8403	9308	9371	9615
472	7613	7359	5655	6121	7641	7945	7094	7694
473	8657	8351	7661	7557	9098	9518	9661	9590
474	13695	13650	11329	10726	14202	12875	14083	13468
475	13028	14434	10249	9961	14221	13310	12841	12325
476	13345	12867	11273	11164	14325	13941	11656	10003
477	7869	8670	8206	8145	9398	9147	10174	11243
478	9207	8010	7356	6877	8433	9118	9540	8972
479	11875	13154	14523	14023	14266	13653	20315	19047
480	5990	9165	5566	5561	9770	7235	6880	6769
481	13352	11724	13346	12940	12725	14000	16675	16337
482	10171	9154	9104	8658	10241	10849	11543	10889
483	12381	11226	12782	12639	12099	13558	9312	9576
484	4022	3838	3445	3292	4110	4126	4550	3271
485	3611	4844	3888	3697	5440	4082	4774	4517
486	4908	4781	4954	4632	5856	5865	4754	4677
487	10166	9119	9257	9224	9100	10863	12011	12046
488	17593	16094	17430	16108	19421	17093	21607	20241
489	9585	9254	9393	9213	10123	11444	11597	11393
490	5065	6155	4248	4270	6635	5797	5288	5253
491	2716	4471	3948	3974	5065	3662	4911	4913
492	7453	7927	8288	8083	8493	8676	10368	10126
493	6915	7165	5180	5454	7650	7329	6377	6666
494	5874	5383	6183	6124	6030	6329	7839	7838
495	5564	5632	5142	4819	6177	6185	6280	5917
496	7227	6872	7309	6950	8610	8784	8897	8343
497	11047	9346	10087	9915	10689	12055	10474	9220
498	6479	6895	6977	6723	7371	7306	8746	8453
499	7595	8271	5505	5959	7950	7199	6853	7347
500	7856	7619	8476	8218	8109	8935	10564	10282
501	4816	7719	5047	4449	8262	5231	5526	4470
502	10245	8700	8328	8311	9255	10335	6837	8025
503	5947	6222	5591	5538	6990	6384	6966	6874
504	19179	22433	14058	14398	24425	21371	17264	17893
507	8	4	6	1	18	3	3	2
510	5	32	582	796	498	722	25	186
520	161	733	254	612	560	216	125	103
521	73	97	91	54	101	51	46	36
522	39	219	113	63	341	98	1307	1128
600	2026	914	1475	748	1866	1054	1765	939
601	274	315	381	327	546	412	465	402
602	839	683	700	571	759	791	820	679
603	961	717	557	672	713	1093	680	820
604	517	317	425	305	694	528	515	371
605	8	4	6	2	11	4	7	2
606	892	1510	692	994	1041	1715	877	1253
607	679	811	390	650	716	1363	462	790

608	1172	1318	1033	1040	1502	1359	1273	1281
609	299	290	175	214	299	374	215	260
610	958	560	588	613	688	1078	712	742
611	268	227	190	162	371	212	234	198
612	1283	1089	978	992	1314	1482	1218	1238
613	230	110	175	86	241	149	217	104
614	173	79	93	66	146	121	118	83
615	2494	2190	1902	1912	1985	2567	2393	2405
616	1189	1176	827	933	1072	1652	1056	1179
617	2506	3017	2040	1879	3251	2509	2483	2286
618	529	316	232	309	345	598	289	383
619	544	289	313	381	373	662	387	470
620	4868	5431	4278	4391	5781	5827	5319	5452
621	952	1372	1081	951	1364	1186	1345	1183
622	416	191	185	189	265	350	227	235
623	292	252	191	234	253	432	234	287
624	1653	1680	1145	1403	1645	2287	1427	1746
625	906	657	639	587	889	921	796	735
626	3966	4016	3219	3064	4438	4138	3976	3797
627	309	0	154	0	269	0	188	0
628	641	503	339	577	431	1023	419	715
629	626	477	457	404	754	599	554	489
630	142	162	170	118	274	153	209	146
631	328	200	126	188	100	326	155	230
632	1782	1904	1490	1375	2327	1927	1848	1721
633	2038	1701	1629	1336	2449	1842	2005	1647
634	441	894	414	433	1030	624	508	534
635	1370	833	862	747	1482	1229	1040	899
636	199	0	113	0	265	0	136	0
637	1231	976	1072	1116	1827	1890	1300	1363
638	488	555	306	380	580	482	370	464
639	545	680	221	436	342	894	273	532
640	788	543	393	357	568	598	480	436
641	926	595	469	575	682	1021	572	697
642	224	266	197	178	361	188	240	219
643	1445	1501	1101	1171	1551	1751	1355	1436
644	893	497	404	469	502	772	491	566
645	998	1032	691	684	1223	1102	851	837
646	3480	4667	3170	3514	5131	4882	3825	4407
647	2587	2670	1862	2115	2496	3012	2358	2646
648	4396	4036	3952	3788	5205	5217	4870	4615
649	4189	3912	2919	3666	3940	6360	3504	4382
650	3156	3937	2401	2724	3673	4282	2877	3306
651	2692	2553	2282	2471	2992	3183	2714	2972
652	4560	3359	3380	3101	4617	4367	4275	3895
60844	0	0	0	0	0	0	0	0
60956	0	0	0	0	0	0	0	0

60856	0	0	0	0	0	0	0	0
61171	0	0	0	0	0	0	0	0
60853	0	0	0	0	0	0	0	0
60972/60883	0	0	0	0	0	0	0	0
60888	0	0	0	0	0	0	0	0
60913	0	0	0	0	0	0	0	0
60956	0	0	0	0	0	0	0	0
60893	0	0	0	0	0	0	0	0
60940	0	0	0	0	0	0	0	0
60847	170	47	79	74	71	184	104	66
61209	519	123	198	201	264	516	255	270

FY Year 2044 With LP

Car Trip Ends - 2044 With LP								
Zone No.	AM Peak Period		Inter-peak Period		PM Peak Period		SAT Peak Period	
	Origin	Destination	Origin	Destination	Origin	Destination	Origin	Destination
101	330	278	356	234	495	268	289	452
102	59	105	89	161	83	50	51	79
103	22	122	78	158	53	33	83	34
104	114	200	175	334	185	92	98	141
105	66	249	187	221	243	208	470	316
106	271	685	914	1059	829	619	1482	1271
107	86	89	85	162	76	96	72	85
108	277	185	202	395	135	177	123	134
109	70	57	60	71	66	85	65	76
110	152	114	101	95	127	122	126	152
111	73	126	102	81	128	91	135	112
112	179	299	250	263	297	204	293	293
113	221	160	186	216	226	244	231	279
114	71	109	87	80	101	89	127	128
115	73	112	89	81	104	91	130	131
116	237	266	212	171	373	216	241	218
117	289	361	266	227	471	285	304	282
118	164	124	106	71	196	105	120	116
119	302	200	121	125	172	159	104	75
120	259	231	117	121	166	171	126	85
121	207	125	112	98	171	172	149	135
122	175	169	163	172	143	188	153	154
123	228	132	111	98	207	161	147	127
124	105	145	129	131	122	152	134	127
125	95	83	82	82	91	101	82	82
126	90	139	128	103	112	123	124	107
127	110	222	204	160	175	172	185	163
128	137	185	128	124	156	122	175	176
129	97	127	81	89	93	87	111	109
130	97	118	73	78	85	83	103	94
131	74	97	59	66	73	61	84	80
132	62	90	54	55	61	50	77	67

133	150	155	142	125	157	142	180	162
134	98	95	108	150	75	109	79	83
135	476	226	288	255	264	516	355	287
136	209	191	192	136	159	168	206	219
137	221	177	281	159	118	140	149	166
138	232	244	171	189	251	189	212	263
139	171	184	144	134	181	183	214	216
140	105	75	54	62	63	79	65	73
141	127	89	66	88	74	87	72	82
142	130	109	80	157	73	86	70	81
143	116	82	61	72	74	87	79	89
144	176	101	186	92	78	103	84	89
145	818	311	465	397	394	855	526	400
146	183	136	108	100	102	125	100	107
147	118	100	62	104	69	109	51	66
148	367	217	237	275	202	229	219	199
149	161	109	84	114	94	149	112	74
150	127	187	176	100	195	109	185	133
151	725	290	369	404	326	830	456	390
152	191	115	103	90	157	158	136	123
153	191	113	112	146	159	187	104	133
154	174	208	173	156	152	146	140	161
155	781	497	515	495	366	721	472	392
156	335	432	192	309	245	462	273	334
157	377	120	270	102	247	144	237	107
158	51	104	66	61	80	67	88	72
159	110	100	75	100	86	124	119	132
160	283	218	330	299	145	231	206	239
161	461	194	664	346	159	205	186	183
162	382	163	288	203	227	337	268	221
163	119	105	112	91	113	103	104	127
164	197	89	120	71	161	99	108	101
165	208	247	170	181	269	212	224	267
166	488	480	262	276	430	415	285	350
167	174	174	139	133	186	153	175	157
168	288	350	267	237	344	275	333	301
169	380	248	233	200	286	265	240	267
170	397	380	232	234	253	444	198	226
171	174	160	121	140	179	128	131	198
172	177	131	80	80	112	112	81	76
173	120	180	98	105	121	130	134	114
174	145	164	126	110	157	119	122	118
175	264	210	264	151	150	140	151	153
176	175	83	110	91	135	95	119	104
177	335	631	240	308	219	448	266	237
178	210	93	157	105	149	107	135	115
179	276	311	216	160	204	213	246	235

180	248	461	180	272	227	335	240	301
181	228	368	148	218	184	295	185	197
182	161	154	122	96	113	113	75	85
183	1001	415	493	567	570	953	557	593
184	102	107	82	78	85	105	93	117
185	259	288	234	234	207	268	229	274
186	91	82	71	60	75	79	82	88
187	129	116	101	85	106	112	116	123
188	168	120	94	96	97	122	99	115
189	688	502	738	470	312	337	210	230
190	2356	913	1255	1235	1046	2449	1482	994
191	588	357	785	388	255	280	250	224
192	200	229	238	141	206	105	167	143
193	312	416	275	379	249	402	313	365
194	199	175	180	210	204	205	226	227
195	84	71	62	63	59	133	66	103
196	320	182	64	87	153	177	98	130
197	105	142	56	73	68	159	85	118
198	128	123	310	285	344	242	213	247
199	156	145	99	116	105	191	129	157
200	229	172	187	177	185	219	262	238
201	576	259	219	151	327	271	257	216
202	320	252	223	280	237	360	273	250
203	411	290	438	345	241	283	332	292
204	423	485	333	228	97	367	177	212
205	239	105	163	87	122	115	169	87
206	211	124	222	84	242	119	97	62
207	223	143	114	110	112	116	158	132
208	172	164	107	113	112	164	130	133
209	112	91	61	70	78	110	89	101
210	141	147	99	100	102	151	119	116
211	123	143	106	96	87	130	141	132
212	153	108	102	92	82	121	112	118
213	80	69	60	57	56	115	63	94
214	378	502	676	531	619	501	634	619
215	220	221	194	247	161	169	111	105
216	157	114	123	106	146	162	157	135
217	399	224	260	180	396	365	185	166
218	215	383	225	516	155	165	130	153
219	151	117	125	107	150	170	160	139
220	196	141	153	131	179	200	194	169
221	203	228	170	203	186	261	213	233
222	118	711	338	494	427	387	1007	1184
223	874	432	476	924	491	888	477	543
224	230	170	128	118	192	158	120	117
225	250	454	448	406	589	439	401	670
226	268	233	292	296	286	281	398	382

227	340	296	430	443	349	393	548	566
228	373	297	393	410	380	410	532	525
229	339	317	391	371	394	366	534	469
230	254	251	297	292	286	287	376	369
231	292	241	312	334	283	331	393	427
232	314	254	329	334	285	339	419	426
233	517	463	589	544	597	552	839	730
234	398	278	416	448	337	444	528	571
235	318	291	370	340	375	342	523	442
236	380	309	404	407	347	410	512	518
237	292	214	305	324	247	322	388	413
238	362	283	379	370	341	378	515	479
239	596	768	921	860	860	724	1155	1097
240	426	422	552	549	462	486	698	696
241	313	401	480	450	451	384	609	573
242	341	262	344	358	281	358	435	454
243	636	774	929	848	915	768	1209	1088
244	455	390	532	555	464	537	676	708
245	312	250	331	342	272	338	420	435
246	297	229	297	311	247	314	377	396
247	386	318	414	419	375	442	527	534
248	314	250	330	341	272	340	421	436
249	221	235	278	266	247	244	351	338
250	535	558	670	642	586	588	847	823
251	483	514	616	594	584	567	781	759
252	333	390	428	397	428	393	537	499
253	259	186	269	285	216	286	344	366
254	358	216	269	284	247	380	462	380
255	470	395	407	446	418	500	889	924
256	415	333	384	460	353	533	496	539
257	459	317	391	476	368	553	515	775
258	371	292	320	378	234	442	407	418
259	328	297	336	356	296	395	468	456
260	616	537	674	503	751	521	988	786
261	354	246	311	359	252	384	421	440
262	436	445	381	468	331	535	523	533
263	530	579	501	715	436	800	764	708
264	366	266	318	391	260	483	456	470
265	431	419	435	560	393	675	616	674
266	730	1385	1335	1362	1341	1071	1776	1675
267	443	284	371	467	312	517	531	565
268	327	266	275	334	226	387	372	409
269	426	516	521	572	513	585	722	677
270	696	952	912	914	1031	899	1187	1078
271	314	399	338	420	335	394	563	521
272	493	519	574	602	568	548	789	1034
273	418	290	368	380	327	423	474	510

274	425	450	461	467	441	448	922	617
275	359	272	340	354	296	332	448	457
276	368	257	346	360	301	352	460	471
277	364	222	282	277	277	288	343	386
278	372	278	312	299	263	306	385	417
279	338	719	490	386	866	314	605	621
280	481	574	455	438	654	502	588	600
281	380	277	302	295	350	300	478	493
282	804	650	729	797	856	977	982	967
283	1032	870	920	962	1123	1071	1572	1638
284	896	582	671	759	661	738	998	1144
285	1088	1489	1462	1286	1350	1212	1744	1647
286	1263	1117	913	876	935	1050	1303	1054
287	1006	1017	1093	1072	1137	1134	1684	1309
288	639	457	414	478	470	662	832	686
289	902	908	760	709	704	671	1005	808
290	762	578	709	709	646	825	1003	1074
291	1005	1338	1156	1263	1268	1273	1816	1653
292	743	799	787	774	864	895	1265	1557
293	731	628	546	573	712	741	784	845
294	931	583	607	684	810	876	1126	834
295	700	644	552	619	667	799	751	935
296	723	1588	1364	1285	1569	1164	1884	2648
297	838	673	666	713	646	745	1007	1181
298	794	679	702	708	629	732	860	845
299	687	680	641	671	806	853	807	846
300	492	499	463	483	586	611	580	608
301	786	793	740	774	934	977	930	976
302	689	1160	841	761	1284	892	1023	926
303	442	295	343	388	383	554	431	490
304	649	680	669	674	813	834	836	843
305	1123	1615	1360	1245	1816	1411	1706	1577
306	432	324	334	357	402	526	420	450
307	489	361	408	439	467	585	509	548
308	534	341	401	459	452	640	504	576
309	828	935	908	929	1091	1083	1140	1169
310	608	605	637	627	744	749	799	786
311	693	667	698	732	826	903	879	922
312	585	675	611	659	743	814	769	830
313	1091	1780	1542	1369	2029	1457	1918	1762
314	872	1226	1172	1030	1565	1150	1465	1281
315	452	351	372	418	409	582	467	524
316	753	541	612	653	678	872	767	820
317	565	459	485	503	567	649	606	629
318	475	365	413	442	466	577	517	552
319	474	286	361	393	386	529	454	494
320	473	273	326	374	364	556	408	468

321	478	362	406	436	477	578	509	548
322	493	470	438	471	549	640	546	590
323	609	550	607	620	717	753	759	777
324	594	671	592	564	826	716	728	695
325	729	615	637	617	719	784	805	778
326	466	219	256	276	334	452	318	345
327	620	486	513	515	570	666	644	646
328	851	1231	1149	1077	1458	1112	1427	1340
329	584	445	480	534	547	724	606	675
330	478	274	323	370	368	543	405	464
331	628	612	668	655	755	758	845	830
332	520	320	356	397	392	581	445	496
333	848	814	962	988	1007	1068	1214	1249
334	635	424	507	550	553	732	638	693
335	545	347	444	464	491	619	558	584
336	594	431	439	473	549	707	542	586
337	625	689	506	466	448	496	550	482
338	702	557	455	474	570	632	732	790
339	513	654	544	518	696	563	751	668
340	710	868	808	786	880	975	1227	1078
341	604	481	418	449	448	516	693	638
342	667	594	503	520	602	630	627	642
343	694	586	441	447	603	673	534	489
344	924	746	655	724	727	832	1018	942
345	812	875	1010	995	1024	999	1617	1714
346	798	746	593	633	961	926	930	830
347	1014	973	825	806	1264	966	1097	1007
348	917	1456	1091	944	1678	1115	1692	1442
349	530	320	295	332	345	521	890	407
350	954	1262	723	692	1242	868	918	800
351	847	1971	1419	1260	1843	1542	1936	2270
352	641	475	390	455	529	668	530	583
353	574	626	489	530	692	753	638	993
354	585	574	507	468	543	611	959	716
355	519	255	303	374	353	643	421	395
356	1050	1660	1394	1311	1496	1071	1344	1329
357	754	539	478	541	582	821	640	1116
358	855	784	765	778	717	1023	1351	1150
359	969	674	882	944	906	954	960	1069
360	621	772	689	630	665	513	736	764
361	495	381	379	384	564	558	435	543
362	416	341	398	396	437	464	687	586
363	982	1357	1023	848	1087	902	1237	1132
364	679	587	553	575	713	598	817	877
365	641	949	823	721	1139	735	1229	993
366	503	369	291	385	397	487	448	513
367	760	892	772	722	833	835	1152	1069

368	676	705	509	540	547	660	2127	693
369	758	736	507	544	549	561	547	2184
370	344	272	283	347	282	429	410	1346
371	632	967	860	772	867	736	1880	1004
372	656	473	462	507	568	646	570	723
373	457	291	266	347	305	460	375	481
374	321	194	225	288	213	325	382	346
375	493	562	653	668	670	737	1092	898
376	584	756	610	613	684	543	792	789
377	638	385	463	521	459	553	646	881
378	438	346	381	442	367	516	598	640
379	706	420	607	600	539	655	1030	823
380	1156	1007	943	984	1010	1195	1059	1140
381	409	431	410	431	501	496	460	587
382	664	519	630	646	562	757	838	973
383	918	955	950	941	1078	1068	1393	1360
384	748	842	752	715	968	883	948	874
385	759	1023	1067	986	1053	944	1478	1344
386	676	671	583	646	775	694	882	978
387	680	482	515	558	615	688	827	930
388	654	589	500	537	766	694	784	717
389	882	666	597	723	699	986	793	952
390	1087	1456	1129	1191	1536	1281	1485	1564
391	444	332	299	362	351	497	392	469
392	727	567	530	609	635	811	687	787
393	1294	2435	2094	2099	2602	1946	2744	2748
394	570	376	369	458	426	594	470	579
395	931	1103	910	930	1204	1120	1173	1195
396	572	520	442	470	523	569	572	605
397	652	502	459	516	550	667	590	656
398	546	467	386	413	472	549	502	532
399	639	508	457	541	556	747	591	692
400	587	661	561	595	693	694	729	764
401	597	546	570	521	665	610	733	679
402	1112	1545	1504	1236	1743	1159	1952	1622
403	830	748	706	667	841	796	900	853
404	515	405	442	431	451	493	559	547
405	655	520	567	552	580	630	722	706
406	706	725	741	637	848	706	938	810
407	490	381	408	426	447	505	518	544
408	461	363	385	403	426	480	491	516
409	495	401	457	445	478	508	578	567
410	576	468	422	493	496	615	534	626
411	541	421	449	470	494	559	573	602
412	665	519	539	529	605	673	678	669
413	441	275	291	310	335	444	363	389
414	13713	15695	12116	12248	15874	16021	15267	15454

415	2633	7447	3287	3477	7173	3646	3945	4078
416	6863	5429	6144	6162	6317	7529	7069	7026
417	15351	13361	13492	13259	13715	16487	16885	16466
418	20103	21054	19080	19162	22192	21595	17317	17323
419	14785	15078	14359	13506	18130	15850	22862	21381
420	8561	8357	8434	8451	8265	8541	10721	10571
421	6083	5918	5801	5759	6202	6463	6356	6914
422	10431	9535	9722	9854	9840	10629	12128	12889
423	13433	13072	10310	10155	15462	12774	12823	12581
424	15575	15814	14204	13819	16408	16061	17532	18735
425	25160	21510	19410	20338	21602	27638	32330	31827
426	19875	18052	15898	16212	18785	21688	20370	20668
427	8646	8694	6863	6708	8577	8422	8752	8571
428	7472	5968	5161	5219	7140	6496	6481	6559
429	17073	17429	14544	14002	18049	17301	18356	17742
430	11485	13489	10777	10546	14280	13166	4800	4532
431	7431	5909	5299	5517	6060	6931	6259	6009
432	7432	6090	6343	6670	6867	7967	5669	5962
433	16277	16738	13535	14050	16475	17689	18068	18541
434	14162	15315	10918	10262	15937	12565	9071	8596
435	12464	11862	11059	11459	11985	12870	12778	12978
436	16114	16891	16213	15814	18066	17237	18518	18995
437	17165	17157	15377	15439	17176	17788	18494	18301
438	11662	11826	10898	10656	12393	12346	13204	12633
439	6227	6712	5306	5460	6666	7033	5980	6043
440	6403	6057	5960	6152	6103	6564	7244	7528
441	10909	9821	9881	10207	9533	10445	11571	11881
442	10349	10353	9989	10010	10431	10680	11344	11580
443	7601	7794	7399	7737	8028	7830	5836	6196
444	13713	13191	11354	10898	14826	13385	14192	14152
445	8547	9663	6440	7370	8917	8531	7974	9181
446	11572	11682	10246	10497	12875	12178	12346	13034
447	6576	7104	5203	5596	6691	7339	6476	7028
448	7131	7870	7161	7159	8787	7916	8976	8970
449	15417	15265	13287	13239	17040	17222	23359	23297
450	12128	12298	8501	8789	12809	11718	13601	14583
451	12819	11522	11320	11296	12422	13490	19890	19815
452	13484	13627	9567	10310	14231	14847	16095	17261
453	11092	9813	9996	10221	10274	11423	11159	10849
454	12644	10789	10682	10858	11090	12348	11259	10906
455	6802	6996	6647	6758	6325	6424	8381	8397
456	12858	13165	13170	13082	12525	12689	14732	14806
457	8539	8763	10478	10355	8485	8249	12124	12583
458	9018	12495	10200	10076	13717	11935	11191	12191
459	15622	13964	14896	14826	15021	15385	16548	16232
460	10263	11752	8977	9193	11748	11150	11837	12688
461	10159	8814	8792	8910	9146	9875	10777	10150

462	9452	11031	9241	9049	10549	10126	10605	10670
463	13462	13478	13243	12948	12975	12701	16870	16733
464	8530	8404	8426	8672	8129	8653	10503	10208
465	10986	11470	10250	10359	12039	11211	12869	13079
466	5980	6493	5401	5677	6364	6231	6757	7110
467	14658	14354	12778	13226	15432	15574	16237	16773
468	7570	9010	6964	6454	9950	7198	8619	8082
469	13961	13428	11043	11645	14753	14747	13833	14594
470	9342	9310	8080	7551	10654	7907	10212	9561
471	8366	8876	7436	7632	8403	9308	9371	9615
472	7613	7359	5655	6121	7641	7945	7094	7694
473	8657	8351	7661	7557	9098	9518	9661	9590
474	13695	13650	11329	10726	14202	12875	14083	13468
475	13028	14434	10249	9961	14221	13310	12841	12325
476	13345	12867	11273	11164	14325	13941	11656	10003
477	7869	8670	8206	8145	9398	9147	10174	11243
478	9207	8010	7356	6877	8433	9118	9540	8972
479	11875	13154	14523	14023	14266	13653	20315	19047
480	5990	9165	5566	5561	9770	7235	6880	6769
481	13352	11724	13346	12940	12725	14000	16675	16337
482	10171	9154	9104	8658	10241	10849	11543	10889
483	12381	11226	12782	12639	12099	13558	9312	9576
484	4022	3838	3445	3292	4110	4126	4550	3271
485	3611	4844	3888	3697	5440	4082	4774	4517
486	4908	4781	4954	4632	5856	5865	4754	4677
487	10166	9119	9257	9224	9100	10863	12011	12046
488	17593	16094	17430	16108	19421	17093	21607	20241
489	9585	9254	9393	9213	10123	11444	11597	11393
490	5065	6155	4248	4270	6635	5797	5288	5253
491	2716	4471	3948	3974	5065	3662	4911	4913
492	7453	7927	8288	8083	8493	8676	10368	10126
493	6915	7165	5180	5454	7650	7329	6377	6666
494	5874	5383	6183	6124	6030	6329	7839	7838
495	5564	5632	5142	4819	6177	6185	6280	5917
496	7227	6872	7309	6950	8610	8784	8897	8343
497	11047	9346	10087	9915	10689	12055	10474	9220
498	6479	6895	6977	6723	7371	7306	8746	8453
499	7595	8271	5505	5959	7950	7199	6853	7347
500	7856	7619	8476	8218	8109	8935	10564	10282
501	4816	7719	5047	4449	8262	5231	5526	4470
502	10245	8700	8328	8311	9255	10335	6837	8025
503	5947	6222	5591	5538	6990	6384	6966	6874
504	19179	22433	14058	14398	24425	21371	17264	17893
507	8	4	6	1	18	3	3	2
510	5	32	582	796	498	722	25	186
520	265	1293	412	1482	563	216	125	111
521	73	97	91	54	101	51	46	36

522	41	219	118	64	341	98	1307	1128
600	2026	914	1475	748	1866	1054	1765	939
601	274	315	381	327	546	412	465	402
602	839	683	700	571	759	791	820	679
603	961	717	557	672	713	1093	680	820
604	517	317	425	305	694	528	515	371
605	8	4	6	2	11	4	7	2
606	892	1510	692	994	1041	1715	877	1253
607	679	811	390	650	716	1363	462	790
608	1172	1318	1033	1040	1502	1359	1273	1281
609	299	290	175	214	299	374	215	260
610	958	560	588	613	688	1078	712	742
611	268	227	190	162	371	212	234	198
612	1283	1089	978	992	1314	1482	1218	1238
613	230	110	175	86	241	149	217	104
614	173	79	93	66	146	121	118	83
615	2494	2190	1902	1912	1985	2567	2393	2405
616	1189	1176	827	933	1072	1652	1056	1179
617	2506	3017	2040	1879	3251	2509	2483	2286
618	529	316	232	309	345	598	289	383
619	544	289	313	381	373	662	387	470
620	4868	5431	4278	4391	5781	5827	5319	5452
621	952	1372	1081	951	1364	1186	1345	1183
622	416	191	185	189	265	350	227	235
623	292	252	191	234	253	432	234	287
624	1653	1680	1145	1403	1645	2287	1427	1746
625	906	657	639	587	889	921	796	735
626	3966	4016	3219	3064	4438	4138	3976	3797
627	309	0	154	0	269	0	188	0
628	641	503	339	577	431	1023	419	715
629	626	477	457	404	754	599	554	489
630	142	162	170	118	274	153	209	146
631	328	200	126	188	100	326	155	230
632	1782	1904	1490	1375	2327	1927	1848	1721
633	2038	1701	1629	1336	2449	1842	2005	1647
634	441	894	414	433	1030	624	508	534
635	1370	833	862	747	1482	1229	1040	899
636	199	0	113	0	265	0	136	0
637	1231	976	1072	1116	1827	1890	1300	1363
638	488	555	306	380	580	482	370	464
639	545	680	221	436	342	894	273	532
640	788	543	393	357	568	598	480	436
641	926	595	469	575	682	1021	572	697
642	224	266	197	178	361	188	240	219
643	1445	1501	1101	1171	1551	1751	1355	1436
644	893	497	404	469	502	772	491	566
645	998	1032	691	684	1223	1102	851	837

646	3480	4667	3170	3514	5131	4882	3825	4407
647	2587	2670	1862	2115	2496	3012	2358	2646
648	4396	4036	3952	3788	5205	5217	4870	4615
649	4189	3912	2919	3666	3940	6360	3504	4382
650	3156	3937	2401	2724	3673	4282	2877	3306
651	2692	2553	2282	2471	2992	3183	2714	2972
652	4560	3359	3380	3101	4617	4367	4275	3895
60844	123	34	57	53	51	133	75	48
60956	410	114	190	178	170	444	250	160
60856	410	114	190	178	170	444	250	160
61171	104	25	40	40	53	103	51	54
60853	484	154	240	220	220	540	260	180
60972/60883	346	82	132	134	176	344	170	180
60888	52	12	20	20	26	52	26	27
60913	2050	570	950	890	850	2220	1250	800
60956	185	51	86	80	77	200	113	72
60893	242	77	120	110	110	270	130	90
60940	968	308	480	440	440	1080	520	360
60847	170	47	79	74	71	184	104	66
61209	519	123	198	201	264	516	255	270

9.7 Appendix G – Public Transport Trip Ends by Zone for Forecast Year 2044 (With and Without LP Scenarios)

FY 2044 without LP

PT Trip Ends - 2044 Without LP								
Zone No.	AM Peak Period		Inter-peak Period		PM Peak Period		SAT Peak Period	
	Origin	Destination	Origin	Destination	Origin	Destination	Origin	Destination
101	32	38	43	40	42	48	67	45
102	9	13	13	12	13	13	19	13
103	2	3	3	3	3	3	4	3
104	15	18	20	19	20	23	31	21
105	20	24	27	25	27	30	42	29
106	38	46	51	48	50	57	80	54
107	7	17	15	15	16	13	22	17
108	11	21	20	21	22	21	33	25
109	6	11	11	11	12	11	17	14
110	30	20	16	15	18	31	15	13
111	27	18	15	14	16	28	14	12
112	38	26	19	20	22	47	20	20
113	35	23	17	18	20	43	18	18
114	18	12	9	9	10	21	9	9
115	18	12	9	9	10	22	9	9
116	50	33	27	25	29	50	25	22
117	63	42	34	32	37	64	31	27
118	23	15	13	12	14	23	11	10
119	39	23	24	18	14	28	23	18
120	43	26	27	21	16	32	26	21
121	36	14	9	11	15	16	10	15
122	39	23	24	19	14	29	24	19
123	36	13	9	11	15	16	10	15
124	19	16	17	18	17	24	19	21
125	19	14	15	16	17	22	17	19
126	21	20	17	19	18	26	19	22
127	18	22	18	20	17	25	21	23
128	35	30	33	34	30	43	45	42
129	25	19	22	23	22	28	30	28
130	31	20	23	23	22	31	31	28
131	22	17	20	21	19	24	29	25
132	24	19	21	22	21	26	29	26
133	45	35	31	39	34	79	37	45
134	22	11	13	13	14	18	14	16
135	12	13	12	11	8	19	19	12
136	19	19	18	17	12	29	30	18
137	13	14	12	12	8	20	20	13
138	18	19	18	16	12	28	30	18
139	17	18	17	15	11	27	28	17
140	20	5	10	12	8	16	9	11
141	19	5	10	12	8	21	11	11

142	22	5	11	13	8	18	10	12
143	19	5	10	12	8	21	11	11
144	25	6	13	15	10	26	14	14
145	39	12	15	13	14	41	19	15
146	18	6	9	14	7	13	10	15
147	16	5	8	12	6	11	8	12
148	19	6	10	15	7	14	10	16
149	21	7	11	17	8	16	11	18
150	19	6	10	15	7	14	10	16
151	27	10	15	23	11	21	16	25
152	33	13	8	10	14	15	9	13
153	35	6	7	9	5	19	7	11
154	42	8	9	11	6	24	9	13
155	17	11	18	14	7	18	17	13
156	9	6	10	8	4	10	9	7
157	9	6	7	6	5	11	7	6
158	15	10	16	13	6	16	15	11
159	37	18	20	23	24	33	21	25
160	70	31	36	42	42	61	37	45
161	53	25	29	33	35	48	30	36
162	53	26	29	33	35	48	30	36
163	47	59	33	23	69	30	33	26
164	63	80	45	31	95	40	44	35
165	82	103	58	40	122	52	56	49
166	186	149	116	108	197	191	119	129
167	37	60	28	29	60	29	37	31
168	54	86	41	42	86	43	52	44
169	19	9	9	9	17	14	12	10
170	17	8	8	8	15	12	11	9
171	38	60	29	30	60	31	38	32
172	21	24	15	15	29	14	14	17
173	29	48	23	24	48	23	30	25
174	30	50	24	24	50	24	31	26
175	19	24	13	11	11	13	12	12
176	16	21	11	10	10	11	10	10
177	20	22	15	12	5	17	12	11
178	18	23	12	11	11	13	11	11
179	22	13	14	14	13	19	13	12
180	28	31	19	20	37	18	19	22
181	27	17	18	18	18	24	16	15
182	22	24	15	15	29	14	14	17
183	51	16	20	17	19	53	24	20
184	33	10	13	11	12	35	16	13
185	80	24	31	27	29	83	38	32
186	25	8	10	9	9	26	12	10
187	36	11	14	12	13	38	17	14
188	26	7	14	16	11	28	15	14

189	18	22	14	13	12	18	16	10
190	38	37	28	29	21	36	31	27
191	20	22	13	13	11	20	15	10
192	19	23	13	13	11	20	16	10
193	70	42	43	34	26	52	42	33
194	13	7	9	9	7	16	9	9
195	12	4	6	7	7	12	7	7
196	15	5	8	9	9	16	9	10
197	15	4	7	8	8	15	9	9
198	14	7	10	9	7	16	10	9
199	14	8	10	9	7	16	10	9
200	33	24	20	16	18	31	27	16
201	15	5	7	8	8	15	8	9
202	25	18	15	12	13	23	20	12
203	42	30	25	20	21	38	33	20
204	22	10	10	11	19	16	14	11
205	24	11	11	12	20	17	15	12
206	20	9	9	10	17	14	12	10
207	22	11	11	11	19	16	14	11
208	9	6	10	7	4	10	9	7
209	9	5	7	6	5	11	7	6
210	8	5	9	7	3	9	8	6
211	19	14	12	9	10	18	15	9
212	16	11	9	7	8	14	12	7
213	11	4	5	6	7	12	6	7
214	55	38	37	35	43	62	39	31
215	33	25	23	22	28	39	24	19
216	20	15	14	13	17	23	15	11
217	26	19	18	17	22	30	19	15
218	28	21	19	18	24	32	20	16
219	21	15	14	13	18	24	15	12
220	25	19	17	16	21	29	18	14
221	19	14	13	12	16	22	14	11
222	76	93	104	96	102	115	160	108
223	384	98	213	299	186	597	231	329
224	45	23	26	27	29	36	28	33
225	45	53	60	56	59	68	94	63
226	1	1	1	0	0	1	1	0
227	1	1	1	1	1	1	1	1
228	1	1	1	1	1	1	1	1
229	1	1	1	1	1	1	1	1
230	1	1	1	0	0	1	1	0
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232	1	1	1	0	1	1	1	1
233	2	1	2	1	1	1	1	1
234	1	1	1	1	1	1	1	1
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243	2	1	1	1	1	1	1	1
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251	2	1	1	1	1	1	1	1
252	1	1	1	0	0	1	1	1
253	1	0	1	0	0	1	1	0
254	16	3	5	4	3	4	6	5
255	24	9	11	13	12	31	13	19
256	40	5	3	5	4	6	3	5
257	24	8	16	10	11	16	19	14
258	16	2	9	6	7	9	12	5
259	16	9	11	8	13	10	12	11
260	30	28	20	33	36	27	23	40
261	9	2	8	8	3	5	9	11
262	31	11	12	9	7	14	16	11
263	28	19	15	21	23	17	16	21
264	7	6	9	5	9	23	9	6
265	34	14	15	14	19	22	29	14
266	35	59	36	42	84	33	44	39
267	23	9	12	14	14	15	13	17
268	19	10	5	8	11	15	7	10
269	41	23	15	14	27	22	24	16
270	34	32	15	21	42	21	20	26
271	34	40	32	29	43	29	42	28
272	18	27	23	28	35	24	25	39
273	10	7	7	6	9	9	9	8
274	34	47	40	40	48	41	42	46
275	17	14	10	10	14	13	10	13
276	8	12	7	7	6	6	8	8
277	9	13	4	8	9	14	4	10
278	15	3	4	5	5	8	5	7
279	29	22	11	16	23	13	13	20
280	23	19	26	20	23	8	20	20
281	23	11	15	17	16	15	14	19
282	99	58	83	72	60	87	82	64

283	72	61	75	91	72	82	76	107
284	58	26	54	41	51	92	55	42
285	136	162	155	139	108	145	145	141
286	139	125	121	106	84	124	109	104
287	125	99	123	160	133	163	110	125
288	98	38	71	83	63	129	88	94
289	193	99	123	123	105	226	112	136
290	157	166	135	113	129	160	140	86
291	215	238	246	259	262	255	254	237
292	211	121	154	154	129	237	199	187
293	221	89	139	158	105	212	132	176
294	184	88	111	137	123	197	121	136
295	241	74	152	166	106	223	155	165
296	291	562	456	400	490	371	434	631
297	197	83	124	141	93	165	117	170
298	120	102	114	92	79	132	136	85
299	1	1	1	1	1	1	1	1
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302	1	1	1	1	1	1	1	1
303	0	0	0	0	0	1	0	0
304	1	1	1	1	1	1	1	1
305	1	1	1	1	1	2	1	1
306	0	0	0	0	0	1	1	0
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308	0	0	0	0	1	1	1	0
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310	1	1	1	1	1	1	1	1
311	1	0	1	0	1	1	1	1
312	1	1	1	1	1	1	1	1
313	1	1	1	1	2	2	2	1
314	1	0	1	0	1	1	1	1
315	0	0	0	0	1	1	1	0
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317	0	0	0	0	1	1	1	0
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319	0	0	0	0	0	1	0	0
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321	0	0	0	0	1	1	1	0
322	0	0	0	0	1	1	1	0
323	1	1	1	1	1	1	1	1
324	0	0	0	0	1	1	1	0
325	1	0	1	0	1	1	1	1
326	0	0	0	0	1	1	1	0
327	0	0	0	0	1	1	1	0
328	0	0	0	0	1	1	1	0
329	0	0	0	0	1	1	1	0

330	0	0	0	0	1	1	1	0
331	1	0	1	0	1	1	1	1
332	0	0	0	0	0	1	0	0
333	1	0	1	0	1	1	1	1
334	1	0	1	0	1	1	1	1
335	0	0	0	0	1	1	1	0
336	1	0	1	0	1	1	1	1
337	121	65	53	41	39	96	49	44
338	150	49	55	52	56	162	53	76
339	199	106	105	123	135	203	102	113
340	136	93	102	84	91	178	107	100
341	122	57	60	66	56	127	81	62
342	106	57	56	59	53	98	48	53
343	101	62	76	58	55	105	76	55
344	131	38	57	79	86	152	51	67
345	88	68	59	60	48	99	53	57
346	110	39	68	62	41	112	71	56
347	65	80	68	78	83	103	72	71
348	108	78	92	103	81	111	100	88
349	54	30	58	52	43	64	66	50
350	158	113	91	99	106	163	90	92
351	243	313	297	288	300	295	360	319
352	263	99	107	119	70	154	105	118
353	151	85	71	85	68	110	66	117
354	86	70	47	98	48	112	50	87
355	87	34	45	54	31	95	50	52
356	181	169	154	138	142	193	133	139
357	167	43	79	76	62	159	80	95
358	125	65	85	114	86	150	112	146
359	69	33	47	45	32	74	43	46
360	141	142	114	76	95	129	77	81
361	152	39	48	70	59	123	38	62
362	95	35	44	53	49	120	78	54
363	313	222	176	134	179	304	150	127
364	95	56	58	68	57	117	73	72
365	386	270	224	180	236	371	219	165
366	43	15	35	42	23	60	31	43
367	77	44	59	82	60	85	55	72
368	61	52	70	70	51	82	70	64
369	69	117	95	53	97	86	94	50
370	40	15	26	25	12	37	24	25
371	79	86	114	96	55	82	108	91
372	156	64	84	86	65	151	84	77
373	74	28	46	52	38	73	67	55
374	69	24	37	53	39	55	45	50
375	124	120	98	112	118	146	95	97
376	93	96	102	102	78	101	104	111

377	57	26	44	72	56	113	52	93
378	45	25	46	39	28	55	48	34
379	108	60	94	89	54	117	76	76
380	276	156	164	163	125	270	130	127
381	94	65	76	79	71	89	64	56
382	147	84	55	58	62	137	52	59
383	120	86	79	92	88	166	69	76
384	148	112	135	162	129	168	108	132
385	190	118	122	150	156	181	105	146
386	89	34	61	54	69	127	55	53
387	79	36	59	60	48	71	60	66
388	1	1	1	1	1	1	2	1
389	2	2	2	1	2	1	2	2
390	1	1	1	1	1	1	2	1
391	1	1	1	1	1	1	1	1
392	1	1	1	1	1	1	1	1
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397	1	1	1	0	1	0	1	1
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401	1	1	1	1	1	1	1	1
402	1	1	1	1	1	1	2	1
403	1	1	1	1	1	1	1	1
404	1	1	1	0	1	0	1	0
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406	1	1	1	0	1	0	1	1
407	0	1	0	0	1	0	1	0
408	0	0	0	0	0	0	1	0
409	1	1	1	0	1	0	1	0
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411	1	1	1	0	1	0	1	1
412	1	1	1	0	1	0	1	1
413	0	1	0	0	1	0	1	0
414	1	2	1	1	2	1	1	1
415	149	2970	459	281	3812	194	461	335
416	211	186	121	130	250	178	161	165
417	32	29	28	14	50	22	36	17
418	25	16	25	21	22	18	36	20
419	1	5	2	2	4	3	2	2
420	577	498	479	510	414	531	328	396
421	474	352	358	347	310	362	287	252
422	42	73	36	37	91	52	39	55
423	1	2	2	1	2	1	1	1

424	1	4	1	2	2	1	1	2
425	2	8	4	3	5	4	4	3
426	3	3	3	2	3	3	3	3
427	1	1	1	1	1	1	1	1
428	1	1	1	1	1	1	1	1
429	2	3	2	2	2	2	2	2
430	64	292	109	95	333	81	88	42
431	92	139	87	98	131	111	60	87
432	68	64	72	62	47	47	47	39
433	2	10	5	6	8	3	3	5
434	52	121	61	54	130	59	33	28
435	1437	971	1045	1113	1061	1442	730	754
436	2288	1748	1656	1532	1675	2227	1231	1092
437	2422	2256	2228	2176	2122	2583	1677	1582
438	1073	1079	907	922	924	1198	689	703
439	986	854	865	884	830	940	707	655
440	525	403	536	588	510	660	439	477
441	1900	1418	1807	1885	1186	1625	1284	1377
442	1328	981	1111	1193	1069	1474	767	838
443	106	106	113	105	103	87	73	79
444	0	3	1	1	2	1	1	1
445	1	6	3	4	4	2	3	4
446	2	9	6	4	5	4	3	4
447	1	3	1	1	4	2	1	1
448	1	2	2	2	4	1	2	2
449	17	18	18	13	18	12	25	14
450	11	12	11	9	12	8	16	10
451	15	15	15	11	15	11	21	12
452	12	13	13	10	13	9	18	11
453	865	690	743	768	679	733	507	545
454	917	671	762	750	572	748	471	475
455	876	787	921	934	741	807	655	668
456	765	714	823	816	628	706	573	573
457	771	756	1016	1015	687	706	666	675
458	1408	1724	1578	1525	1501	1242	1247	1190
459	841	817	781	809	555	698	538	570
460	1099	1182	1146	1107	1144	1150	1160	967
461	786	582	583	616	599	733	399	465
462	614	836	710	660	662	642	466	479
463	833	804	1015	1037	744	759	726	795
464	1024	936	1153	1150	815	900	788	773
465	0	1	1	1	1	1	1	1
466	1	1	1	1	1	1	1	1
467	1	2	1	1	2	1	1	1
468	0	1	1	1	1	0	1	1
469	1	2	1	2	2	1	1	1
470	0	1	1	1	1	1	1	1

471	0	1	1	1	1	1	1	1
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473	0	1	1	1	1	1	1	1
474	1	5	2	3	4	1	2	3
475	6	15	6	4	11	4	5	4
476	281	437	313	277	363	339	207	191
477	1	4	1	2	3	1	1	2
478	19	30	14	28	48	37	13	32
479	8	8	5	7	16	4	5	7
480	75	712	130	175	677	158	135	185
481	9	16	11	7	21	12	10	8
482	18	27	13	16	44	15	13	21
483	77	61	69	65	65	60	49	49
484	78	286	83	82	318	121	76	101
485	29	100	34	25	113	31	40	36
486	74	62	70	51	111	57	43	58
487	8	7	6	6	9	11	6	8
488	44	41	27	44	39	42	21	47
489	11	21	10	7	25	10	11	8
490	53	356	78	80	343	100	78	99
491	15	120	37	40	117	25	38	50
492	3	6	5	4	7	6	9	5
493	33	154	50	45	174	55	53	49
494	25	26	19	18	31	34	22	24
495	7	11	6	4	18	9	7	6
496	202	513	244	218	690	304	335	378
497	223	183	208	202	269	235	154	175
498	5	12	9	7	13	7	12	8
499	43	352	62	67	359	63	61	82
500	3	3	4	3	5	4	4	3
501	114	1035	203	186	1108	230	237	274
502	110	109	86	100	120	95	70	78
503	18	45	27	22	75	22	31	22
504	85	1212	187	281	1112	194	210	327
507	0	0	0	0	0	0	0	0
510	0	0	0	0	0	0	0	0
520	6	17	11	9	17	4	11	8
521	45	66	66	56	66	46	62	52
522	0	0	0	0	0	0	0	0
600	1	0	1	0	1	0	1	1
601	0	0	0	0	0	0	0	0
602	0	0	0	0	0	0	0	0
603	0	0	0	0	0	0	0	0
604	0	0	0	0	0	0	0	0
605	0	0	0	0	0	0	0	0
606	0	1	1	1	1	1	1	1
607	0	0	0	0	0	0	0	0

608	0	0	0	0	0	0	1	0
609	0	0	0	0	0	0	0	0
610	0	0	0	0	0	0	0	0
611	0	0	0	0	0	0	0	0
612	0	0	0	0	0	0	0	0
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614	0	0	0	0	0	0	0	0
615	0	1	1	1	1	1	1	1
616	0	0	0	0	0	0	0	0
617	1	1	1	1	1	1	1	1
618	0	0	0	0	0	0	0	0
619	0	0	0	0	0	0	0	0
620	1	1	2	1	2	1	2	2
621	0	0	0	0	0	0	0	0
622	0	0	0	0	0	0	0	0
623	0	0	0	0	0	0	0	0
624	0	1	0	0	0	1	1	1
625	0	0	0	0	0	0	0	0
626	1	1	1	1	1	1	1	1
627	0	0	0	0	0	0	0	0
628	0	0	0	0	0	0	0	0
629	0	0	0	0	0	0	0	0
630	0	0	0	0	0	0	0	0
631	0	0	0	0	0	0	0	0
632	0	0	1	0	1	0	1	1
633	1	0	1	0	1	0	1	1
634	0	0	0	0	0	0	0	0
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636	0	0	0	0	0	0	0	0
637	0	0	0	0	0	0	1	0
638	0	0	0	0	0	0	0	0
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643	0	0	0	0	0	0	0	0
644	0	0	0	0	0	0	0	0
645	0	0	0	0	0	0	0	0
646	1	2	2	1	2	2	2	2
647	1	1	1	1	1	1	1	1
648	1	1	1	1	1	1	2	1
649	1	1	1	1	1	1	2	2
650	0	0	0	0	0	0	0	0
651	1	1	1	1	1	1	1	1
652	0	0	0	0	0	0	0	0

FY 2044 With LP

PT Trip Ends - 2044 With LP								
Zone No.	AM Peak Period		Inter-peak Period		PM Peak Period		SAT Peak Period	
	Origin	Destination	Origin	Destination	Origin	Destination	Origin	Destination
101	32	39	43	40	43	48	67	46
102	11	29	21	19	24	16	27	20
103	7	35	19	18	25	9	21	18
104	16	26	24	22	25	24	35	25
105	20	25	28	25	27	30	42	29
106	43	81	69	64	74	64	98	70
107	13	57	35	33	43	20	42	36
108	11	21	20	21	22	21	33	25
109	6	11	11	11	12	11	17	14
110	30	20	16	15	18	31	15	13
111	27	18	15	14	16	28	14	12
112	38	26	19	20	22	47	20	20
113	35	23	17	18	20	43	18	18
114	18	12	9	9	10	21	9	9
115	18	12	9	9	10	22	9	9
116	50	33	27	25	29	50	25	22
117	63	42	34	32	37	64	31	27
118	23	15	13	12	14	23	11	10
119	39	23	24	18	14	28	23	18
120	43	26	27	21	16	32	26	21
121	36	14	9	11	15	16	10	15
122	39	23	24	19	14	29	24	19
123	36	13	9	11	15	16	10	15
124	19	16	17	18	17	24	19	21
125	19	14	15	16	17	22	17	19
126	21	20	17	19	18	26	19	22
127	18	22	18	20	17	25	21	23
128	35	30	33	34	30	43	45	42
129	25	19	22	23	22	28	30	28
130	31	20	23	23	22	31	31	28
131	22	17	20	21	19	24	29	25
132	24	19	21	22	21	26	29	26
133	45	35	31	39	34	79	37	45
134	23	15	14	14	17	18	15	17
135	12	13	12	11	8	19	19	12
136	29	22	18	17	18	38	30	19
137	71	27	18	18	41	73	25	19
138	19	19	18	16	13	29	30	18
139	97	37	30	25	84	146	38	28
140	20	5	10	12	8	16	9	11
141	20	9	13	14	11	21	13	12
142	22	5	11	13	8	18	10	12
143	19	5	10	12	8	21	11	11

144	46	11	13	15	23	45	14	14
145	251	59	33	31	193	324	36	33
146	24	7	10	15	10	18	10	16
147	16	5	8	12	6	11	8	12
148	30	9	11	16	14	24	11	17
149	21	7	11	17	8	16	11	18
150	19	6	10	15	7	14	10	16
151	27	10	15	23	11	21	16	25
152	33	13	8	10	14	15	9	13
153	37	7	7	9	6	21	7	11
154	42	8	9	11	6	24	9	13
155	370	92	69	53	327	539	58	57
156	9	6	10	8	4	10	9	7
157	25	9	9	8	14	25	9	8
158	15	10	16	13	6	16	15	11
159	37	18	20	23	24	33	21	25
160	201	63	54	55	159	246	52	61
161	53	25	29	33	35	48	30	36
162	90	34	32	37	55	81	33	40
163	47	59	33	23	69	30	33	26
164	63	81	46	31	95	40	44	36
165	82	103	58	40	122	52	56	49
166	276	181	107	95	385	308	110	114
167	37	60	28	29	60	29	37	31
168	63	88	41	42	96	51	52	44
169	19	9	9	9	17	14	12	10
170	17	8	8	8	15	12	11	9
171	43	62	29	30	66	35	38	32
172	21	24	15	15	29	14	14	17
173	29	48	23	24	48	23	30	25
174	36	51	24	25	53	29	31	26
175	56	33	17	15	32	47	15	16
176	16	21	11	10	10	11	10	10
177	20	22	15	12	5	17	12	11
178	18	23	12	11	11	13	11	11
179	26	14	14	13	17	23	13	12
180	28	31	19	20	37	18	19	22
181	29	18	18	18	19	25	16	15
182	22	24	15	15	29	14	14	17
183	471	112	100	141	619	738	112	156
184	33	10	13	11	12	35	16	13
185	162	43	35	31	108	153	41	36
186	25	8	10	9	9	26	12	10
187	36	11	14	12	13	38	17	14
188	30	8	14	16	14	32	15	14
189	406	112	76	58	366	594	64	64
190	1715	447	311	253	1596	2528	265	283

191	19	22	13	12	11	20	15	10
192	24	24	13	13	14	25	16	11
193	70	42	43	34	26	52	42	33
194	17	8	9	9	9	19	9	9
195	12	4	6	7	7	12	7	7
196	15	5	8	9	9	16	9	10
197	15	4	7	8	8	15	9	9
198	25	10	10	10	14	26	10	9
199	14	8	10	9	8	17	10	9
200	33	24	20	16	18	31	27	16
201	15	5	7	8	8	15	8	9
202	25	18	15	12	13	23	20	12
203	204	67	44	46	184	228	53	48
204	60	19	16	17	40	50	20	17
205	43	15	14	15	31	34	18	15
206	20	9	9	10	17	14	12	10
207	22	11	11	11	19	16	14	11
208	9	6	10	7	4	10	9	7
209	9	5	7	6	5	11	7	6
210	8	5	9	7	3	9	8	6
211	19	14	12	9	10	18	15	9
212	16	11	9	7	8	14	12	7
213	11	4	5	6	7	12	6	7
214	50	37	34	32	42	57	36	28
215	37	49	35	34	48	46	36	31
216	20	15	14	13	17	23	15	11
217	26	19	18	17	22	30	19	15
218	42	25	22	21	33	45	23	18
219	21	15	14	13	18	24	15	12
220	25	19	17	16	21	29	18	14
221	19	14	13	12	16	22	14	11
222	77	101	108	99	107	116	164	112
223	675	177	150	216	936	1063	163	240
224	45	23	26	27	29	36	28	33
225	45	55	62	57	61	68	95	64
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227	1	1	1	1	1	1	1	1
228	1	1	1	1	1	1	1	1
229	1	1	1	1	1	1	1	1
230	1	1	1	0	0	1	1	0
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232	1	1	1	0	1	1	1	1
233	2	1	2	1	1	1	1	1
234	1	1	1	1	1	1	1	1
235	1	1	1	0	1	1	1	1
236	1	1	1	0	0	1	1	0
237	1	1	1	0	0	1	1	0

238	1	1	1	0	0	1	1	0
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240	1	1	1	1	1	1	1	1
241	1	1	1	0	0	1	1	1
242	1	1	1	0	0	1	1	1
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251	2	1	1	1	1	1	1	1
252	1	1	1	0	0	1	1	1
253	1	0	1	0	0	1	1	0
254	16	3	5	4	3	4	6	5
255	24	9	11	13	12	31	13	19
256	40	5	3	5	4	6	3	5
257	24	8	16	10	11	16	19	14
258	16	2	9	6	7	9	12	5
259	16	9	11	8	13	10	12	11
260	30	28	20	33	36	27	23	40
261	9	2	8	8	3	5	9	11
262	31	11	12	9	7	14	16	11
263	28	19	15	21	23	17	16	21
264	7	6	9	5	9	23	9	6
265	34	14	15	14	19	22	29	14
266	35	59	36	42	84	33	44	39
267	23	9	12	14	14	15	13	17
268	19	10	5	8	11	15	7	10
269	41	23	15	14	27	22	24	16
270	34	32	15	21	42	21	20	26
271	34	40	32	29	43	29	42	28
272	18	27	23	28	35	24	25	39
273	10	7	7	6	9	9	9	8
274	34	47	40	40	48	41	42	46
275	17	14	10	10	14	13	10	13
276	8	12	7	7	6	6	8	8
277	9	13	4	8	9	14	4	10
278	15	3	4	5	5	8	5	7
279	29	22	11	16	23	13	13	20
280	23	19	26	20	23	8	20	20
281	23	11	15	17	16	15	14	19
282	99	58	83	72	60	87	82	64
283	72	61	75	91	72	82	76	107
284	58	26	54	41	51	92	55	42

285	136	162	155	139	108	145	145	141
286	139	125	121	106	84	124	109	104
287	125	99	123	160	133	163	110	125
288	98	38	71	83	63	129	88	94
289	193	99	123	123	105	226	112	136
290	157	166	135	113	129	160	140	86
291	215	238	246	259	262	255	254	237
292	211	121	154	154	129	237	199	187
293	221	89	139	158	105	212	132	176
294	184	88	111	137	123	197	121	136
295	241	74	152	166	106	223	155	165
296	291	562	456	400	490	371	434	631
297	197	83	124	141	93	165	117	170
298	120	102	114	92	79	132	136	85
299	1	1	1	1	1	1	1	1
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302	1	1	1	1	1	1	1	1
303	0	0	0	0	0	1	0	0
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305	1	1	1	1	1	2	1	1
306	0	0	0	0	0	1	1	0
307	1	0	1	0	1	1	1	1
308	0	0	0	0	1	1	1	0
309	1	1	1	1	1	1	1	1
310	1	1	1	1	1	1	1	1
311	1	0	1	0	1	1	1	1
312	1	1	1	1	1	1	1	1
313	1	1	1	1	2	2	2	1
314	1	0	1	0	1	1	1	1
315	0	0	0	0	1	1	1	0
316	1	1	1	1	1	1	1	1
317	0	0	0	0	1	1	1	0
318	1	0	1	0	1	1	1	1
319	0	0	0	0	0	1	0	0
320	0	0	0	0	1	1	1	0
321	0	0	0	0	1	1	1	0
322	0	0	0	0	1	1	1	0
323	1	1	1	1	1	1	1	1
324	0	0	0	0	1	1	1	0
325	1	0	1	0	1	1	1	1
326	0	0	0	0	1	1	1	0
327	0	0	0	0	1	1	1	0
328	0	0	0	0	1	1	1	0
329	0	0	0	0	1	1	1	0
330	0	0	0	0	1	1	1	0
331	1	0	1	0	1	1	1	1

332	0	0	0	0	0	1	0	0
333	1	0	1	0	1	1	1	1
334	1	0	1	0	1	1	1	1
335	0	0	0	0	1	1	1	0
336	1	0	1	0	1	1	1	1
337	121	65	53	41	39	96	49	44
338	150	49	55	52	56	162	53	76
339	199	106	105	123	135	203	102	113
340	136	93	102	84	91	178	107	100
341	122	57	60	66	56	127	81	62
342	106	57	56	59	53	98	48	53
343	101	62	76	58	55	105	76	55
344	131	38	57	79	86	152	51	67
345	88	68	59	60	48	99	53	57
346	110	39	68	62	41	112	71	56
347	65	80	68	78	83	103	72	71
348	108	78	92	103	81	111	100	88
349	54	30	58	52	43	64	66	50
350	158	113	91	99	106	163	90	92
351	243	313	297	288	300	295	360	319
352	263	99	107	119	70	154	105	118
353	151	85	71	85	68	110	66	117
354	86	70	47	98	48	112	50	87
355	87	34	45	54	31	95	50	52
356	181	169	154	138	142	193	133	139
357	167	43	79	76	62	159	80	95
358	125	65	85	114	86	150	112	146
359	69	33	47	45	32	74	43	46
360	141	142	114	76	95	129	77	81
361	152	39	48	70	59	123	38	62
362	95	35	44	53	49	120	78	54
363	313	222	176	134	179	304	150	127
364	95	56	58	68	57	117	73	72
365	386	270	224	180	236	371	219	165
366	43	15	35	42	23	60	31	43
367	77	44	59	82	60	85	55	72
368	61	52	70	70	51	82	70	64
369	69	117	95	53	97	86	94	50
370	40	15	26	25	12	37	24	25
371	79	86	114	96	55	82	108	91
372	156	64	84	86	65	151	84	77
373	74	28	46	52	38	73	67	55
374	69	24	37	53	39	55	45	50
375	124	120	98	112	118	146	95	97
376	93	96	102	102	78	101	104	111
377	57	26	44	72	56	113	52	93
378	45	25	46	39	28	55	48	34

379	108	60	94	89	54	117	76	76
380	276	156	164	163	125	270	130	127
381	94	65	76	79	71	89	64	56
382	147	84	55	58	62	137	52	59
383	120	86	79	92	88	166	69	76
384	148	112	135	162	129	168	108	132
385	190	118	122	150	156	181	105	146
386	89	34	61	54	69	127	55	53
387	79	36	59	60	48	71	60	66
388	1	1	1	1	1	1	2	1
389	2	2	2	1	2	1	2	2
390	1	1	1	1	1	1	2	1
391	1	1	1	1	1	1	1	1
392	1	1	1	1	1	1	1	1
393	1	1	1	1	1	1	1	1
394	1	1	1	0	1	0	1	1
395	1	1	1	1	1	1	1	1
396	1	1	1	0	1	0	1	1
397	1	1	1	0	1	0	1	1
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400	1	1	1	0	1	0	1	1
401	1	1	1	1	1	1	1	1
402	1	1	1	1	1	1	2	1
403	1	1	1	1	1	1	1	1
404	1	1	1	0	1	0	1	0
405	1	1	1	1	1	0	1	1
406	1	1	1	0	1	0	1	1
407	0	1	0	0	1	0	1	0
408	0	0	0	0	0	0	1	0
409	1	1	1	0	1	0	1	0
410	1	1	1	0	1	0	1	1
411	1	1	1	0	1	0	1	1
412	1	1	1	0	1	0	1	1
413	0	1	0	0	1	0	1	0
414	1	2	1	1	2	1	1	1
415	149	2970	459	281	3812	194	461	335
416	211	186	121	130	250	178	161	165
417	32	29	28	14	50	22	36	17
418	25	16	25	21	22	18	36	20
419	1	5	2	2	4	3	2	2
420	577	498	479	510	414	531	328	396
421	474	352	358	347	310	362	287	252
422	42	73	36	37	91	52	39	55
423	1	2	2	1	2	1	1	1
424	1	4	1	2	2	1	1	2
425	2	8	4	3	5	4	4	3

426	3	3	3	2	3	3	3	3
427	1	1	1	1	1	1	1	1
428	1	1	1	1	1	1	1	1
429	2	3	2	2	2	2	2	2
430	64	292	109	95	333	81	88	42
431	92	139	87	98	131	111	60	87
432	68	64	72	62	47	47	47	39
433	2	10	5	6	8	3	3	5
434	52	121	61	54	130	59	33	28
435	1437	971	1045	1113	1061	1442	730	754
436	2288	1748	1656	1532	1675	2227	1231	1092
437	2422	2256	2228	2176	2122	2583	1677	1582
438	1073	1079	907	922	924	1198	689	703
439	986	854	865	884	830	940	707	655
440	525	403	536	588	510	660	439	477
441	1900	1418	1807	1885	1186	1625	1284	1377
442	1328	981	1111	1193	1069	1474	767	838
443	106	106	113	105	103	87	73	79
444	0	3	1	1	2	1	1	1
445	1	6	3	4	4	2	3	4
446	2	9	6	4	5	4	3	4
447	1	3	1	1	4	2	1	1
448	1	2	2	2	4	1	2	2
449	17	18	18	13	18	12	25	14
450	11	12	11	9	12	8	16	10
451	15	15	15	11	15	11	21	12
452	12	13	13	10	13	9	18	11
453	865	690	743	768	679	733	507	545
454	917	671	762	750	572	748	471	475
455	876	787	921	934	741	807	655	668
456	765	714	823	816	628	706	573	573
457	771	756	1016	1015	687	706	666	675
458	1408	1724	1578	1525	1501	1242	1247	1190
459	841	817	781	809	555	698	538	570
460	1099	1182	1146	1107	1144	1150	1160	967
461	786	582	583	616	599	733	399	465
462	614	836	710	660	662	642	466	479
463	833	804	1015	1037	744	759	726	795
464	1024	936	1153	1150	815	900	788	773
465	0	1	1	1	1	1	1	1
466	1	1	1	1	1	1	1	1
467	1	2	1	1	2	1	1	1
468	0	1	1	1	1	0	1	1
469	1	2	1	2	2	1	1	1
470	0	1	1	1	1	1	1	1
471	0	1	1	1	1	1	1	1
472	0	1	1	1	1	0	1	1

473	0	1	1	1	1	1	1	1
474	1	5	2	3	4	1	2	3
475	6	15	6	4	11	4	5	4
476	281	437	313	277	363	339	207	191
477	1	4	1	2	3	1	1	2
478	19	30	14	28	48	37	13	32
479	8	8	5	7	16	4	5	7
480	75	712	130	175	677	158	135	185
481	9	16	11	7	21	12	10	8
482	18	27	13	16	44	15	13	21
483	77	61	69	65	65	60	49	49
484	78	286	83	82	318	121	76	101
485	29	100	34	25	113	31	40	36
486	74	62	70	51	111	57	43	58
487	8	7	6	6	9	11	6	8
488	44	41	27	44	39	42	21	47
489	11	21	10	7	25	10	11	8
490	53	356	78	80	343	100	78	99
491	15	120	37	40	117	25	38	50
492	3	6	5	4	7	6	9	5
493	33	154	50	45	174	55	53	49
494	25	26	19	18	31	34	22	24
495	7	11	6	4	18	9	7	6
496	202	513	244	218	690	304	335	378
497	223	183	208	202	269	235	154	175
498	5	12	9	7	13	7	12	8
499	43	352	62	67	359	63	61	82
500	3	3	4	3	5	4	4	3
501	114	1035	203	186	1108	230	237	274
502	110	109	86	100	120	95	70	78
503	18	45	27	22	75	22	31	22
504	85	1212	187	281	1112	194	210	327
507	0	0	0	0	0	0	0	0
510	0	0	0	0	0	0	0	0
520	15	43	25	20	37	6	25	19
521	45	66	66	56	66	46	62	52
522	0	0	0	0	0	0	0	0
600	1	0	1	0	1	0	1	1
601	0	0	0	0	0	0	0	0
602	0	0	0	0	0	0	0	0
603	0	0	0	0	0	0	0	0
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606	0	1	1	1	1	1	1	1
607	0	0	0	0	0	0	0	0
608	0	0	0	0	0	0	1	0
609	0	0	0	0	0	0	0	0

610	0	0	0	0	0	0	0	0
611	0	0	0	0	0	0	0	0
612	0	0	0	0	0	0	0	0
613	0	0	0	0	0	0	0	0
614	0	0	0	0	0	0	0	0
615	0	1	1	1	1	1	1	1
616	0	0	0	0	0	0	0	0
617	1	1	1	1	1	1	1	1
618	0	0	0	0	0	0	0	0
619	0	0	0	0	0	0	0	0
620	1	1	2	1	2	1	2	2
621	0	0	0	0	0	0	0	0
622	0	0	0	0	0	0	0	0
623	0	0	0	0	0	0	0	0
624	0	1	0	0	0	1	1	1
625	0	0	0	0	0	0	0	0
626	1	1	1	1	1	1	1	1
627	0	0	0	0	0	0	0	0
628	0	0	0	0	0	0	0	0
629	0	0	0	0	0	0	0	0
630	0	0	0	0	0	0	0	0
631	0	0	0	0	0	0	0	0
632	0	0	1	0	1	0	1	1
633	1	0	1	0	1	0	1	1
634	0	0	0	0	0	0	0	0
635	0	0	0	0	0	0	0	0
636	0	0	0	0	0	0	0	0
637	0	0	0	0	0	0	1	0
638	0	0	0	0	0	0	0	0
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643	0	0	0	0	0	0	0	0
644	0	0	0	0	0	0	0	0
645	0	0	0	0	0	0	0	0
646	1	2	2	1	2	2	2	2
647	1	1	1	1	1	1	1	1
648	1	1	1	1	1	1	2	1
649	1	1	1	1	1	1	2	2
650	0	0	0	0	0	0	0	0
651	1	1	1	1	1	1	1	1
652	0	0	0	0	0	0	0	0

9.8 Appendix H – Public Transport Demand by Bus and Rail Line

Public Transport Demand by Bus and Rail Line - AM Peak Period				
Line	Bus/Rail	2044 Without LP	2044 With LP	%Diff
b100I	Bus	238	598	151%
b100O	Bus	256	504	97%
b11I	Bus	33	112	239%
b11O	Bus	39	108	177%
b200I	Bus	43	224	421%
b200O	Bus	25	157	528%
b22I	Bus	123	162	32%
b22O	Bus	180	267	48%
b25I	Bus	70	106	51%
b269I	Bus	92	129	40%
b269O	Bus	548	581	6%
b32I	Bus	6	10	67%
b33L	Bus	153	163	7%
b347L	Bus	389	445	14%
b370I	Bus	524	810	55%
b370O	Bus	504	929	84%
b372I	Bus	132	166	26%
b372O	Bus	185	277	50%
b374I	Bus	29	35	21%
b374O	Bus	31	41	32%
b44I	Bus	155	241	55%
b44O	Bus	112	159	42%
b51I	Bus	42	57	36%
b51O	Bus	26	39	50%
b565L	Bus	1527	2634	72%
b66I	Bus	93	138	48%
b66O	Bus	131	154	18%
b73AI	Bus	104	127	22%
b73AO	Bus	91	125	37%
b73I	Bus	135	165	22%
b73O	Bus	100	141	41%
b83I	Bus	65	82	26%
b83O	Bus	35	51	46%
b88I	Bus	39	75	92%
b88O	Bus	16	21	31%
b99I	Bus	0	0	0%
b99O	Bus	1	1	0%
bX80I	Bus	108	148	37%
bX80O	Bus	113	114	1%
bZ1I	Bus	52	82	58%
bZ1O	Bus	38	49	29%
bZ2I	Bus	0	0	0%
bZ2O	Bus	0	0	0%
bZ4I	Bus	16	48	200%

bZ40	Bus	9	25	178%
rGra1_1	Rail	26	26	0%
rGra2_1	Rail	56	62	11%
rGra3_1	Rail	166	186	12%
rGra5_2	Rail	1214	1493	23%
rLai1_1	Rail	27	27	0%
rLai1_2	Rail	540	797	48%
rLei1_2	Rail	544	619	14%
rPts1_1	Rail	99	135	36%
rPts2_1	Rail	140	209	49%
rPts2_2	Rail	1024	1629	59%
rShb1_1	Rail	1380	1691	23%
rShb1_2	Rail	3717	4154	12%
rShb2_1	Rail	444	532	20%
rShb2_2	Rail	1888	1920	2%
rStc1_1	Rail	401	431	7%
rStc1_2	Rail	712	802	13%
rStc2_1	Rail	232	300	29%
rStc2_2	Rail	310	417	35%

Public Transport Demand by Bus and Rail Line - IP Period				
Line	Bus/Rail	2044 Without LP	2044 With LP	%Diff
b100I	Bus	192	239	24%
b100O	Bus	216	299	38%
b11I	Bus	29	38	31%
b11O	Bus	29	44	52%
b200I	Bus	33	42	27%
b200O	Bus	22	30	36%
b22I	Bus	148	166	12%
b22O	Bus	143	176	23%
b265I	Bus	105	129	23%
b265O	Bus	20	31	55%
b269I	Bus	62	70	13%
b269O	Bus	179	183	2%
b33L	Bus	89	90	1%
b347L	Bus	149	155	4%
b370I	Bus	382	452	18%
b370O	Bus	405	485	20%
b372I	Bus	135	144	7%
b372O	Bus	158	168	6%
b374I	Bus	22	28	27%
b374O	Bus	27	33	22%
b44I	Bus	97	98	1%
b44O	Bus	171	157	-8%
b565L	Bus	684	750	10%
b66I	Bus	80	84	5%
b66O	Bus	105	112	7%

b73AI	Bus	83	94	13%
b73AO	Bus	100	105	5%
b73I	Bus	77	86	12%
b73O	Bus	80	85	6%
b83I	Bus	50	60	20%
b83O	Bus	48	50	4%
b88AI	Bus	12	13	8%
b88AO	Bus	10	12	20%
b88I	Bus	7	7	0%
b88O	Bus	6	6	0%
b99I	Bus	2	3	50%
b99O	Bus	7	8	14%
bX80I	Bus	83	83	0%
bX80O	Bus	112	121	8%
rGra3_1	Rail	367	355	-3%
rGra6_2	Rail	239	240	0%
rShb1_1	Rail	2093	2130	2%
rShb1_2	Rail	1631	1666	2%
rStc2_1	Rail	683	710	4%
rStc2_2	Rail	1052	1069	2%

Public Transport Demand by Bus and Rail Line - PM Peak Period				
Line	Bus/Rail	2044 Without LP	2044 With LP	%Diff
b100I	Bus	193	510	164%
b100O	Bus	279	1180	323%
b11I	Bus	25	62	148%
b11O	Bus	31	100	223%
b200I	Bus	25	85	240%
b200O	Bus	32	250	681%
b22I	Bus	73	120	64%
b22O	Bus	43	66	53%
b25O	Bus	129	199	54%
b269I	Bus	69	103	49%
b269O	Bus	189	204	8%
b32O	Bus	3	6	100%
b33L	Bus	124	146	18%
b347L	Bus	242	293	21%
b370I	Bus	519	1137	119%
b370O	Bus	694	1271	83%
b372I	Bus	180	279	55%
b372O	Bus	187	298	59%
b374I	Bus	25	74	196%
b374O	Bus	32	73	128%
b44I	Bus	76	130	71%
b44O	Bus	168	275	64%
b51I	Bus	48	85	77%
b51O	Bus	33	84	155%

b565L	Bus	1901	2001	5%
b66I	Bus	99	128	29%
b66O	Bus	140	245	75%
b73AI	Bus	96	184	92%
b73AO	Bus	130	164	26%
b73I	Bus	90	175	94%
b73O	Bus	100	134	34%
b83I	Bus	63	113	79%
b83O	Bus	54	86	59%
b88I	Bus	28	40	43%
b88O	Bus	27	52	93%
b99I	Bus	3	4	33%
b99O	Bus	9	9	0%
bX80I	Bus	105	106	1%
bX80O	Bus	120	195	63%
bZ1I	Bus	105	139	32%
bZ1O	Bus	126	264	110%
bZ2I	Bus	12	12	0%
bZ2O	Bus	38	58	53%
bZ4I	Bus	38	92	142%
bZ4O	Bus	58	154	166%
rGra3_1	Rail	323	576	78%
rGra4_1	Rail	552	867	57%
rGra5_2	Rail	414	415	0%
rLei1_2	Rail	82	101	23%
rPits3_1	Rail	388	569	47%
rPits3_2	Rail	279	349	25%
rPts2_1	Rail	811	1445	78%
rPts2_2	Rail	429	549	28%
rShb1_1	Rail	7493	8619	15%
rShb1_2	Rail	2138	2547	19%
rShb2_1	Rail	1034	1195	16%
rShb4_1	Rail	153	251	64%
rStc1_1	Rail	476	506	6%
rStc1_2	Rail	303	356	17%

Public Transport Demand by Bus and Rail Line - SAT Peak Period

Line	Bus/Rail	2044 Without LP	2044 With LP	%Diff
b100I	Bus	126	173	37%
b100O	Bus	152	204	34%
b200I	Bus	33	47	42%
b200O	Bus	32	47	47%
b22I	Bus	89	98	10%
b22O	Bus	102	124	22%
b269I	Bus	37	44	19%
b269O	Bus	113	116	3%

b33L	Bus	20	20	0%
b347L	Bus	60	64	7%
b370I	Bus	450	523	16%
b370O	Bus	427	552	29%
b372I	Bus	104	116	12%
b372O	Bus	179	178	-1%
b374I	Bus	12	15	25%
b374O	Bus	17	20	18%
b44I	Bus	88	91	3%
b44O	Bus	175	161	-8%
b565L	Bus	511	539	5%
b66I	Bus	67	71	6%
b66O	Bus	94	100	6%
b73AI	Bus	94	104	11%
b73AO	Bus	102	107	5%
b73I	Bus	89	97	9%
b73O	Bus	87	91	5%
b83I	Bus	56	61	9%
b83O	Bus	62	64	3%
b88I	Bus	2	2	0%
b88O	Bus	3	4	33%
b99I	Bus	0	1	0%
b99O	Bus	3	3	0%
bX80I	Bus	78	78	0%
bX80O	Bus	120	133	11%
bZ1I	Bus	44	50	14%
bZ1O	Bus	35	40	14%
bZ2I	Bus	51	53	4%
bZ2O	Bus	0	0	0%
bZ4I	Bus	16	23	44%
bZ4O	Bus	14	15	7%
rGra2_1	Rail	788	777	-1%
rShb1_1	Rail	1641	1684	3%
rShb1_2	Rail	1331	1379	4%
rShb3_1	Rail	1241	1275	3%
rShb3_2	Rail	1621	1646	2%
rShb5_1	Rail	794	799	1%
rShb5_2	Rail	958	961	0%