



**Dartford Local Plan**  
**Strategic transport modelling**  
**Stage 2a – Forecast year baseline model**

On behalf of

**DARTFORD**  
BOROUGH COUNCIL

Project Ref: 46416/5501 | Rev: AA | Date: February 2021

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## Document Control Sheet

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Revision	Date	Description	Prepared	Reviewed	Approved

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# 1 Introduction

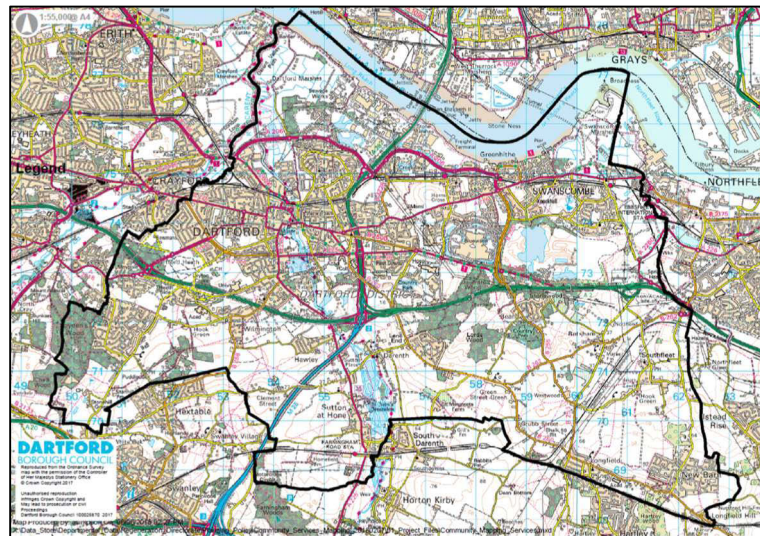
1.1.1 Stantec have been appointed by Dartford Borough Council (DBC) to provide strategic modelling evidence in support of their emerging Local Plan.

## 1.2 Existing Local Plan

1.2.1 The current Dartford Local Plan comprises the Core Strategy 2011 and the Development Policies Plan 2017. The Core Strategy plans for approximately a 45% growth in households in the Borough (17,300 homes 2006 to 2026).

1.2.2 In 2018, the Council carried out a review of progress in achieving the policies contained in the Core Strategy which confirmed that the regeneration proposed has been taking place.

1.2.3 Core Strategy plans are materialising. Housing completions since 2015/16 in particular have been high in Dartford.



## 1.3 Local Plan review

1.3.1 The Council is carrying out a review of its Local Plan, with a time horizon for the Local Plan of 2036.

1.3.2 On current information, DBC consider that the existing permissions and identified sites will be capable of delivering the new homes required to meet local housing need.

1.3.3 On this basis, considerations for the new Local Plan are likely to relate to the intensity of development at these locations, rather than identifying alternative spatial locations. This means the Green Belt is expected to be maintained, with DBC advising there are no plans for strategic release for new housing.

1.3.4 DBC have been provided with the Dartford Cordon of the Lower Thames Area Model (DCLTAM) by Highways England (HE). The DCLTAM provided by HE is the supplementary consultation (April 2020) version. This model will underpin the Lower Thames Crossing DCO submission by HE, and forms a key component of the DBC Local Plan review completed.

1.3.5 Stantec's remit is to review and update the DCLTAM to create a base year model and forecast year models for Local Plan option testing.

## 1.4 Study objectives

1.4.1 The outputs from the technical work undertaken by Stantec have been, and will continue to be, derived following consultations with the two highways authorities; Kent County Council (KCC) and Highways England (HE). This has been based upon a number of meetings with the two authorities and DBC and EDC.

1.4.2 From the commissioning brief, the purpose of the technical work produced by Stantec is:

*“primarily to ensure new Local Plan policies are informed by robust evidence and option testing; that also supports development of a local strategy for sustainable transport, and; the identification of future transport infrastructure and appropriate mitigation measures by development. “*

- 1.4.3 It is intended that the evidence base will enable DBC to compare different Local Plan options relative to each other, with respect to their demand on the transport network.
- 1.4.4 The evidence base developed therefore will inform the preferred strategic option for development in the Borough, having regard to the capacity of transport infrastructure, existing and planned.
- 1.4.5 The modelling exercise was undertaken in this context and is thus a different approach in places than may be used for a highway scheme appraisal for example.

## 1.5 Scope of this document

- 1.5.1 The purpose of this document is to detail the technical work completed during Stage 2 of Stantec’s appointment as follows :
- Develop 2036 baseline trip matrices for a “no Local Plan” scenario based upon the DCLTAM model.
  - Include any sites that DBC advise should be included explicitly.
  - Review growth of trips from base year against that contained within TEMPro.
  - Allow for committed highway schemes as advised by the local authorities.
  - Assign 2036 morning and evening peak hour baseline models with and without the Lower Thames Crossing included.
- 1.5.2 Hence, the forecast modelling described within this report represents a 2036 baseline scenario based upon the DCLTAM model. This 2036 baseline scenario will be used to develop a 2036 Reference Case scenario against which to compare the updated Local Plan scenario testing. The Reference Case will, in effect, represent the current Dartford Local Plan. Developing the Reference Case Model is detailed within a separate Stantec report as Stage 2b of Stantec’s appointment.

## 1.6 Document structure

- 1.6.1 This document follows the structure summarised below :
- Section 2 summarises the engagement completed with the local authorities in developing the model approach.
  - Section 3 describes the derivation of the 2036 baseline matrices.
  - Section 4 describes the derivation of the 2036 baseline highway networks.
  - Section 5 summarises the model assignment and output.
  - Section 6 provides a report summary.

## 2 Engagement with local authorities

- 2.1.1 In developing a model for the purposes of Local Plan assessment it is important to engage with the highway authorities.
- 2.1.2 There has been extensive ongoing liaison between north Kent councils and the highway authorities. For example, immediately preceding the Stantec commission, Dartford hosted a Local Plan Transport Evidence discussion between the EDC, KCC, and Gravesham and Sevenoaks councils, with Bexley invited (16th April 2019). This was followed by a HE-Dartford Liaison Meeting with KCC, and Highway England/ Atkins, with EDC invited (15th May 2019).
- 2.1.3 On this basis an early meeting was convened to discuss the scope and methodology of modelling assessment proposed and to obtain buy-in from the appropriate officers.

### 2.2 Inception meeting

- 2.2.1 A meeting was held on 2<sup>nd</sup> August 2019 attended by :
- Dartford Borough Council
  - Stantec UK (formerly Peter Brett Associates LLP)
  - Ebbsfleet Development Corporation
  - Kent County Council (H&T – Highways and Transportation)
  - Highways England (Lower Thames Crossing team).
- 2.2.2 This meeting allowed a technical discussion between the various parties to agree the scope and methodology of assessment. With respect to the forecasting process, the main points agreed at the meeting were:
- Stantec understands that the HE forecast matrices have appropriate growth to account for the current local plan. At the meeting HE discussed their use of HEIDI in their forecast model to constrain growth to nationally approved forecasts.
  - The statutory consultation model Uncertainty Log that underpins the growth was shared (post-meeting) by HE with all parties. This has since been superseded by an updated Uncertainty Log for the supplementary consultation model.
- 2.2.3 A second meeting was held on 4th October 2019. In this meeting the HE presence was the development control team, rather than the LTC team.
- 2.2.4 This meeting gave an update of the work since the August meeting, and also revisited some of the discussion that was previously undertaken.
- 2.2.5 Since that time, further meetings have been held, and further information has been provided to both KCC and HE, as the highway authorities, with respect to the base year modelling, forecast year baseline modelling and intended approach to the Local Plan option testing.
- 2.2.6 In summary, agreement has been reached that the 2036 baseline modelling described within this report is appropriate for carrying forward to the Local Plan modelling and option testing.

### 2.3 Model data provided

- 2.3.1 HE provided the following forecast models.

- 2027 without and with LTC
- 2032 without and with LTC
- 2042 without and with LTC
- 2051 without and with LTC

2.3.2 The LTAM Uncertainty Log was also provided by HE. It is noted that Dartford Borough Council contributed input data to the Uncertainty Log at the time this was requested by HE during their development of the LTAM. The data provided by Dartford Borough Council was based upon developments with planning consents, planning applications and Local Plan forecasts at that time.

2.3.3 The DCLTAM data has been assumed to be a reasonable basis for representing baseline scenarios for the forecast years modelled. These baseline models have been further refined to represent appropriate Reference Case models, for the purpose of Local Plan option testing, and this is detailed within a separate Stantec report as Stage 2b of Stantec's appointment.



### 3 Baseline matrices

3.1.1 The following section describes the process adopted in developing the highway trip matrices for the 2036 baseline scenarios.

#### 3.2 Interpolation from DCLTAM

3.2.1 The development of a “2036 without local plan” baseline model has been based upon the development assumptions within the DCLTAM 2032 and DCLTAM 2042 matrices provided by HE. These DCLTAM matrices include the existing local plan assumptions and permitted developments, based upon the information available to HE at the time of their building the LTAM model.

3.2.2 The matrix totals from the DCLTAM matrices provided by HE are summarised below. These have been changed to 3 user classes as detailed in the Base Model reporting.

Scenario	Matrix total (PCUs)		% change from 2016 base year	
	AM	PM	AM	PM
Base year (2016)	105,221	114,240		
2032 – without LTC	136,179	150,198	29%	31%
2032 – with LTC	138,713	152,886	32%	34%
2042 – without LTC	144,913	159,029	38%	39%
2042 – with LTC	147,801	162,274	40%	42%

Table 1 : DCLTAM matrix totals

3.2.3 It is noted that :

- The 2032 scenarios represent an approximately 30% growth in traffic when compared to the 2016 base year, and around 40% growth by 2042.
- There are also differences of around 2% to 3% in the trip matrix totals when comparing the “with” and “without” LTC scheme for the same forecast year.
- The higher PM totals are also noted and are as expected on the basis that the AM peak hour modelled in DCLTAM is 0700-0800, rather than the assessed (Local Plan) 0800-0900. This expectation derives from considering that, although the SRN is busier in the earlier AM hour, the urban areas will be quieter.

3.2.4 An initial 2036 baseline matrix (AM and PM) was created by interpolating between the DCLTAM 2032 and DCLTAM 2042 matrices for both the with LTC and without LTC scenarios.

3.2.5 The difference between the initial 2036 matrix and the DCLTAM 2016 matrices (20 years of growth) was pro-rated to represent 17 years of growth. The 17 years of growth was added to the derived 2019 base year matrices (described in the Stage 1 report) to represent final 2036 baseline matrices. Hence, the formula used was  $(\text{initial 2036} - 2016) \times 17/20 + 2019 = \text{final 2036}$ .

- 3.2.6 The forecast matrices have three additional zones when compared to the base year matrices. It is understood that these have been included by HE in the LTAM to allow more specific loading of certain developments. The base year matrix was harmonised with these additional zones so that the uplift between 2019 and 2036 could be added directly.
- 3.2.7 The AM uplift was used directly for the LTAM model, with the 0800-0900 uplift assumed to be broadly equal to the 0700-0800 uplift.
- 3.2.8 In effect, the above process creates a 2036 matrix that takes account of the 2019 base year matrix described within the Stage 1 report, including its adjustment to a 0800-0900 morning peak hour from the provided 0700-0800 DCLTAM.
- 3.2.9 The table below provides a summary of the matrix totals for the 2019 base year and 2036 baseline matrices (all for the reduced cordon area). These are the 2036 baseline matrices that have been taken forward for developing the 2036 Reference Case and 2036 Local Plan scenario matrices.

Scenario	Matrix total (PCUs)		% change from 2019 base year	
	AM	PM	AM	PM
<b>Base year (2019)</b>	63,241	62,530		
<b>2036 – without LTC</b>	79,464	81,726	26%	31%
<b>2036 – with LTC</b>	82,570	85,445	31%	37%

Table 2 : Matrix totals (cordon) for 2019 and 2036

- 3.2.10 It is noted that the derived 2036 baseline matrices represent an approximately 26% to 37% growth in traffic when compared to the 2019 base year matrices. The PM is still higher than the AM (0800-0900) but by a reduced percentage. The overall lower matrix totals reflect the reduced cordon area adopted for assessment (eg M20 removed from geographical assessment area).

### 3.3 Development sites

- 3.3.1 The matrix totals described above reflect both the information in the uncertainty log and the general background growth, using both TEMPRO and RTF as applicable.
- 3.3.2 HE also provided the plan, and accompanying spreadsheet, shown by the figure below which illustrates the zones where uncertainty log development trips are loaded.

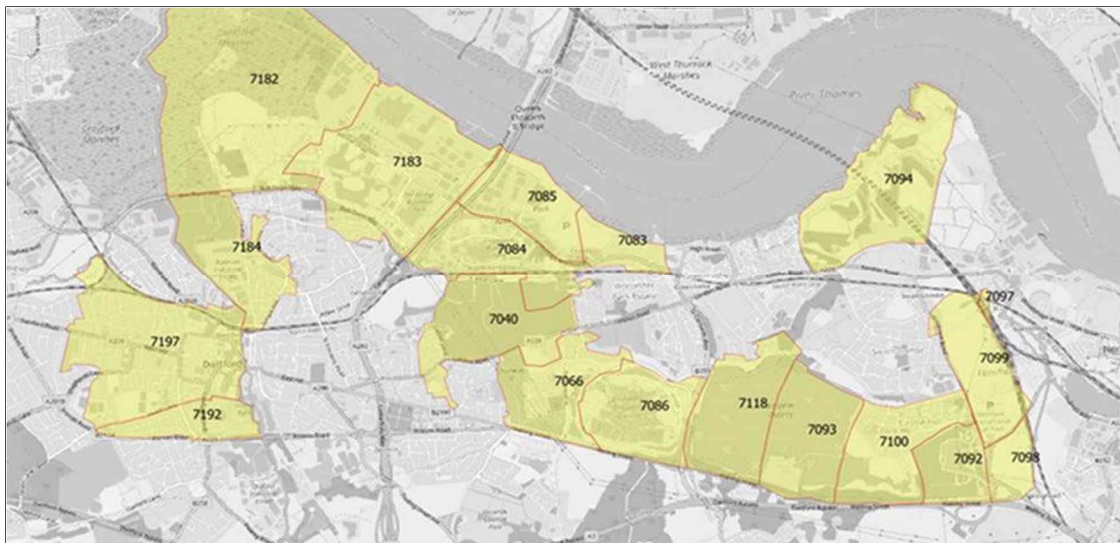


Figure 1 Zones used to load listed developments

- 3.3.3 Highways England have provided the Uncertainty Log for LTAM detailing the residential units and sqm of commercial / employment space included within the LTAM.
- 3.3.4 For Dartford Borough these numbers are stable from 2032 to 2051 and are 14,131 dwellings and 967,827sqm. This data is summarised below and included as Appendix A.

Site	Units	2027	2032	2042	2051
The Bridge	Res units	450	450	450	450
	Sq.m	91000	91000	91000	91000
Littlebrook Power Station (Phase 1)	Res units	0	0	0	0
	Sq.m	41800	41800	41800	41800
Littlebrook Power Station (Phase 2 and 3)	Res units	0	0	0	0
	Sq.m	120000	120000	120000	120000
Dartford Town Centre/Northern Gateway/GSK	Res units	1740	1740	1740	1740
	Sq.m	33100	33100	33100	33100
Lowfield St	Res units	620	690	690	690
	Sq.m	0	0	0	0
Crossways	Res units	0	0	0	0
	Sq.m	102000	102000	102000	102000
Stone	Res units	200	200	200	200
	Sq.m	0	0	0	0

St James Lane Pit	Res units	850	850	850	850
	Sq.m	0	0	0	0
Bluewater	Res units	0	0	0	0
	Sq.m	30500	30500	30500	30500
Eastern Quarry	Res units	2650	6130	6130	6130
	Sq.m	123600	231000	231000	231000
Northfleet West Substation/Ebbsfleet Green	Res units	950	950	950	950
	Sq.m	7847.5	8017	8017	8017
Ebbsfleet - Station Quarter North	Res units	450	931	931	931
	Sq.m	142141	222880	222880	222880
Ebbsfleet - Station Quarter South	Res units	800	1390	1390	1390
	Sq.m	51138	85230	85230	85230
Swanscombe Peninsula (includes Croxton Garry)	Res units	800	800	800	800
	Sq.m	2300	2300	2300	2300

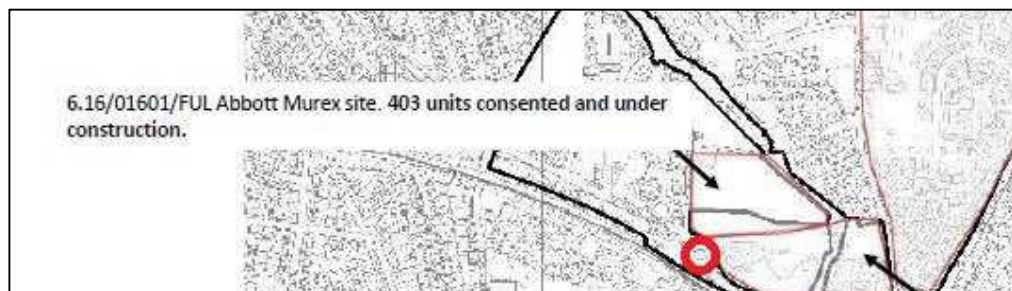
Table 3 : Summary of Uncertainty log

3.3.5 The LTAM origin-destination distribution used, for these development zones, has been assumed as appropriate on the basis that use of the LTAM for DBC forecasting purpose has been agreed with highway officers.

### 3.4 Zone connector changes

3.4.1 Whilst the 2036 baseline quantum has not been adjusted, the zone loading used by HE has been refined to be more commensurate with expected loading on the local highway network. The adjustments undertaken are –

- To add an additional zone to reflect the new link (William Mundy Way) joining the A2026 / Mill Pond Rd roundabout



- To move the zone reflecting traffic leaving the Swanscombe Peninsula via Manor Way

### 3.5 Through traffic

3.5.1 Through traffic has been taken from the DCLTAM model with no specific or additional adjustments made.

### 3.6 Growth comparisons

3.6.1 The growth contained in TEMPRO (planning data) of 10,000 houses is lower than that provided by the uncertainty log (14,131 houses).

3.6.2 The uncertainty log has been assumed to be more up-to-date on the basis that this has been more recently provided to HE by the Local Planning Authority.

Area Description	Name	HHs	Jobs
Authority	Dartford	10,267	3,568

Table 4 : TEMPRO 7.2 Planning data for Dartford (growth from 2019 to 2036)

## 4 Highway network

4.1.1 The following section summarises the highway network contained within the 2036 forecast baseline model.

### 4.2 Networks provided

4.2.1 The highway networks used were the provided DCLTAM forecast networks provided by HE. Two principal networks have been provided, one representing the “with” LTC crossing scenario and one “without” the LTC crossing.

### 4.3 Committed schemes

4.3.1 The DCLTAM forecast year networks include the schemes defined in the Uncertainty Log provided by HE (see Appendix A). As an example, the schemes on the A2 given in the Uncertainty log are shown below.

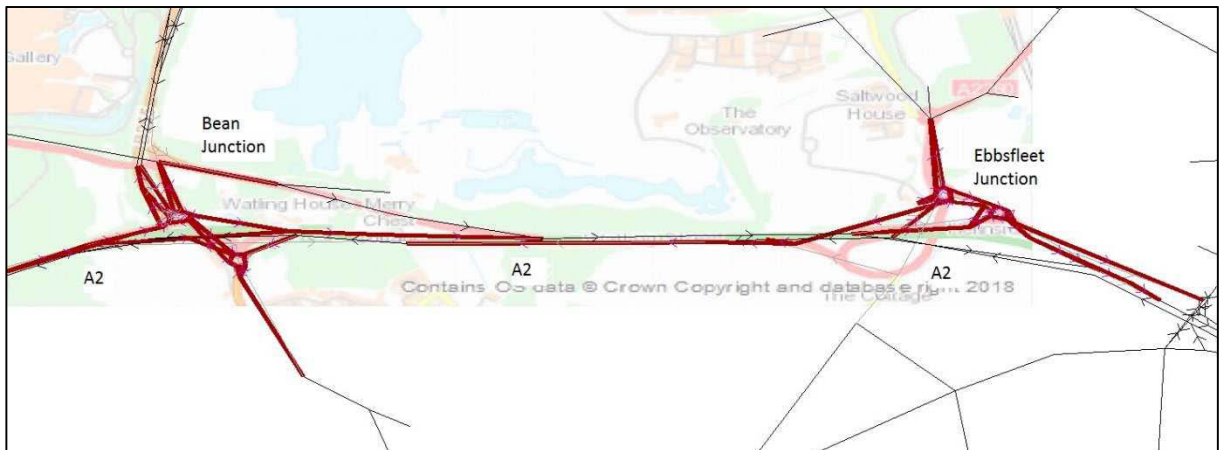


Figure 2 A2 schemes included in the HE forecast network (red highlighting shows where the forecast SATURN network differs from the base SATURN network).

### 4.4 Highway network adjustments

4.4.1 The highway networks described above were updated to reflect the changes made in the 2019 base year highway network as described in the Stage 1 report.

4.4.2 Some further adjustments were made, both adding network details to be consistent with zoning changes (described in the Stage 1 report) and to reflect areas that required additional detail. For example :

- The A2026 / Mill Pond roundabout has now become a four-arm roundabout to represent the new zone loading defined above.
- The A226 / Manor Way junction is now coded as a four-arm junction. It is noted that, in reality, it is already a four-arm junction. However, the Manor Way arm is currently relatively lightly-trafficked, with the link feeding an empty zone in the provided HE information.

4.4.3 Dartford Town Centre Improvements. It was agreed that the nature of this scheme did not merit being included in a strategic model.

- 4.4.4 It is noted that a forecast Eastern Quarry and Ebbsfleet Valley network has now been included in LTAM and this network has been retained within the DCLTAM model provided. It is noted that the Eastern Quarry network does not have Alkerden Lane as a vehicular access.
- 4.4.5 Similarly, the recently completed and opened Springhead Bridge has also now been coded into the LTAM forecast network, and this coding has also been retained. This infrastructure was opened post the base year of 2019.

## 5 Model assignment and output

- 5.1.1 The 2036 baseline network and matrices described in previous sections have been assigned to produce a 2036 forecast baseline assignment. This has been completed for the “with” and “without” LTC scheme. Both morning and evening peak hours have been assigned. Model outputs from these models are included at Appendix B.
- 5.1.2 Appendix C provides an assignment comparison between the 2019 base year and 2036 baseline scenarios. Appendix C compares the same set of links that were reviewed within the Stage 1 report (Appendix C) where pre and post matrix estimation flows were compared.
- 5.1.3 It is intended that the 2036 baseline scenarios will be adopted to derive a 2036 Reference Case model and 2036 Local Plan model(s). The Local Plan model(s) will then be compared to the Reference Case model to determine the effect of the Local Plan option(s).

### 5.2 Node throughput

- 5.2.1 A convenient, and understandable, primary comparison output is the node (junction) throughput for a selection of nodes (junctions) across the borough. Appendix D contains the numerical node throughput plus additional statistics for reference.
- 5.2.2 This comparison output will initially be at the absolute level, namely direct SATURN output, showing the number of vehicles or PCUs passing through a node / junction. However, going forward, analysis can be undertaken by adding the difference between SATURN models to an observed base (at the relevant node, link or turn level).

#### River Crossing

- 5.2.3 The differences between the without and with LTC models have not been explicitly analysed at this time. The two scenarios are taken at face value and the differences are the subject of the LTAM modelling by HE. However, a basic display of the river crossing flows is presented.

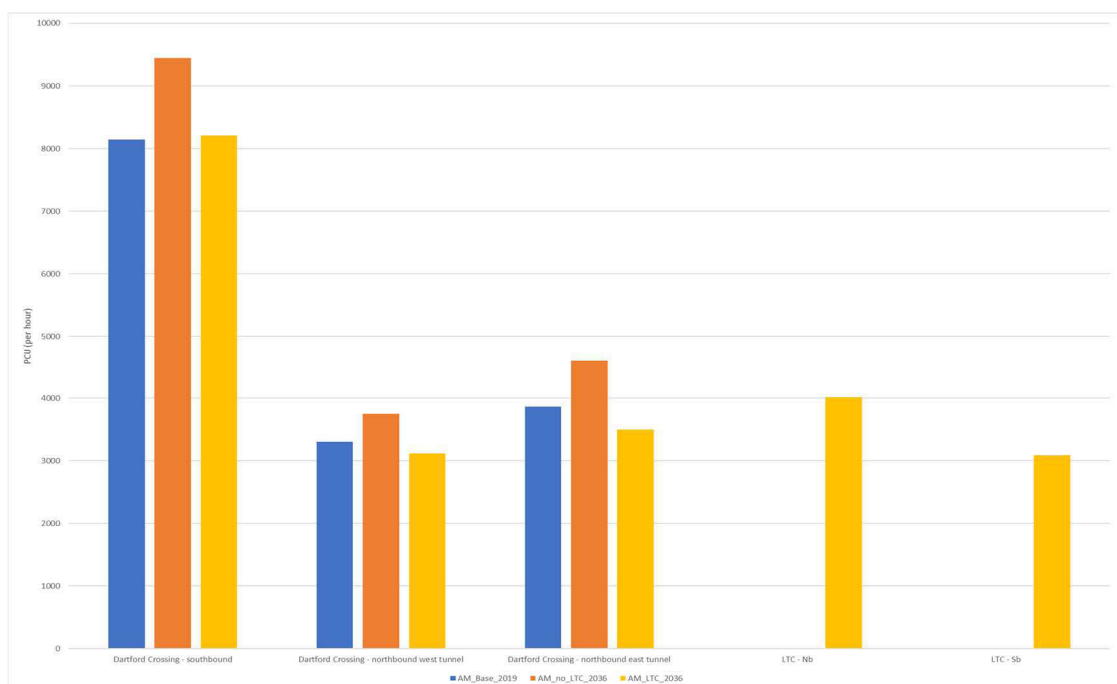


Figure 3 River Crossing flows (AM)



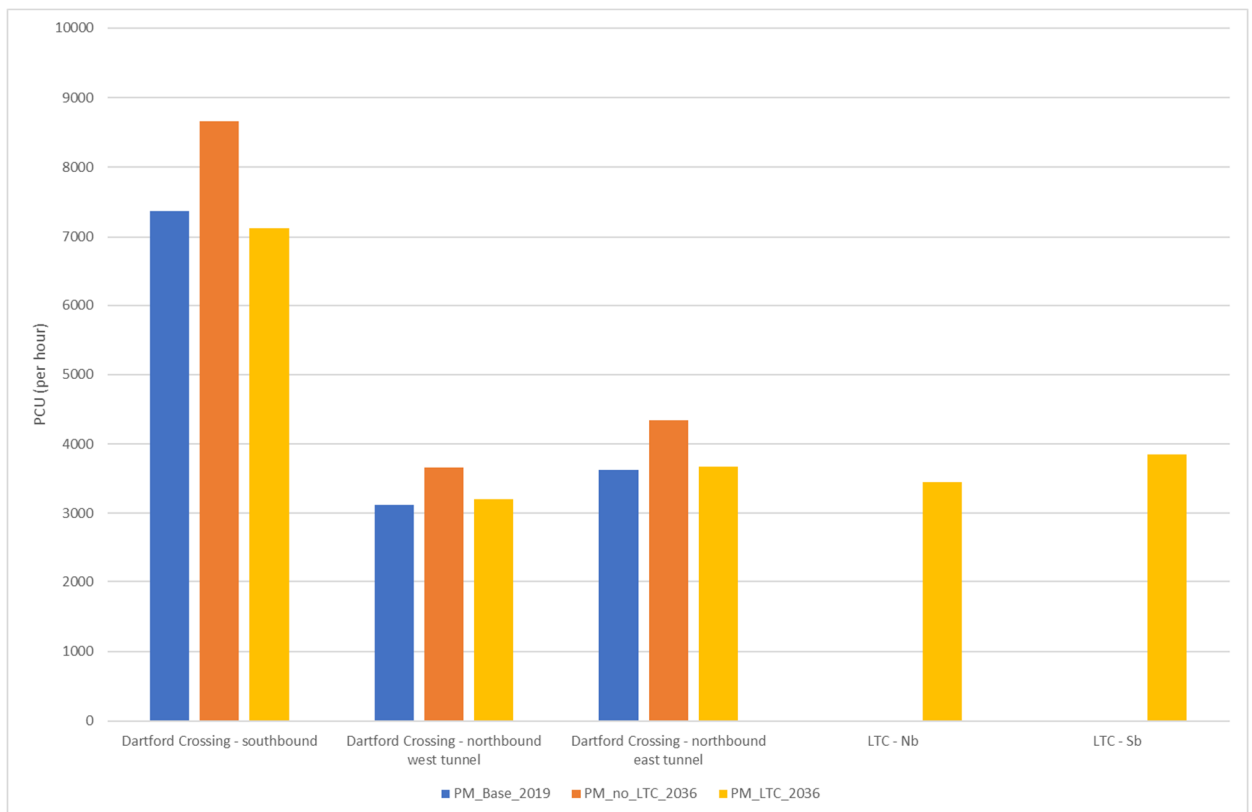


Figure 4 River Crossing flows (PM)

### Urban Area

5.2.4 For the urban area, the graphs shown below display the node throughput, for 2019 base year and 2036 baseline, for the following nodes :

- A2260 / B259 roundabout
- A206 Crossways at Anchor Boulevard
- B255 Bluewater roundabout / Eastern Quarry (EQ) access
- A226 / A206 / B255 roundabout
- A296 into EQ
- Alkerden Lane
- The Brent (A226/B2500) roundabout
- Darenth Valley roundabout on A296
- A2026 Victoria Rd/Mill Pond Rd roundabout
- A225 / B2174 lights
- A206 / A2026 roundabout
- B259 Whitecliffe Drive (EQ access)
- Springhead Bridge

5.2.5 These nodes give a good coverage across the urban network in the Borough.

5.2.6 The expected growth between 2019 and 2036 is clearly evident. There is also, as would be expected for these nodes, minimal to modest variation between the without and with LTC scenarios.

5.2.7 In addition, the nodes near Eastern Quarry reflect the growth in that area.

5.2.8 Some node throughput was also considered over the Gravesham border. This output showed the growth in Ebbsfleet / Springhead reflected, and some reassignment due to the A2 junction improvements at Bean and Ebbsfleet.

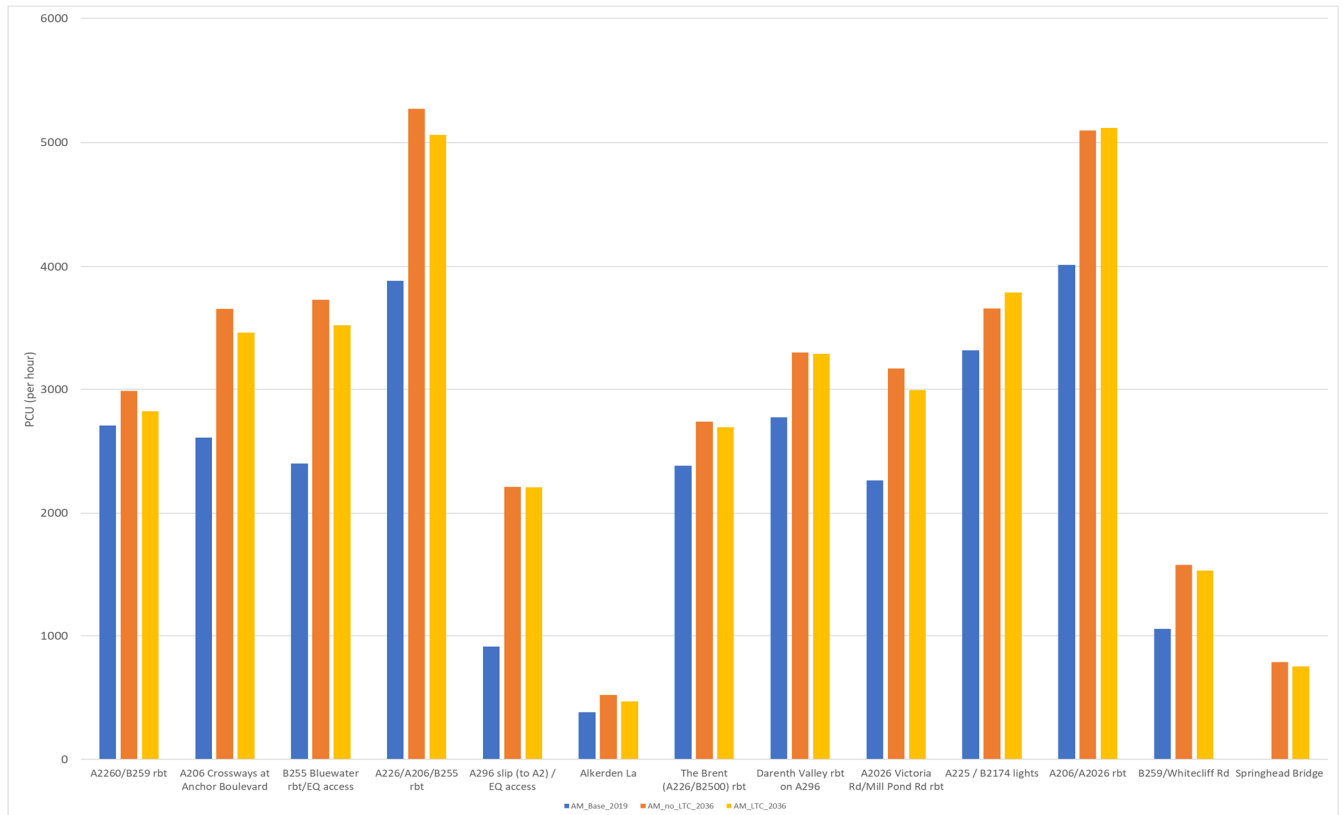


Figure 5 AM flow information (Urban network)

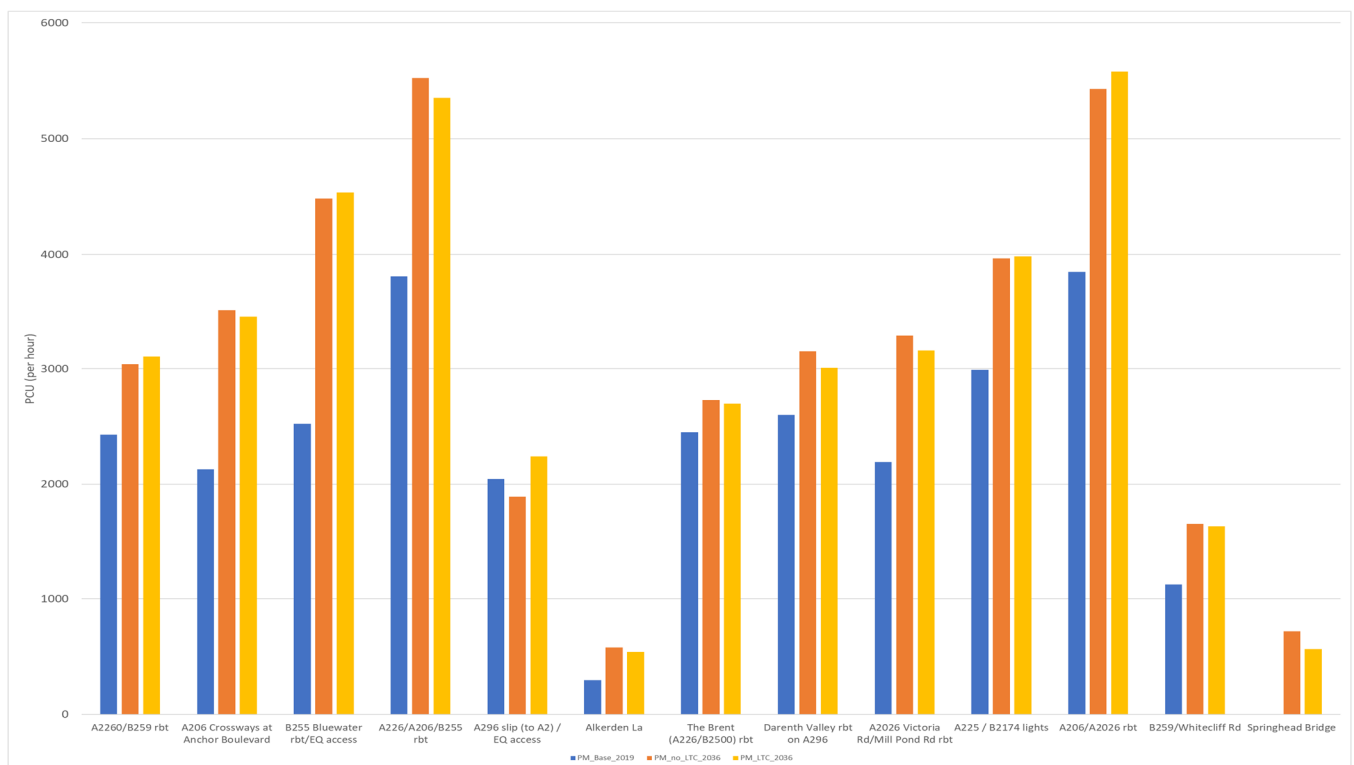


Figure 6 PM flow information (Urban network)

- 5.2.9 The flows shown are the absolute flow information from SATURN, noting any detailed analysis work could use the uplift from the models (2036 minus 2019) and add to observed 2019 data.
- 5.2.10 In addition, these nodes also have their delay and v/c (volume/capacity) reported. Noting this reporting is only indicative and to the level of SATURN coding and software (i.e. not the same or necessarily as accurate as ARCADY, PICADY and LINSIG). Some examples are shown below.
- 5.2.11 It should also be noted that some (forecast) junctions are coded with unlimited capacity, reflecting the likely situation where a junction will be designed to accommodate the expected flow. This is particularly noted in the Eastern Quarry and Ebbsfleet Valley area and is not anticipated to unduly affect the model assignment.

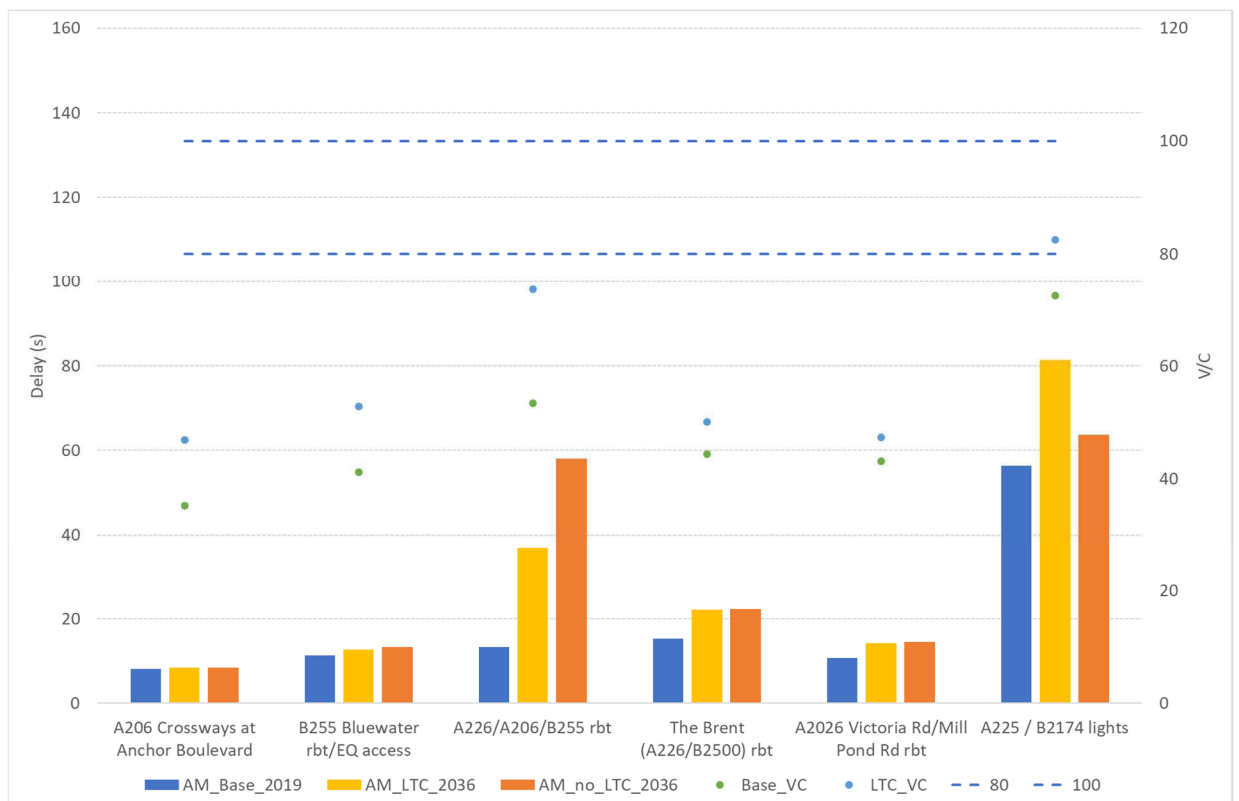


Figure 7 AM delay information (from SATURN)

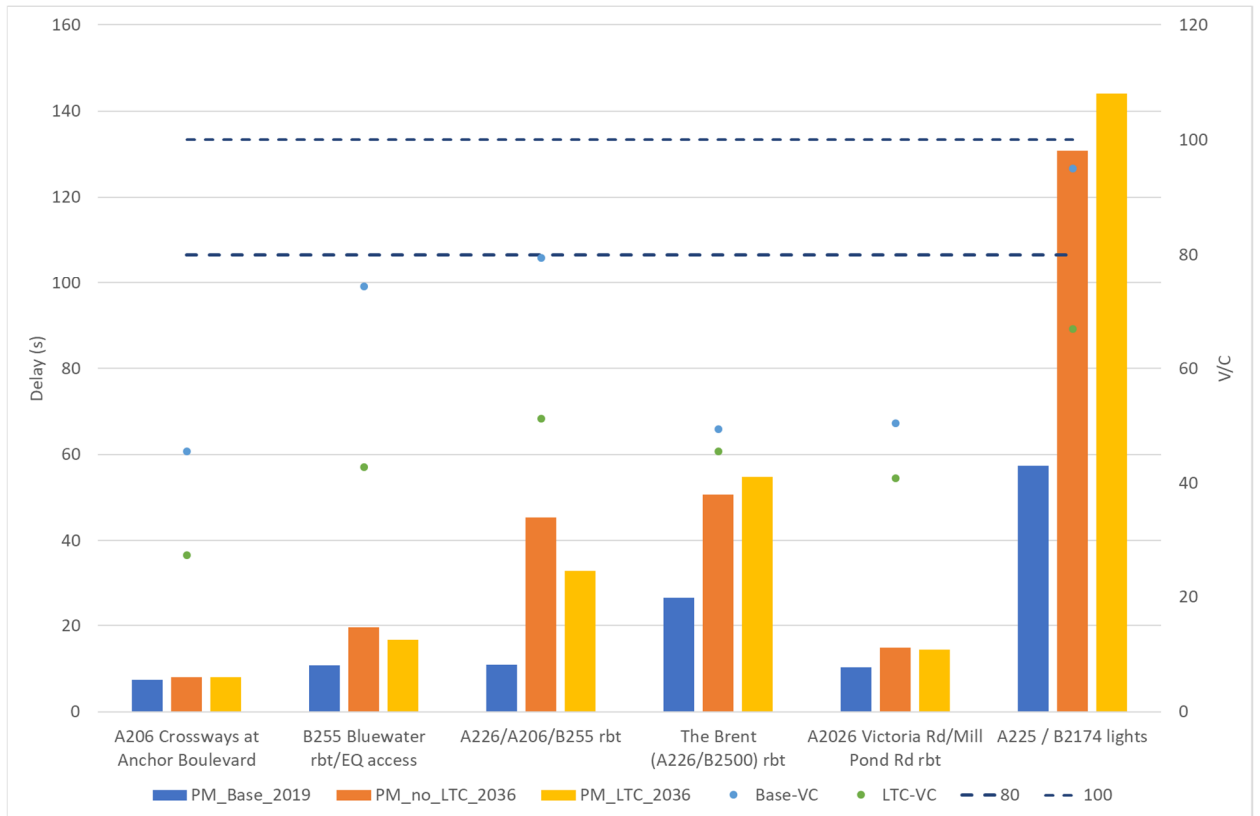


Figure 8 PM delay information (from SATURN)

## 6 Summary and next steps

### 6.1 2036 Baseline

- 6.1.1 The forecast modelling described within this report represents a 2036 baseline scenario based upon the DCLTAM model. This builds upon the 2019 base year model reported upon in the Stage 1 Stantec report.
- 6.1.2 The 2036 baseline scenario uses the HE model data provided and provides AM and PM peak hour models, each with and without the LTC assignments.
- 6.1.3 Flow information has been extracted from the models, accompanied with indicative delay information extracted from SATURN.

### 6.2 Next steps

- 6.2.1 The 2036 baseline scenario described within this report will be used as the basis for developing a 2036 Reference Case scenario against which to compare the Local Plan scenario testing. The development of the 2036 Reference Case will be detailed within a “Stage 2b – Forecast Year Reference Case” report.
- 6.2.2 The 2036 Reference Case will be based upon a land use schedule that has been updated and refined by DBC from the Uncertainty Log, which was used for the 2036 baseline scenario.
- 6.2.3 The 2036 Reference Case land use schedule will be combined with agreed trip generation rates to calculate the potential traffic generation from the 3046 Reference case land uses. Distribution of this traffic generation will be applied to create 2036 Reference Case trip matrices.
- 6.2.4 The 2036 Reference Case trip matrices will be combined with the 2036 baseline trip matrices described within this Stage 2a report. This combining will be either through addition or replacement of traffic within the 2036 baseline zones with traffic from the 2036 Reference Case zones.
- 6.2.5 On this basis, the 2036 baseline scenario matrices will be carried forward to the 2036 Reference Case (and 2036 Local Plan scenarios) but with an adjustment to the zones with either Reference Case development or Local Plan development.
- 6.2.6 The 2036 baseline scenario will therefore be built upon to create scenario models for testing of Local Plan proposals. Developing the 2036 Local Plan scenario model(s) will be completed in the same way as developing the 2036 Reference Case and will be detailed within a separate “Stage 3 – Local Plan option assessment” report.
- 6.2.7 It is intended that the 2036 Local Plan scenario testing will be compared to the 2036 Reference Case modelling. This will provide an assessment of the effects of traffic on the local and strategic highway network as a result of the Local Plan options assessed.

# Appendix A    Uncertainty Log

UL2019 Serial No.	Planning Authority	Development	Land Use Type	Development measure	Total Size	Planning Status	Uncertainty	Core				
								2027	2032	2042	2051	
118	Dartford	Dartford Town Centre	C3-Dwelling House	Res units	420	Planning Consent	Near Certain		420	420	420	420
119	Dartford	Northern Gateway	C3-Dwelling House	Res units	570	Planning Consent	Near Certain		570	570	570	570
120	Dartford	Dartford Town Centre and North	A2-Financial and Professional	Sq.m	8,600	Application Submitted	More Than Likely		8,600	8,600	8,600	8,600
121	Dartford	Northern Gateway East and Mill	C3-Dwelling House	Res units	750	Planning Consent	Near Certain		750	750	750	750
121	Dartford	Northern Gateway East and Mill	A1-Retail	Sq.m	1,500	Planning Consent	Near Certain		1,500	1,500	1,500	1,500
122	Dartford	Northern Gateway - GSK North	B2-Industry	Sq.m	23,000	Planning Consent	Near Certain		23,000	23,000	23,000	23,000
123	Dartford	Bluewater	A1-Retail	Sq.m	30,500	Planning Consent	Near Certain		30,500	30,500	30,500	30,500
124	Dartford	The Bridge	C3-Dwelling House	Res units	450	Planning Consent	Near Certain		450	450	450	450
124	Dartford	The Bridge	B1(c)-Light Industry (B1)	Sq.m	91,000	Planning Consent	Near Certain		91,000	91,000	91,000	91,000
125	Dartford	Ebbsfleet - Station Quarter North	C3-Dwelling House	Res units	931	Planning Consent	Near Certain		450	931	931	931
125	Dartford	Ebbsfleet - Station Quarter North	A3-Restaurants and cafes	Sq.m	12,000	Planning Consent	Near Certain		12,000	12,000	12,000	12,000
125	Dartford	Ebbsfleet - Station Quarter North	B1(a)-Business Office	Sq.m	182,657	Planning Consent	Near Certain		109,594	182,657	182,657	182,657
125	Dartford	Ebbsfleet - Station Quarter North	D1-Non-residential Industrial	Sq.m	2,000	Planning Consent	Near Certain		1,200	2,000	2,000	2,000
125	Dartford	Ebbsfleet - Station Quarter North	D2-Assembly and Leisure	Sq.m	17,191	Planning Consent	Near Certain		10,315	17,191	17,191	17,191
125	Dartford	Ebbsfleet - Station Quarter North	C1-Hotels	Sq.m	9,032	Planning Consent	Near Certain		9,032	9,032	9,032	9,032
126	Dartford	Ebbsfleet - Station Quarter South	C3-Dwelling House	Res units	1,390	Planning Consent	Near Certain		800	1,390	1,390	1,390
126	Dartford	Ebbsfleet - Station Quarter South	A3-Restaurants and cafes	Sq.m	3,500	Planning Consent	Near Certain		2,100	3,500	3,500	3,500
126	Dartford	Ebbsfleet - Station Quarter South	B1(a)-Business Office	Sq.m	61,035	Planning Consent	Near Certain		36,621	61,035	61,035	61,035
126	Dartford	Ebbsfleet - Station Quarter South	D1-Non-residential Industrial	Sq.m	2,500	Planning Consent	Near Certain		1,500	2,500	2,500	2,500
126	Dartford	Ebbsfleet - Station Quarter South	D2-Assembly and Leisure	Sq.m	18,195	Planning Consent	Near Certain		10,917	18,195	18,195	18,195
127	Dartford	Eastern Quarry	C3-Dwelling House	Res units	6,130	Planning Consent	Near Certain		2,650	6,130	6,130	6,130
127	Dartford	Eastern Quarry	A1-Retail	Sq.m	26,000	Planning Consent	Near Certain		15,600	26,000	26,000	26,000
127	Dartford	Eastern Quarry	B1(a)-Business Office	Sq.m	120,000	Planning Consent	Near Certain		60,000	120,000	120,000	120,000
127	Dartford	Eastern Quarry	D2-Assembly and Leisure	Sq.m	50,000	Planning Consent	Near Certain		25,000	50,000	50,000	50,000
127	Dartford	Eastern Quarry	D2-Assembly and Leisure	Sq.m	24,000	Planning Consent	Near Certain		12,000	24,000	24,000	24,000
127	Dartford	Eastern Quarry	C1-Hotels	Sq.m	11,000	Planning Consent	Near Certain		11,000	11,000	11,000	11,000
128	Dartford	Northfleet West Substation/Ebbsfleet	C3-Dwelling House	Res units	950	Planning Consent	Near Certain		950	950	950	950
128	Dartford	Northfleet West Substation/Ebbsfleet	C1-Hotels	Sq.m	5,000	Planning Consent	Near Certain		5,000	5,000	5,000	5,000
128	Dartford	Northfleet West Substation/Ebbsfleet	D1-Non-residential Industrial	Sq.m	1,758	Planning Consent	Near Certain		1,758	1,758	1,758	1,758
128	Dartford	Northfleet West Substation/Ebbsfleet	A1-Retail	Sq.m	339	Planning Consent	Near Certain		170	339	339	339
128	Dartford	Northfleet West Substation/Ebbsfleet	A3-Restaurants and cafes	Sq.m	920	Planning Consent	Near Certain		920	920	920	920
129	Dartford	St James Lane Pit	C3-Dwelling House	Res units	850	Planning Consent	Near Certain		850	850	850	850
130	Dartford	Stone	C3-Dwelling House	Res units	200	Planning Consent	Near Certain		200	200	200	200
131	Dartford	Crossways	B2-Industry	Sq.m	102,000	Planning Consent	Near Certain		102,000	102,000	102,000	102,000
132	Dartford	Lowfield St	C3-Dwelling House	Res units	690	Planning Consent	Near Certain		620	690	690	690
133	Dartford	Littlebrook Power Station (Phase 1)	B8-Storage & Distribution	Sq.m	41,800	Planning Consent	Near Certain		41,800	41,800	41,800	41,800
134	Dartford	Littlebrook Power Station (Phase 2)	B8-Storage & Distribution	Sq.m	120,000	Application Submitted	More Than Likely		120,000	120,000	120,000	120,000
135	Dartford	Thames Europort	C3-Dwelling House	Res units	805	Site Allocation	Reasonably Foreseeable		0	0	0	0
136	Dartford	Swanscombe Peninsula (including the former RAF site)	C3-Dwelling House	Res units	800	Planning Consent	Near Certain		800	800	800	800
136	Dartford	Swanscombe Peninsula (including the former RAF site)	B2-Industry	Sq.m	2,300	Planning Consent	Near Certain		2,300	2,300	2,300	2,300

# Appendix B SATURN output





SATURN

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st\cordonCSS  
tantecAM.UFS

Scale 10264

Link Annot:

Actual flow



SATURN

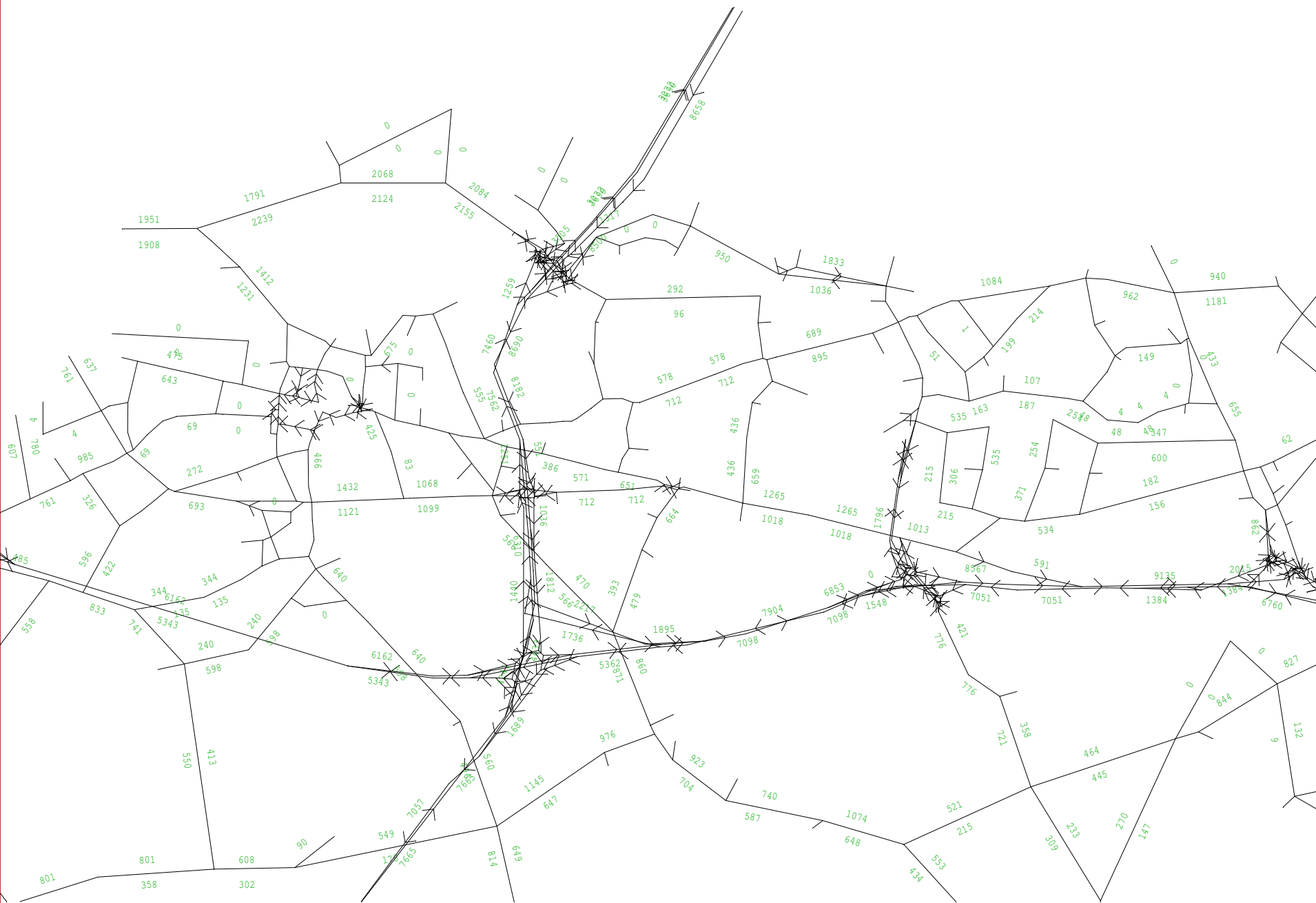
Atkins Ltd /  
DWV / ITS

st\cordonCMS  
tantecPM.UFS

Scale 38891

Link Annot:

Actual flow





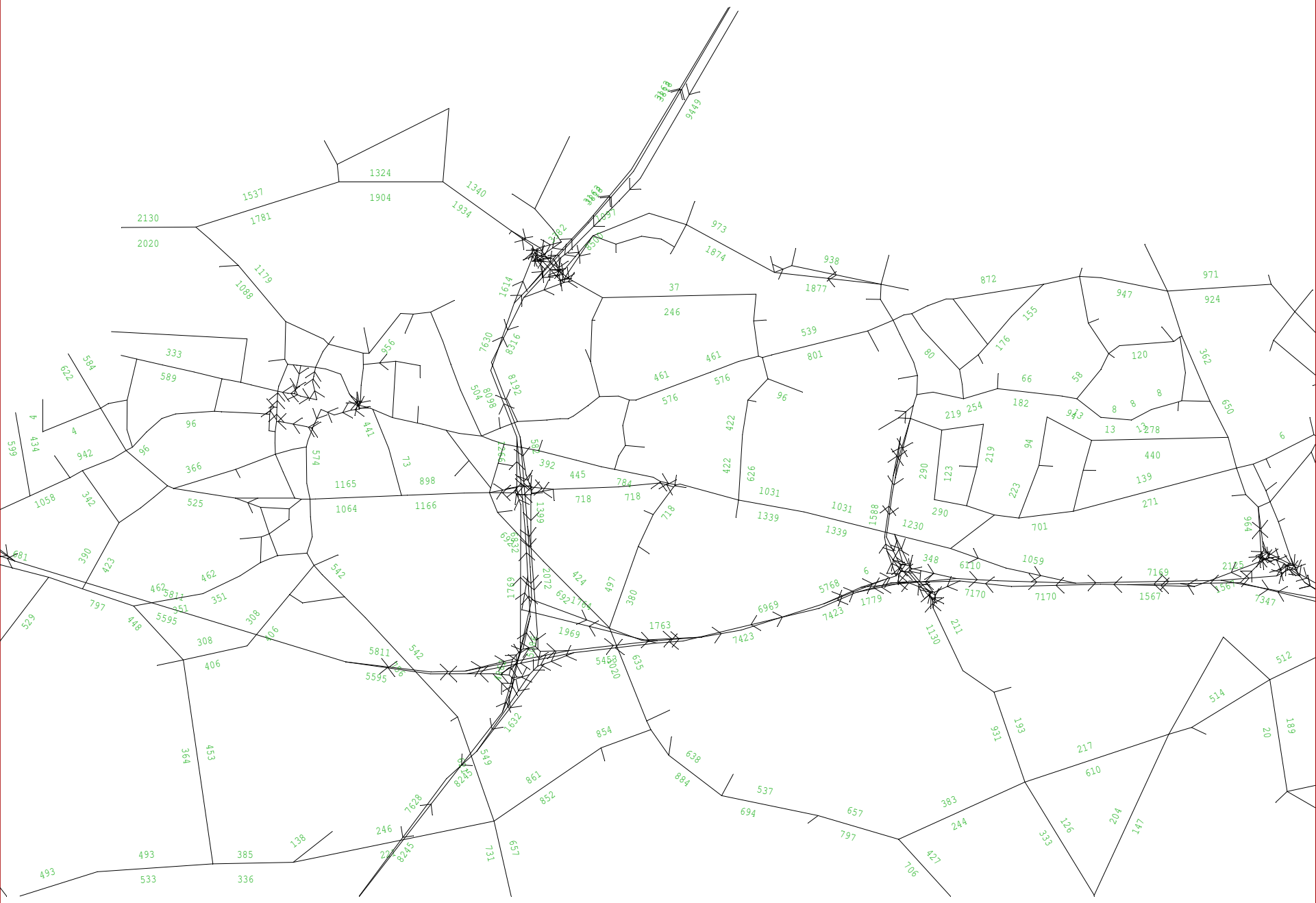
SATURN  
 Atkins Ltd /  
 DWV / ITS

st\cordonCMS  
 tantecPM.UFS

Scale 10264

Link Annot:

Actual flow





SATURN

Atkins Ltd /  
DVG / ITS

st\cordonCMS  
tantecAM.UFS

Scale 10264

Link Annot:

Actual flow

24- 9-20

PETER BRETT

SATURN

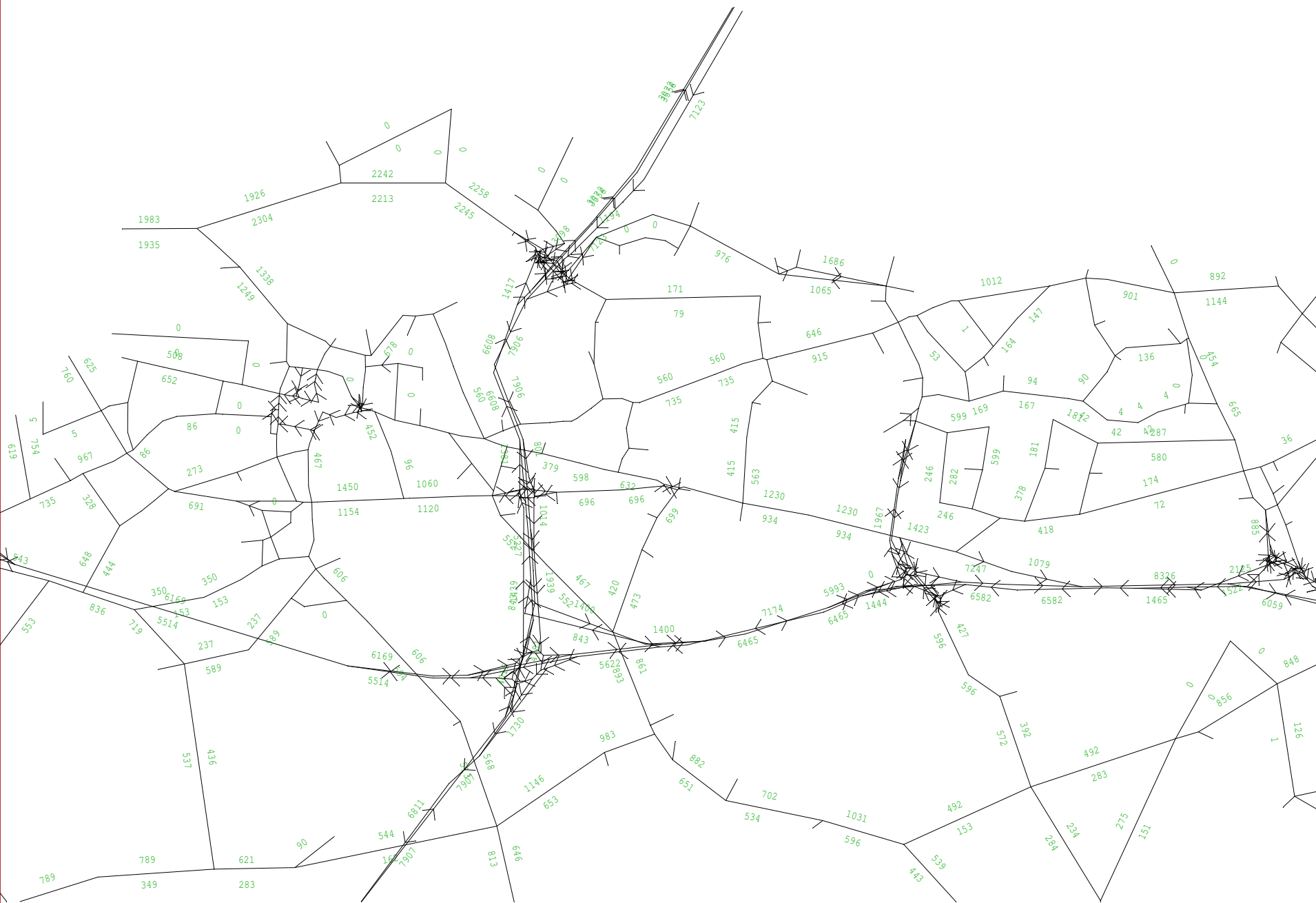
Atkins Ltd /  
DWV / ITS

st\cordonCSS  
tantecPM.UFS

Scale 38891

Link Annot:

Actual flow





SATURN  
 Atkins Ltd /  
 DVW / ITS  
 st\cordonCSS  
 tantecPM.UFS  
 Scale 10264  
 Link Annot:  
 Actual flow



# Appendix C    2019 vs 2036 comparison

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
1	Oakfield Lane	Heath Lane	Leyton Cross Rd Rbt	86707	86201	8670786201	813	876	867
2	Oakfield Lane	Leyton Cross Rd Rbt	Heath Lane	86201	86707	8620186707	874	870	869
3	Leyton Cross Road	Bracton Ln Rbt	Leyton Cross Rd Rbt	86711	86201	8671186201	729	769	775
4	Leyton Cross Road	Leyton Cross Rd Rbt	Bracton Ln Rbt	86201	86711	8620186711	544	529	553
5	Oakfield Lane	Pinewood PI Rbt	Leyton Cross Rd Rbt	86710	86201	8671086201	631	681	700
6	Oakfield Lane	Leyton Cross Rd Rbt	Pinewood PI Rbt	86201	86710	8620186710	742	838	833
7	Oakfield Lane	Heath Lane	Parsons Lane	86707	86664	8670786664	708	816	817
8	Oakfield Lane	Parsons Lane	Heath Lane	86664	86707	8666486707	656	797	806
9	Oakfield Lane	Elm Road	Parsons Lane	86654	86655	8665486655	302	351	380
10	Oakfield Lane	Parsons Lane	Elm Road	86655	86654	8665586654	436	462	464
11	Oakfield Lane	Elm Road	Parsons Lane	86655	86664	8665586664	302	351	380
12	Darenth Rd nb	Princes Road	East Hill	86270	86638	8627086638	286	441	421
13	Darenth Rd sb	East Hill	Princes Road	86638	86270	8663886270	38	73	14
14	o A206W eb	Crayford Way	Thames Rd EB	90157	86673	9015786673	1738	2130	2106
15	o A206W wb	Thames Rd WB	Crayford Way	86673	90157	8667390157	1883	2020	2098
16	o A206E wb	Joyce Green Ln	A206 WB	86672	86673	8667286673	1417	1781	2044
17	o A206E eb	A206 EB	Joyce Green Ln	86673	86672	8667386672	1247	1537	1551
18	o A2026 Burnham Road Nb	Burnham Cres	Burnham Rd NB	86218	86673	8621886673	800	1012	856
19	o A2026 Burnham Sb	Burnham Rd NB	Burnham Cres	86673	86218	8667386218	825	1036	1052
20	A206 Bob Dunn Way eb (to L'bk int)	A206 (W)	Littlebrook Interchange (W)	29802	83365	2980283365	1103	1340	1358
21	A206 Bob Dunn Way wb (from L'bk int)	Littlebrook Interchange (W)	A206 (W)	81915	29802	8191529802	1418	2008	2351
22	Rennie Out (L'bk)	Rennie Drive	Littlebrook Interchange (W)	27264	81994	2726481994	241	399	403
23	Rennie In (L'bk)	Littlebrook Interchange (W)	Rennie Drive	83365	27264	8336527264	172	233	206
24	L'bk Overbridge eb	Littlebrook Interchange (W)	A206 (E)	81994	81912	8199481912	1373	1573	1747
25	Northbound off-slip at 1a	A282 Slip Road	Littlebrook Interchange (W)	81906	81910	8190681910	1426	1615	1951
26	Northbound on-slip at 1a	Littlebrook Interchange (W)	A282 Slip Road	81909	81914	8190981914	1107	1435	1226
27	L'bk Overbridge wb	Littlebrook Interchange (E)	A206 (W)	81992	81911	8199281911	1300	1896	1818
28	Crossways (to L'bk)	A206 (N)	Littlebrook Interchange (E)	27013	81993	2701381993	1115	1555	1455
29	Crossways (from L'bk)	Littlebrook Interchange (E)	A206 (N)	81908	27013	8190827013	1425	1846	1888
30	B2228 Cotton wb (to L'bk int)	Cotton Lane	Littlebrook Interchange (E)	27411	82006	2741182006	434	710	750
31	B2228 Cotton eb (from L'bk int)	Littlebrook Interchange (E)	Cotton Lane	82006	27411	8200627411	248	280	314
32	Southbound off-slip at 1a	A282 Slip Road	Littlebrook Interchange (E)	81913	81992	8191381992	1124	1441	1718
33	Southbound-slip on at 1a	Littlebrook Interchange (E)	A282 Slip Road	81991	81907	8199181907	1073	1257	1651
34	A226 London Rd Eb	A226 (W)	Cotton Lane	27435	27070	2743527070	383	496	495
35	A226 London Rd Wb	Cotton Lane	A226 (W)	27070	27435	2707027435	595	787	766
36	B2228 sb	Cotton Lane	A226	22318	27070	2231827070	307	359	361
37	B2228 nb	A226	Cotton Lane	27070	22318	2707022318	318	398	396
38	A226 London Rd Wb	A226 (E)	Cotton Lane	22320	27070	2232027070	565	746	711
39	A226 London Rd Eb	Cotton Lane	A226 (E)	27070	22320	2707022320	343	416	404
40	A226 Eb (west of Stone Park Rd)	A226 (W)	Stone Place Road Xroad	22307	22305	2230722305	357	461	514
41	A226 Wb (west of Stone Park Rd)	Stone Place Road Xroad	A226 (W)	22305	22307	2230522307	500	576	604
42	Stone Place Rd sb (B2228 alternative)	Stone Place Road	Stone Place Road Xroad	89595	22305	8959522305	122	142	143
43	Stone Place Rd nb (B2228 alternative)	Stone Place Road Xroad	Stone Place Road	22305	89595	2230589595	122	281	317
44	A226 wb (east of Hedge) S2	A226 (E)	Stone Place Road Xroad	20132	22306	2013222306	564	801	807
45	A226 eb (east of Hedge) S2	Stone Place Road Xroad	A226 (E)	22306	20132	2230620132	420	539	538
46	Hedge Place Rd Nb	Hedge Place Road	Stone Place Road Xroad	22303	22341	2230322341	201	338	380
47	Hedge Place Rd Sb	Stone Place Road Xroad	Hedge Place Road	22341	22303	2234122303	201	345	385
48	B255 south of A226 nb	St Clements Way	St Clements Roundabout	27029	27028	2702927028	1137	1728	1730
49	B255 south of A226 sb	St Clements Roundabout	St Clements Way	27028	27029	2702827029	940	1040	989
50	Crossing Sb	Long :0.247715	Lat :51.45587	75440	24103	7544024103	8108	8500	8206
51	Crossing Nb	Long :0.247094	Lat :51.45613	75109	75425	7510975425	3728	3818	3384
52	Crossing N	Long :0.246884	Lat :51.45625	75107	75424	7510775424	3194	3163	3000
53	Southbound within 1a	Long :0.240067	Lat :51.45138	81913	81907	8191381907	6984	7059	6488
54	Northbound within 1a	Long :0.241240	Lat :51.45240	81906	75108	8190675108	5845	6015	5159
55	1a1b Sb	Long :0.237572	Lat :51.44332	82506	81905	8250681905	8057	8192	8122
56	1b1a Nb	Long :0.236893	Lat :51.44387	81904	82490	8190482490	7271	8098	7193
57	PRI - sb off-slip	Long :0.239042	Lat :51.44042	81905	88691	8190588691	629	582	715
58	PRI - nb on-slip	Long :0.238378	Lat :51.43951	81902	81904	8190281904	#N/A	#N/A	#N/A

2		Increase	
-3		Decrease	
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
63	7.8%	-9	-1.1%
-4	-0.4%	-1	-0.1%
40	5.4%	6	0.7%
-16	-2.9%	24	4.6%
50	7.8%	19	2.7%
97	13.0%	-5	-0.6%
107	15.2%	1	0.2%
141	21.4%	9	1.2%
49	16.2%	28	8.0%
26	6.0%	2	0.4%
49	16.2%	28	8.0%
156	54.5%	-21	-4.7%
35	93.6%	-59	-80.8%
392	22.6%	-24	-1.1%
137	7.3%	78	3.9%
364	25.7%	264	14.8%
290	23.2%	14	0.9%
212	26.4%	-155	-15.4%
211	25.5%	16	1.5%
237	21.4%	18	1.4%
590	41.6%	343	17.1%
158	65.3%	3	0.9%
61	35.3%	-27	-11.5%
200	14.6%	174	11.0%
189	13.3%	336	20.8%
327	29.6%	-209	-14.6%
596	45.8%	-77	-4.1%
440	39.4%	-99	-6.4%
421	29.5%	41	2.2%
277	63.8%	40	5.6%
33	13.1%	34	12.0%
317	28.3%	277	19.2%
185	17.2%	394	31.3%
113	29.5%	-1	-0.3%
192	32.3%	-21	-2.6%
51	16.7%	2	0.4%
80	25.1%	-2	-0.4%
181	32.0%	-34	-4.6%
73	21.3%	-12	-2.8%
104	29.0%	54	11.7%
76	15.2%	28	4.9%
20	16.1%	1	1.0%
159	129.5%	36	12.6%
237	42.0%	6	0.8%
119	28.3%	-1	-0.2%
137	68.2%	42	12.3%
144	71.5%	40	11.7%
591	52.0%	2	0.1%
100	10.6%	-51	-4.9%
392	4.8%	-294	-3.5%
90	2.4%	-434	-11.4%
-30	-1.0%	-163	-5.1%
75	1.1%	-571	-8.1%
170	2.9%	-856	-14.2%
135	1.7%	-70	-0.9%
827	11.4%	-905	-11.2%
-47	-7.5%	133	22.8%
#N/A	#N/A	#N/A	#N/A

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
59	M25 nb within 1b	Long :0.238530	Lat :51.44055	82482	81904	8248281904	6616	6832	6325
60	M25 sb within 1b	Long :0.239092	Lat :51.43646	81899	82391	8189982391	6801	6850	6627
61	J2 M25Sb within	Long :0.238701	Lat :51.42668	82209	81885	8220981885	4929	5086	5701
62	J2 M25Nb within	Long :0.238597	Lat :51.42691	81886	82206	8188682206	3861	4862	4343
63	PRI - DI Southern (Sb on-slip)	Long :0.239970	Lat :51.43116	81898	88690	8189888690	1536	2072	1939
64	J2 M25N to A2 Coast	Long :0.239698	Lat :51.42942	82209	81689	8220981689	1871	1764	926
65	J2 A2 Coast to M25N	Long :0.245697	Lat :51.42678	81649	81888	8164981888	#N/A	#N/A	#N/A
66	J2 to M25 nb	Long :0.238725	Lat :51.42805	81887	82206	8188782206	#N/A	#N/A	#N/A
67	M25S sb	Long :0.226463	Lat :51.41701	82483	81879	8248381879	7941	8245	8500
68	M25S nb	Long :0.226444	Lat :51.41721	82485	81886	8248581886	6457	7628	7095
69	A2 eb (W of J2)	Long :0.225549	Lat :51.42603	86162	81881	8616281881	4582	5811	5782
70	A2 wb (W of J2)	Long :0.225943	Lat :51.42584	81880	24026	8188024026	5720	5595	5836
71	A2/A2018 junction within wb	Long :0.180552	Lat :51.43512	86156	86177	8615686177	4605	4570	4862
72	A2/A2018 junction within eb	Long :0.175526	Lat :51.43775	86177	86156	8617786156	3528	4240	4218
73	A2 /A2018 junction slip	Long :0.180443	Lat :51.43495	86156	86701	8615686701	1115	1025	975
74	A2 /A2018 junction slip	Long :0.175734	Lat :51.43789	86177	86699	8617786699	953	1306	1307
75	A2 /A2018 junction slip	Long :0.176289	Lat :51.43685	86698	86177	8669886177	930	704	612
76	A2 Eb (E of J2)	Long :0.263754	Lat :51.42828	82526	81890	8252681890	5561	#N/A	#N/A
77	A2 Wb (E of J2)	Long :0.265195	Lat :51.42834	82921	82524	8292182524	7714	7423	7249
78	Coastbound off at Bean	Long :0.276099	Lat :51.43092	81890	82960	8189082960	623	#N/A	#N/A
79	A2 Westbound exit for Bean Jnct	Long :0.284442	Lat :51.43090	81917	82952	8191782952	#N/A	#N/A	#N/A
80	A2 eb within Bean	Long :0.284715	Lat :51.43119	81890	81918	8189081918	4939	#N/A	#N/A
81	A2 @ Bean Junction Westbound	Long :0.284463	Lat :51.43104	81917	81889	8191781889	6041	5644	5668
82	Coastbound on-slip at Bean	Long :0.297190	Lat :51.43063	82964	81918	8296481918	893	1059	1047
83	A2 eb (Bean to Ebb)	Long :0.303067	Lat :51.43049	82922	81984	8292281984	5832	7169	6160
84	A2 wb duplicate	Long :0.302857	Lat :51.43031	82919	82929	8291982929	7816	#N/A	#N/A
85	A2 eb (within Ebb)	Long :0.322875	Lat :51.42986	81984	81980	8198481980	4491	5030	3985
86	A2 wb (within Ebb)	Long :0.309976	Lat :51.43026	81983	81982	8198381982	7137	6373	6162
87	Coastbound off-slip at Ebb	Long :0.314310	Lat :51.43061	81984	81708	8198481708	#N/A	#N/A	#N/A
88	London off-slip (at Ebb)	Long :0.315867	Lat :51.43011	81983	81985	8198381985	#N/A	#N/A	#N/A
89	Coastbound on at Ebb	Long :0.324360	Lat :51.42964	81981	81980	8198181980	248	#N/A	#N/A
90	Westbound access to A2 from Ebbs Valley	Long :0.310142	Lat :51.43014	82375	81892	8237581892	638	861	879
91	A2026 Burnham Rd eb C1inb	Burnham Road	Priony Road	86211	86290	8621186290	925	1179	1185
92	A2026 Burnham Rd wb C1outb	Priony Road	Burnham Road	86290	86211	8629086211	872	1088	930
93	NG - Victoria Rd wb	Victoria Road	Priony Road	86208	86290	8620886290	802	1013	842
94	NG - Victoria Rd eb	Priony Road	Victoria Road	86290	86208	8629086208	821	1054	1032
95	NG - Victoria Rd eb	Victoria Road	Mill Pond Rd Rbt	86208	86210	8620886210	821	1054	1032
96	NG - Victoria Rd wb	Mill Pond Rd Rbt	Victoria Road	86210	86208	8621086208	802	1013	842
97	TCR Hythe St (S1) nb	Hythe Street	Mill Pond Rd Rbt	86280	86210	8628086210	427	610	571
98	TCR Hythe St (S1) sb	Mill Pond Rd Rbt	Hythe Street	86210	86280	8621086280	831	1147	1162
99	NG - Mill Pond East Wb	Temple Hill	Overy St	86206	86220	8620686220	986	945	948
100	NG - Mill Pond West Eb	Overy St	Temple Hill	86220	86206	8622086206	769	793	800
101	TCR-OveryNb	Overy St	Mill Pond Road	86191	86220	8619186220	428	594	554
102	TCR-OverySb	Mill Pond Road	Overy St	86220	86191	8622086191	259	311	352
103	NG - Mill Pond West eb	Mill Pond Road	Temple Hill	86210	86220	8621086220	614	574	577
104	NG - Mill Pond East wb	Temple Hill	Mill Pond Road	86220	86210	8622086210	999	1010	926
105	Temple Hill (into TH -)	Temple Hill	Temple Hill Rbt	86206	86203	8620686203	554	623	631
106	Temple Hill (out of TH -)	Temple Hill Rbt	Temple Hill	86203	86206	8620386206	829	956	958
107	Temple Hill (out of TH -)	Temple Hill Sq	Temple Hill Rbt	86627	86203	8662786203	829	956	958
108	Temple Hill (into TH -)	Temple Hill Rbt	Temple Hill Sq	86203	86627	8620386627	554	623	631
109	St Vincents Nb	Attlee Dr	St Vincent's Ave	86197	86198	8619786198	530	530	530
110	St Vincents Sb	St Vincent's Ave	Attlee Dr	86198	86197	8619886197	445	504	503
111	Temple Hill Square Eb	Temple Hill Sq	St Vincent's Ave	86627	86198	8662786198	518	599	567
112	Temple Hill Square Wb	St Vincent's Ave	Temple Hill Sq	86198	86627	8619886627	621	739	703
113	Westgate/HighfieldN	Priony Road	Westgate Rd	86240	86277	8624086277	681	785	801
114	Westgate/HighfieldN	Highfield Road N	Priony Road	86239	86240	8623986240	876	959	959
115	Westgate/HighfieldN	Westgate Rd (WNV)	Kent Road	86277	86245	8627786245	681	785	801
116	Westgate/HighfieldN	Kent Road	Westgate Rd (WNV)	86245	86277	8624586277	351	351	379

2	Increase		
3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
216	3.3%	-507	-7.4%
49	0.7%	-223	-3.3%
157	3.2%	614	12.1%
1001	25.9%	-519	-10.7%
536	34.9%	-134	-6.4%
-108	-5.8%	-838	-47.5%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
304	3.8%	256	3.1%
1170	18.1%	-533	-7.0%
1229	26.8%	-29	-0.5%
-125	-2.2%	241	4.3%
-35	-0.8%	292	6.4%
711	20.2%	-22	-0.5%
-90	-8.1%	-50	-4.9%
353	37.0%	1	0.1%
-226	-24.3%	-92	-13.1%
#N/A	#N/A	#N/A	#N/A
-292	-3.8%	-174	-2.3%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
-397	-6.6%	24	0.4%
165	18.5%	-11	-1.1%
1337	22.9%	-1009	-14.1%
#N/A	#N/A	#N/A	#N/A
539	12.0%	-1045	-20.8%
-764	-10.7%	-210	-3.3%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
223	34.9%	19	2.2%
253	27.4%	7	0.6%
216	24.7%	-158	-14.5%
211	26.3%	-171	-16.9%
233	28.3%	-22	-2.1%
233	28.3%	-22	-2.1%
211	26.3%	-171	-16.9%
183	42.7%	-39	-6.3%
316	38.0%	15	1.3%
-41	-4.1%	2	0.2%
23	3.0%	7	0.9%
166	38.9%	-41	-6.8%
52	20.0%	41	13.1%
-40	-6.5%	2	0.4%
11	1.1%	-84	-8.3%
70	12.6%	8	1.2%
127	15.3%	2	0.2%
127	15.3%	2	0.2%
70	12.6%	8	1.2%
0	0.0%	0	0.0%
59	13.2%	-1	-0.2%
82	15.8%	-32	-5.4%
118	19.0%	-36	-4.9%
105	15.4%	16	2.0%
83	9.5%	0	0.0%
105	15.4%	16	2.0%
0	-0.1%	28	8.0%

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
117	TCR_Hythe St (S1) sb	Hythe Street N	Hythe Street	86280	86257	8628086257	831	1147	1162
118	TCR_Hythe St (s1) nb	Hythe Street	Hythe Street N	86257	86280	8625786280	427	610	571
119	TC_Home Gardens 1 wb	Home Gardens	Westgate Rd	86258	86257	8625886257	349	457	436
120	TC_Home Gardens 1 eb	Westgate Rd	Home Gardens	86257	86258	8625786258	1058	1398	1411
121	TC_Westgate wb	Westgate Rd	Home Gardens	86245	86257	8624586257	657	753	761
122	TC_Westgate eb	Home Gardens	Westgate Rd	86257	86245	8625786245	351	351	379
123	TC_Home Gardens 3 eb	Home Gardens E	Home Gardens WB	86262	86260	8626286260	458	466	466
124	TC_Home Gardens 3 wb	Home Gardens EB	Home Gardens E	86260	86262	8626086262	963	1305	1304
125	TC_Home Gardens 2 wb	Home Gardens W	Home Gardens EB	86258	86260	8625886260	963	1305	1304
126	TC_Home Gardens 2 eb	Home Gardens WB	Home Gardens W	86260	86258	8626086258	458	466	466
127	East Hill Eb	East Hill	Mount Pleasant Rd	86190	86636	8619086636	579	502	557
128	East Hill Wb	Mount Pleasant Rd	East Hill	86636	86190	8663686190	649	923	916
129	Darenth Rd sb	Darenth Rd	Mount Pleasant Rd	86638	86636	8663886636	286	441	421
130	Darenth Rd nb	Mount Pleasant Rd	Darenth Road	86636	86638	8663686638	38	73	14
131	East Hill	Overy Liberty	Mount Pleasant Rd	86187	86637	8618786637	649	923	916
132	East Hill	Mount Pleasant Rd	Overy Liberty	86637	86187	8663786187	827	870	963
133	A226 The Brent (W) - wb	The Brent	Park Road Rbt	86315	86313	8631586313	714	897	904
134	A226 The Brent (W) - eb	Park Road Rbt	The Brent	86313	86315	8631386315	456	551	528
135	Park Road nwb	Park Road	Park Road Rbt	79536	86313	7953686313	332	374	359
136	Park Road seb	Park Road Rbt	Park Road	86313	79536	8631379536	419	774	764
137	A226 East Hill (E) - eb	East Hill	Park Road Rbt	86307	86313	8630786313	623	940	936
138	A226 East Hill (E) - wb	Park Road Rbt	East Hill	86313	86307	8631386307	795	886	908
139	TH - St Vin Sb	St Vincent's Rd	Watling Street Rbt	86329	27080	8632927080	445	504	503
140	TH - St Vin Nb	Watling Street Rbt	St Vincent's Rd	27080	86329	2708086329	548	546	552
141	A226 The Brent ( E ) - eb	The Brent E	Watling Street Rbt	27430	27080	2743027080	744	951	926
142	A226 The Brent ( E ) - wb	Watling Street Rbt	The Brent E	27080	27430	2708027430	442	565	565
143	B2500 Watling St (W) -wb	Watling Street	Watling Street Rbt	29820	27080	2982027080	640	676	698
144	B2500 Watling St (W) - eb	Watling Street Rbt	Watling Street	27080	29820	2708029820	580	675	634
145	A226 The Brent (W) - eb - duplicate	The Brent W	Watling Street Rbt	86315	27080	8631527080	456	551	528
146	A226 The Brent (W) - eb - duplicate	Watling Street Rbt	The Brent W	27080	86315	2708086315	714	897	904
147	TC - Instone	Lowfield St N	Instone Rd Jnct	86690	86685	8669086685	936	1084	1225
148	TC - Instone	Lowfield St S	Instone Rd Jnct	86661	86685	8666186685	399	327	310
149	TC - Instone	Instone Rd Jnct	Lowfield St S	86685	86661	8668586661	809	739	746
150	TC - Instone	Instone Rd Jnct	Instone Rd	86685	86225	8668586225	526	671	789
151	Highfield Rd Nb (one-way)	Instone Rd	Highfield Road N	86229	86231	8622986231	654	737	761
152	TC - Instone	Instone Rd	Highfield Road	86695	86229	8669586229	526	671	789
153	Highfield Rd - South of Instone nb	Highfield Road S	Highfield Road N	86228	86229	8622886229	129	230	238
154	Highfield Rd - South of Instone sb	Highfield Road N	Highfield Road S	86229	86228	8622986228	1	165	267
155	Westgate/HighfieldN	Highfield Road N	West Hill Junction	86239	86233	8623986233	294	310	338
156	Westgate/HighfieldN	West Hill Junction	Highfield Road N	86233	86239	8623386239	876	959	959
157	TC	Highfield Road	West Hill Junction	86632	86233	8663286233	654	737	761
158	Highfield Rd - North of Heath sb	Highfield Road	Heath Lane Rbt	86226	86659	8622686659	1	165	267
159	Highfield Rd - North of Heath nb	Heath Lane Rbt	Highfield Road	86659	86226	8665986226	129	230	238
160	Heath St wb	Heath Street	Heath Lane Rbt	86221	86659	8622186659	319	475	435
161	Heath St eb	Heath Lane Rbt	Heath Street	86659	86221	8665986221	281	311	293
162	Highfield Road S nb	Highfield Road S	Heath Lane Rbt	86658	86659	8665886659	122	67	82
163	Highfield Road S sb	Heath Lane Rbt	Highfield Road S	86659	86658	8665986658	194	206	262
164	Heath Lane (lower) - eb	Heath Lane	Heath Lane Rbt	86657	86659	8665786659	483	529	536
165	Heath Lane (lower) - wb	Heath Lane Rbt	Heath Lane	86659	86657	8665986657	320	489	527
166	Lowfield St (north of B2174) sb	Lowfield Street N	B2174/A255 Junction	86222	86641	8622286641	553	574	598
167	Lowfield St (north of B2174) nb	B2174/A255 Junction	Lowfield Street N	86641	86222	8664186222	615	751	743
168	A225 Wb	Princes Road E	B2174/A255 Junction	86704	86641	8670486641	1018	1064	1186
169	A225 Eb	B2174/A255 Junction	Princes Road E	86641	86704	8664186704	1053	1165	1147
170	A225 Nb	Lowfield Street S	B2174/A255 Junction	86648	86641	8664886641	823	929	925
171	A225 Sb	B2174/A255 Junction	Lowfield Street S	86641	86648	8664186648	961	990	1066
172	B2174 eb	Princes Road W	B2174/A255 Junction	86003	86641	8600386641	880	980	977
173	B2174 wb	B2174/A255 Junction	Princes Road W	86641	86003	8664186003	646	638	722
174	Highfield Road S sb	Highfield Rd S	B2174 Junction	86658	86642	8665886642	194	206	262

2	Increase		
-3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
316	38.0%	15	1.3%
183	42.7%	-39	-6.3%
108	30.9%	-21	-4.5%
340	32.1%	12	0.9%
96	14.6%	8	1.0%
0	-0.1%	28	8.0%
8	1.7%	0	0.0%
342	35.5%	-1	-0.1%
342	35.5%	-1	-0.1%
8	1.7%	0	0.0%
-77	-13.3%	55	11.0%
274	42.2%	-7	-0.8%
156	54.5%	-21	-4.7%
35	93.6%	-59	-80.8%
274	42.2%	-7	-0.8%
43	5.2%	93	10.7%
182	25.5%	7	0.8%
95	20.9%	-23	-4.2%
42	12.5%	-15	-4.0%
354	84.5%	-10	-1.3%
317	50.8%	-4	-0.4%
91	11.4%	22	2.5%
59	13.2%	-1	-0.2%
-2	-0.4%	6	1.1%
207	27.9%	-26	-2.7%
123	27.8%	0	0.0%
37	5.7%	21	3.1%
96	16.5%	-42	-6.2%
95	20.9%	-23	-4.2%
182	25.5%	7	0.8%
147	15.7%	142	13.1%
-72	-18.1%	-17	-5.2%
-70	-8.7%	7	1.0%
145	27.6%	118	17.6%
83	12.7%	24	3.3%
145	27.6%	118	17.6%
101	78.8%	8	3.6%
164	24094.1%	102	62.1%
16	5.4%	28	8.9%
83	9.5%	0	0.0%
83	12.7%	24	3.3%
164	24094.1%	102	62.1%
101	78.8%	8	3.6%
156	48.8%	-40	-8.4%
29	10.4%	-18	-5.8%
-55	-45.4%	15	23.1%
12	6.3%	56	27.1%
47	9.7%	6	1.2%
168	52.5%	38	7.8%
21	3.8%	24	4.2%
137	22.3%	-9	-1.2%
47	4.6%	122	11.4%
113	10.7%	-18	-1.6%
106	12.8%	-4	-0.4%
29	3.0%	76	7.7%
99	11.3%	-3	-0.3%
-9	-1.4%	84	13.3%
12	6.3%	56	27.1%

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
175	Highfield Road S nb	B2174 Junction	Highfield Rd S	86642	86658	8664286658	122	67	82
176	B2174 Wb	Princes Road E	B2174 Junction	86003	86642	8600386642	599	505	641
177	B2174 Eb	B2174 Junction	Princes Road E	86642	86003	8664286003	770	788	842
178	B2174 Eb	Princes Road W	B2174 Junction	86004	86642	8600486642	576	581	580
179	B2174 Wb	B2174 Junction	Princes Road W	86642	86004	8664286004	477	438	559
180	Lowfield St (south of Heath) nb	B2174	A226	86222	86660	8622286660	615	751	743
181	Lowfield St (south of Heath) sb	B2174	A226	86660	86222	8666086222	553	574	598
182	A225 Nb	B258	B2174	86647	86648	8664786648	823	929	925
183	A225 Sb	B258	B2174	86648	86647	8664886647	961	990	1066
184	A2018 eb	A2(T)	A226	86684	86683	8668486683	758	869	855
185	A2018 wb	A2(T)	A226	86683	86684	8668386684	799	1058	1106
186	A226 eb	LA Boundary	A2018	86339	86282	8633986282	293	333	341
187	A226 Wb	LA Boundary	A2018	86282	86339	8628286339	369	589	667
188	Highfield Rd Nb (one-way)	A225	A226 West Hill	86231	86632	8623186632	654	737	761
189	PRI - A225Wb	A296	A282(T)	81900	81902	8190081902	1019	1316	1445
190	PRI - A225Eb	A296	A282(T)	81901	81900	8190181900	#N/A	#N/A	#N/A
191	A225 Princes eb	A225 Lowfield St	A296	86292	86295	8629286295	839	898	900
192	A225 Princes wb	A225 Lowfield St	A296	86295	86292	8629586292	1052	1166	1346
193	West Hill (west of Priory H) wb	A2018	A226 Highfield Road North	86265	86670	8626586670	592	685	733
194	West Hill (west of Priory H) eb	A2018	A226 Highfield Road North	86670	86265	8667086265	517	642	643
195	A225 Nb	A20	B258	90050	44053	9005044053	582	731	724
196	A225 Sb	A20	B258	44053	90050	4405390050	600	657	687
197	Overy Liberty/Market St	A225	A226 Home Gardens	86689	86690	8668986690	936	1084	1225
198	A226 Stone Eb	A296	A206	22322	27505	2232227505	357	461	514
199	A226 Stone Wb	A296	A206	27505	22322	2750522322	500	576	604
200	Crossways	A206 Crossway Blvd	A206 Galleon Blvd	22250	27014	2225027014	768	1097	1102
201	Crossways	A206 Galleon Blvd	A206 Crossway Blvd	27014	22250	2701422250	712	1058	958
202	A206 Crossways	A206 Galleon Blvd	Claire Causeway	27014	27007	2701427007	592	973	946
203	A206 Crossways	Claire Causeway	A206 Galleon Blvd	27007	27014	2700727014	1413	1874	1845
204	A206 Crossways E eb S2	Claire Causeway	Station Road	27007	27009	2700727009	#N/A	#N/A	#N/A
205	A206 Crossways wb E S2	Station Road	Claire Causeway	27009	27007	2700927007	1429	1877	1845
206	A206 (north of Steele) nb	Steele Ave	A206	27010	27009	2701027009	1664	2145	2076
207	A206 (north of Steele) sb	A206	Steele Ave	27009	27010	2700927010	852	1294	1196
208	A206 (north of A226) nb	St Clements Rbt	Steele Ave	27028	27010	2702827010	1531	1988	1928
209	A206 (north of A226) sb	Steele Ave	St Clements Rbt	27010	27028	2701027028	852	1294	1196
210	Crossways zone loader (arr)	Galleon Blvd N	Crossways	27014	27017	2701427017	362	486	521
211	Crossways zone loader (dep)	Crossways	Galleon Blvd N	27017	27014	2701727014	146	251	249
212	Crossways	Galleon Blvd S	Crossways	22235	27014	2223527014	48	76	74
213	Crossways	Crossways	Galleon Blvd S	27014	22235	2701422235	708	781	846
214	Crossways zone loader (arr)	Claire Causeway	Crossways	27007	89422	2700789422	0	0	0
215	Crossways zone loader (dep)	Crossways	Claire Causeway	89422	27007	8942227007	48	101	108
216	A226 eb (east of B255)	Mounts Road	Rbt	27028	28053	2702828053	545	954	1002
217	A226 wb (east of B255)	Rbt	Mounts Road	28053	27028	2805327028	1161	1287	1285
218	A226 eb (west of B255)	Sanderling Way	Rbt	20132	27028	2013227028	568	717	715
219	A226 wb (west of B255)	Rbt	Sanderling Way	27028	20132	2702820132	701	942	959
220	B255 south of A226 nb	B225	Rbt	27027	27029	2702727029	1137	1728	1730
221	B255 south of A226 sb	Rbt	B225	27029	27027	2702927027	940	1040	989
222	B225 north of Mounts nb	Mounts Road	Castleridge Drive	27026	89424	2702689424	1085	1682	1692
223	B225 north of Mounts sb	Castleridge Drive	Mounts Road	89424	27026	8942427026	962	1058	1004
224	CG - A296W Eb	A296 Princes Road	Clarendon Gardens Rbt	81997	22340	8199722340	387	445	554
225	CG - A296W Wb	Clarendon Gardens Rbt	A296 Princes Road	22340	81997	2234081997	553	718	614
226	CG - B2500 Eb	Watling Street	Clarendon Gardens Rbt	22343	29914	2234329914	757	918	765
227	CG - B2500 Wb	Clarendon Gardens Rbt	Watling Street	29914	22343	2991422343	661	764	764
228	CG - A296E Eb	Clarendon Gardens Rbt	A296 Watling Street	27506	22338	2750622338	993	1195	1195
229	CG - A296W Eb	A296 Watling Street	Clarendon Gardens Rbt	22338	27506	2233827506	921	1002	1019
230	CG - Gore Road nb	Gore Road	Clarendon Gardens Rbt	22332	22339	2233222339	458	664	663
231	CG - Gore Road sb	Clarendon Gardens Rbt	Gore Road	22339	22332	2233922332	459	718	780
232	A296 (E of DV) Eb S2	A296	Bean Junction	27506	22243	2750622243	775	1031	981

2		Increase	
-3		Decrease	
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
-55	-45.4%	15	23.1%
-95	-15.8%	136	26.9%
17	2.3%	54	6.9%
5	0.9%	-2	-0.3%
-39	-8.2%	121	27.5%
137	22.3%	-9	-1.2%
21	3.8%	24	4.2%
105	12.8%	-4	-0.4%
29	3.0%	76	7.7%
111	14.7%	-14	-1.6%
259	32.4%	48	4.5%
40	13.7%	8	2.4%
220	59.8%	78	13.3%
83	12.7%	24	3.3%
297	29.1%	129	9.8%
#N/A	#N/A	#N/A	#N/A
59	7.0%	2	0.3%
113	10.8%	181	15.5%
93	15.7%	48	6.9%
126	24.4%	1	0.1%
150	25.8%	-8	-1.0%
57	9.5%	30	4.5%
147	15.7%	142	13.1%
104	29.0%	54	11.7%
76	15.2%	28	4.9%
328	42.8%	5	0.5%
346	48.6%	-101	-9.5%
380	64.2%	-27	-2.8%
461	32.6%	-29	-1.6%
#N/A	#N/A	#N/A	#N/A
448	31.4%	-33	-1.7%
482	29.0%	-69	-3.2%
442	51.9%	-98	-7.6%
457	29.9%	-60	-3.0%
442	51.9%	-98	-7.6%
124	34.3%	35	7.2%
105	72.2%	-2	-0.8%
28	59.5%	-2	-2.2%
73	10.2%	65	8.3%
0	#DIV/0!	0	#DIV/0!
54	112.8%	7	6.7%
409	74.9%	48	5.0%
126	10.8%	-2	-0.2%
149	26.2%	-1	-0.2%
241	34.4%	17	1.8%
591	52.0%	2	0.1%
100	10.6%	-51	-4.9%
597	55.0%	10	0.6%
95	9.9%	-53	-5.0%
58	15.0%	109	24.6%
165	29.8%	-104	-14.5%
162	21.3%	-153	-16.7%
123	18.6%	-20	-2.6%
202	20.4%	0	0.0%
82	8.9%	16	1.6%
206	44.9%	-1	-0.1%
259	56.3%	62	8.7%
256	33.0%	-50	-4.9%

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
233	A296 (E of DV) Wb S2	Bean Junction	A296	22243	27506	2224327506	1088	1339	1366
234	Former B2174 Nb (from DV)	St James Lane	Rbt	27506	22301	2750622301	301	422	459
235	Former B2174 Sb (to DV)	Rbt	St James Lane	22301	27506	2230127506	401	626	643
236	Darenth Valley out			98615	27506	9861527506	266	160	153
237	Darenth Valley in			27506	98615	2750698615	607	480	546
238	A226 Swanscombe Eb	Manor Way Staggered Jnct	A226 London Road E	20119	27500	2011927500	460	931	905
239	A226 east of K'hall eb	A226 London Road W	Manor Way Staggered Jnct	20126	20119	2012620119	515	1008	992
240	A226 west of K'hall eb	Manor Way Staggered Jnct	A226 London Road W	20119	20126	2011920126	903	1134	1054
241	Craylands Lane Nb	Craylands Lane	Manor Way Staggered Jnct	89428	20119	8942820119	176	227	234
242	Craylands Lane Sb	Manor Way Staggered Jnct	Craylands Lane	20119	89428	2011989428	162	242	253
243	A226 Swanscombe Eb	A226 London Road	High Street	27500	20118	2750020118	460	931	905
244	A226 Swanscombe Wb	High Street	A226 London Road	20118	27500	2011827500	835	947	864
245	A226 Swanscombe Wb	A226 Galley Hill Road	High Street	23178	20118	2317820118	747	924	829
246	A226 Swanscombe Eb	High Street	A226 Galley Hill Road	20118	23178	2011823178	376	971	969
247	Swanscombe High St Nb	High Street	A226	20226	20118	2022620118	247	425	433
248	Swanscombe High St Sb	A226	High Street	20118	20226	2011820226	243	363	333
249	Lower Rd (nb -arr)			23178	68667	2317868667	224	219	223
250	Lower Rd (sb - dep)			68667	23178	6866723178	98	106	106
251	A226 Northfleet Eb	A226	B2175 Stonebridge Road	23178	23177	2317823177	415	855	844
252	A226 Northfleet Wb	B2175 Stonebridge Road	A226	23177	23178	2317723178	923	987	873
253	Thames Way under HS (neb)	Thames Way	Ebbs Car Park	98581	23177	9858123177	470	381	368
254	Thames Way under HS (swb)	Ebbs Car Park	Thames Way	23177	98581	2317798581	339	491	507
255	Thames Way (nwb)	Thames Way	Ebbs Car Park	81202	98581	8120298581	527	426	419
256	Thames Way (seb)	Ebbs Car Park	Thames Way	98581	81202	9858181202	321	474	493
257	oo Ebbsfleet Gateway eb			23185	89364	2318589364	393	529	523
258	oo Ebbsfleet Gateway wb			89364	23185	8936423185	998	1354	1299
259	oo International Way nb			23185	89646	2318589646	340	#N/A	#N/A
260	oo International Way sb			89646	23185	8964623185	13	#N/A	#N/A
261	oo B259 sb			89430	99997	8943099997	#N/A	#N/A	#N/A
262	oo B259 nb			99997	89430	9999789430	#N/A	#N/A	#N/A
263	oo A2260 south of B259 nb			81985	23185	8198523185	#N/A	#N/A	#N/A
264	oo A2260 south of B259 sb			23185	81985	2318581985	#N/A	#N/A	#N/A
265	A225 Hawley Road Northbound			26013	86727	2601386727	680	756	713
266	A225 Hawley Road Southbound			86727	26013	8672726013	467	542	558
267	B260 Green Street Green Road Eastbound			89426	22334	8942622334	933	1020	1002
268	B260 Green Street Green Road Westbound			22334	89426	2233489426	511	635	667
269	B255 Bean Lane (north of A2 North Roundabout) Northbound			83356	83359	8335683359	1206	#N/A	#N/A
270	B255 Bean Lane (north of A2 North Roundabout) Southbound			83358	89865	8335889865	420	#N/A	#N/A
271	A296 Roman Road Northbound			27033	27035	2703327035	893	#N/A	#N/A
272	B262 Hall Road Southbound			83355	28510	8335528510	1584	1732	1863
273	B262 Hall Road Eastbound			28510	83355	2851083355	1561	1738	1823
274	Parsonage Lane Southbound			44053	29908	4405329908	654	861	854
275	Parsonage Lane Northbound			29908	44053	2990844053	840	852	874
276	A225 Main Road Southbound			90062	90050	9006290050	497	#N/A	#N/A
277	A225 Main Road Northbound			90050	90062	9005090062	689	#N/A	#N/A
278	B260 Main Road Southbound			26637	90788	2663790788	351	427	425
279	B260 Main Road Northbound			90788	26637	9078826637	512	706	602
280	B255 Whitehill Road Northbound			90788	26554	9078826554	485	537	558
281	B255 Whitehill Road Eastbound			26554	90788	2655490788	245	273	337
282	New Barn Road Westbound			47136	26899	4713626899	487	#N/A	#N/A
283	New Barn Road Eastbound			26899	47136	2689947136	376	#N/A	#N/A
284	A226 The Brent Southbound			27431	27432	2743127432	383	496	495
285	A226 The Brent Northbound			27432	27431	2743227431	595	787	766
286	B2500 Watling Street Southbound			22346	22347	2234622347	322	385	375
287	B2500 Watling Street Eastbound			22347	22346	2234722346	457	490	571
288	B260 Trolling Down Hill Westbound			22334	86297	2233486297	660	692	674
289	B260 Trolling Down Hill Eastbound			86297	22334	8629722334	415	424	344
290	A225 Hawley Road Eastbound			44053	26013	4405326013	603	621	573

2		Increase	
-3		Decrease	
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
251	23.1%	27	2.0%
121	40.4%	37	8.7%
225	56.0%	17	2.7%
-106	-39.9%	-7	-4.3%
-128	-21.0%	67	13.9%
472	102.5%	-27	-2.9%
493	95.8%	-17	-1.6%
230	25.5%	-79	-7.0%
51	29.0%	7	3.1%
80	49.1%	11	4.4%
472	102.5%	-27	-2.9%
113	13.5%	-83	-8.8%
178	23.8%	-96	-10.3%
595	158.2%	-1	-0.1%
178	72.0%	8	1.8%
120	49.3%	-30	-8.3%
-5	-2.0%	4	1.6%
8	8.1%	0	0.0%
440	105.9%	-11	-1.3%
64	7.0%	-114	-11.6%
-89	-19.0%	-13	-3.5%
153	45.0%	15	3.1%
-102	-19.3%	-6	-1.5%
153	47.5%	19	4.0%
136	34.6%	-7	-1.3%
356	35.6%	-55	-4.1%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
76	11.2%	-42	-5.6%
75	16.1%	16	3.0%
87	9.3%	-19	-1.8%
124	24.2%	32	5.1%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
148	9.3%	131	7.6%
178	11.4%	85	4.9%
208	31.8%	-7	-0.8%
11	1.3%	23	2.7%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
76	21.6%	-2	-0.4%
194	37.9%	-104	-14.7%
52	10.8%	20	3.8%
27	11.2%	65	23.7%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
113	29.5%	-1	-0.3%
192	32.3%	-21	-2.6%
63	19.5%	-10	-2.5%
33	7.3%	81	16.5%
32	4.9%	-18	-2.6%
9	2.1%	-80	-18.9%
18	2.9%	-48	-7.7%



**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
291	A225 Hawley Road Eastbound			26013	44053	2601344053	487	549	559
292	Clement Street Westbound			44077	44053	4407744053	155	246	238
293	Clement Street Southbound			44053	44077	4405344077	207	221	234
294	A282 southbound exit for A2 Eastbound			81899	81898	8189981898	627	674	781
295	A282 northbound distributor between A2 and A296xA225 Southbound			81887	88688	8188788688	#N/A	#N/A	#N/A
296	A2 westbound within the M25xA282 Junction Northbound			81625	81880	8162581880	4098	3820	4157
297	A2 eastbound within the M25xA282 Junction Westbound			81881	81623	8188181623	2366	3578	3545
298	M25 J2 anti-clockwise exit Northbound			81886	81883	8188681883	2500	2500	2500
299	A2 westbound access from M25xA282 Southbound			81882	81880	8188281880	1622	1775	1679
300	A2 eastbound access from M25xA282 Northbound			81624	81623	8162481623	#N/A	#N/A	#N/A
301	A2 eastbound after M25 J2 roundabout access Westbound			81881	81623	8188181623	2366	3578	3545
302	A2 westbound before M25 J2 roundabout exit Eastbound			81649	81625	8164981625	5603	5453	5934
303	B255 Bean Lane (south of A2 South Roundabout) Westbound			82952	26016	8295226016	#N/A	#N/A	#N/A
304	B255 Bean Lane (south of A2 South Roundabout) Westbound			26016	82952	2601682952	#N/A	#N/A	#N/A
305	A2 westbound between A2260 and B259 Eastbound			82915	81983	8291581983	7550	7347	7144
306	A2 westbound exit for A2260 Northbound			81894	81893	8189481893	618	707	886
307	A2 westbound within the A2260 Junction Eastbound			81894	81895	8189481895	6741	6613	6376
308	B260 Green St Green Rd (East of Ladywood Rd) Eastbound			47126	89412	4712689412	414	537	540
309	B260 Green St Green Rd (East of Ladywood Rd) Northbound			89412	47126	8941247126	628	694	627
310	Elizabeth Street Southbound			22308	27411	2230827411	97	246	277
311	Elizabeth Street Westbound			27411	22308	2741122308	41	37	42
312	A226 London Road (West of Oak Road) Eastbound			22307	27505	2230727505	500	576	604
313	A226 London Road (West of Oak Road) Westbound			27505	22307	2750522307	357	461	514
314	Southfleet Road (North of the roundabout) Eastbound			23185	99998	2318599998	#N/A	#N/A	#N/A
315	Southfleet Road (North of the roundabout) Westbound			99998	23185	9999823185	#N/A	#N/A	#N/A
316	Alkerden Lane (west of Gilbert Close) Eastbound			20231	89440	2023189440	190	182	190
317	Alkerden Lane (west of Gilbert Close) Westbound			89440	20231	8944020231	52	66	63
318	A226 Thames Way Eastbound			28512	98579	2851298579	824	1286	1176
319	A226 Thames Way Southbound			98579	28512	9857928512	110	209	152
320	B262 Station Road Northbound			76743	26019	7674326019	614	826	812
321	B262 Station Road Westbound			26019	76743	2601976743	313	512	491
322	B262 Betsham Road Eastbound			47128	26632	4712826632	494	610	535
323	B262 Betsham Road Eastbound			26632	47128	2663247128	116	217	210
324	Warren Road Northbound			26901	26898	2690126898	0	0	0
325	Warren Road Southbound			26898	26901	2689826901	0	0	0
326	B255 Highcross Road Southbound			26632	26554	2663226554	123	126	141
327	B255 Highcross Road Northbound			26554	26632	2655426632	367	333	366
328	Red Street Southbound			26020	26898	2602026898	27	29	24
329	Red Street Northbound			26898	26020	2689826020	22	13	12
330	Park Corner Road Eastbound			76747	26897	7674726897	88	#N/A	#N/A
331	Gore Road Westbound			22334	22333	2233422333	404	497	376
332	Gore Road Eastbound			22333	22334	2233322334	226	380	372
333	Ship Lane Westbound			44005	44059	4400544059	50	#N/A	#N/A
334	Ship Lane Northbound			44059	44005	4405944005	39	#N/A	#N/A
335	A2260, 385m south of International Way.			89364	98580	8936498580	393	#N/A	#N/A
336	A2260, 385m south of International Way.			98580	89364	9858089364	998	#N/A	#N/A

2	Increase		
-3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
63	12.9%	10	1.8%
91	58.9%	-9	-3.5%
13	6.3%	14	6.3%
47	7.4%	107	15.9%
#N/A	#N/A	#N/A	#N/A
-278	-6.8%	337	8.8%
1212	51.2%	-33	-0.9%
0	0.0%	0	0.0%
153	9.4%	-95	-5.4%
#N/A	#N/A	#N/A	#N/A
1212	51.2%	-33	-0.9%
-150	-2.7%	481	8.8%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
-203	-2.7%	-203	-2.8%
89	14.4%	179	25.4%
-128	-1.9%	-237	-3.6%
123	29.6%	3	0.6%
66	10.5%	-67	-9.6%
149	152.9%	31	12.7%
-4	-10.0%	6	15.3%
76	15.2%	28	4.9%
104	29.0%	54	11.7%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
-8	-4.4%	8	4.3%
14	27.0%	-3	-4.2%
462	56.1%	-110	-8.6%
99	90.4%	-57	-27.4%
211	34.4%	-14	-1.7%
199	63.5%	-20	-3.9%
116	23.6%	-75	-12.4%
101	87.0%	-7	-3.0%
0	-66.7%	0	0.0%
0	#DIV/0!	0	#DIV/0!
3	2.4%	15	12.1%
-34	-9.2%	32	9.7%
2	7.5%	-5	-16.4%
-10	-44.1%	0	-1.2%
#N/A	#N/A	#N/A	#N/A
94	23.2%	-121	-24.3%
153	67.7%	-8	-2.0%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
1	Oakfield Lane	Heath Lane	Leyton Cross Rd Rbt	86707	86201	8670786201	813	876	867
2	Oakfield Lane	Leyton Cross Rd Rbt	Heath Lane	86201	86707	8620186707	874	870	869
3	Leyton Cross Road	Bracton Ln Rbt	Leyton Cross Rd Rbt	86711	86201	8671186201	729	769	775
4	Leyton Cross Road	Leyton Cross Rd Rbt	Bracton Ln Rbt	86201	86711	8620186711	544	529	553
5	Oakfield Lane	Pinewood Pl Rbt	Leyton Cross Rd Rbt	86710	86201	8671086201	631	681	700
6	Oakfield Lane	Leyton Cross Rd Rbt	Pinewood Pl Rbt	86201	86710	8620186710	742	838	833
7	Oakfield Lane	Heath Lane	Parsons Lane	86707	86664	8670786664	708	816	817
8	Oakfield Lane	Parsons Lane	Heath Lane	86664	86707	8666486707	656	797	806
9	Oakfield Lane	Elm Road	Parsons Lane	86654	86655	8665486655	302	351	380
10	Oakfield Lane	Parsons Lane	Elm Road	86655	86654	8665586654	436	462	464
11	Oakfield Lane	Elm Road	Parsons Lane	86655	86664	8665586664	302	351	380
12	Darenth Rd nb	Princes Road	East Hill	86270	86638	8627086638	286	441	421
13	Darenth Rd sb	East Hill	Princes Road	86638	86270	8663886270	38	73	14
14	o A206W eb	Crayford Way	Thames Rd EB	90157	86673	9015786673	1738	2130	2106
15	o A206W wb	Thames Rd WB	Crayford Way	86673	90157	8667390157	1883	2020	2098
16	o A206E wb	Joyce Green Ln	A206 WB	86672	86673	8667286673	1417	1781	2044
17	o A206E eb	A206 EB	Joyce Green Ln	86673	86672	8667386672	1247	1537	1551
18	o A2026 Burnham Road Nb	Burnham Cres	Burnham Rd NB	86218	86673	8621886673	800	1012	856
19	o A2026 Burnham Sb	Burnham Rd NB	Burnham Cres	86673	86218	8667386218	825	1036	1052
20	A206 Bob Dunn Way eb (to L'bk int)	A206 (W)	Littlebrook Interchange (W)	29802	83365	2980283365	1103	1340	1358
21	A206 Bob Dunn Way wb (from L'bk int)	Littlebrook Interchange (W)	A206 (W)	81915	29802	8191529802	1418	2008	2351
22	Rennie Out (L'bk)	Rennie Drive	Littlebrook Interchange (W)	27264	81994	2726481994	241	399	403
23	Rennie In (L'bk)	Littlebrook Interchange (W)	Rennie Drive	83365	27264	8336527264	172	233	206
24	L'bk Overbridge eb	Littlebrook Interchange (W)	A206 (E)	81994	81912	8199481912	1373	1573	1747
25	Northbound off-slip at 1a	A282 Slip Road	Littlebrook Interchange (W)	81906	81910	8190681910	1426	1615	1951
26	Northbound on-slip at 1a	Littlebrook Interchange (W)	A282 Slip Road	81909	81914	8190981914	1107	1435	1226
27	L'bk Overbridge wb	Littlebrook Interchange (E)	A206 (W)	81992	81911	8199281911	1300	1896	1818
28	Crossways (to L'bk)	A206 (N)	Littlebrook Interchange (E)	27013	81993	2701381993	1115	1555	1455
29	Crossways (from L'bk)	Littlebrook Interchange (E)	A206 (N)	81908	27013	8190827013	1425	1846	1888
30	B2228 Cotton wb (to L'bk int)	Cotton Lane	Littlebrook Interchange (E)	27411	82006	2741182006	434	710	750
31	B2228 Cotton eb (from L'bk int)	Littlebrook Interchange (E)	Cotton Lane	82006	27411	8200627411	248	280	314
32	Southbound off-slip at 1a	A282 Slip Road	Littlebrook Interchange (E)	81913	81992	8191381992	1124	1441	1718
33	Southbound-slip on at 1a	Littlebrook Interchange (E)	A282 Slip Road	81991	81907	8199181907	1073	1257	1651
34	A226 London Rd Eb	A226 (W)	Cotton Lane	27435	27070	2743527070	383	496	495
35	A226 London Rd Wb	Cotton Lane	A226 (W)	27070	27435	2707027435	595	787	766
36	B2228 sb	Cotton Lane	A226	22318	27070	2231827070	307	359	361
37	B2228 nb	A226	Cotton Lane	27070	22318	2707022318	318	398	396
38	A226 London Rd Wb	A226 (E)	Cotton Lane	22320	27070	2232027070	565	746	711
39	A226 London Rd Eb	Cotton Lane	A226 (E)	27070	22320	2707022320	343	416	404
40	A226 Eb (west of Stone Park Rd)	A226 (W)	Stone Place Road Xroad	22307	22305	2230722305	357	461	514
41	A226 Wb (west of Stone Park Rd)	Stone Place Road Xroad	A226 (W)	22305	22307	2230522307	500	576	604
42	Stone Place Rd sb (B2228 alternative)	Stone Place Road	Stone Place Road Xroad	89595	22305	8959522305	122	142	143
43	Stone Place Rd nb (B2228 alternative)	Stone Place Road Xroad	Stone Place Road	22305	89595	2230589595	122	281	317
44	A226 wb (east of Hedge) S2	A226 (E)	Stone Place Road Xroad	20132	22306	2013222306	564	801	807
45	A226 eb (east of Hedge) S2	Stone Place Road Xroad	A226 (E)	22306	20132	2230620132	420	539	538
46	Hedge Place Rd Nb	Hedge Place Road	Stone Place Road Xroad	22303	22341	2230322341	201	338	380
47	Hedge Place Rd Sb	Stone Place Road Xroad	Hedge Place Road	22341	22303	2234122303	201	345	385
48	B255 south of A226 nb	St Clements Way	St Clements Roundabout	27029	27028	2702927028	1137	1728	1730
49	B255 south of A226 sb	St Clements Roundabout	St Clements Way	27028	27029	2702827029	940	1040	989
50	Crossing Sb	Long :0.247715	Lat :51.45587	75440	24103	7544024103	8108	8500	8206
51	Crossing Nb	Long :0.247094	Lat :51.45613	75109	75425	7510975425	3728	3818	3384
52	Crossing Nw	Long :0.246884	Lat :51.45625	75107	75424	7510775424	3194	3163	3000
53	Southbound within 1a	Long :0.240067	Lat :51.45138	81913	81907	8191381907	6984	7059	6488
54	Northbound within 1a	Long :0.241240	Lat :51.45240	81906	75108	8190675108	5845	6015	5159
55	1a1b Sb	Long :0.237572	Lat :51.44332	82506	81905	8250681905	8057	8192	8122
56	1b1a Nb	Long :0.236893	Lat :51.44387	81904	82490	8190482490	7271	8098	7193
57	PRI - sb off-slip	Long :0.239042	Lat :51.44042	81905	88691	8190588691	629	582	715
58	PRI - nb on-slip	Long :0.238378	Lat :51.43951	81902	81904	8190281904	#N/A	#N/A	#N/A

2	Increase		
3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
63	7.8%	-9	-1.1%
-4	-0.4%	-1	-0.1%
40	5.4%	6	0.7%
-16	-2.9%	24	4.6%
50	7.8%	19	2.7%
97	13.0%	-5	-0.6%
107	15.2%	1	0.2%
141	21.4%	9	1.2%
49	16.2%	28	8.0%
26	6.0%	2	0.4%
49	16.2%	28	8.0%
156	54.5%	-21	-4.7%
35	93.6%	-59	-80.8%
392	22.6%	-24	-1.1%
137	7.3%	78	3.9%
364	25.7%	264	14.8%
290	23.2%	14	0.9%
212	26.4%	-155	-15.4%
211	25.5%	16	1.5%
237	21.4%	18	1.4%
590	41.6%	343	17.1%
158	65.3%	3	0.9%
61	35.3%	-27	-11.5%
200	14.6%	174	11.0%
189	13.3%	336	20.8%
327	29.6%	-209	-14.6%
596	45.8%	-77	-4.1%
440	39.4%	-99	-6.4%
421	29.5%	41	2.2%
277	63.8%	40	5.6%
33	13.1%	34	12.0%
317	28.3%	277	19.2%
185	17.2%	394	31.3%
113	29.5%	-1	-0.3%
192	32.3%	-21	-2.6%
51	16.7%	2	0.4%
80	25.1%	-2	-0.4%
181	32.0%	-34	-4.6%
73	21.3%	-12	-2.8%
104	29.0%	54	11.7%
76	15.2%	28	4.9%
20	16.1%	1	1.0%
159	129.5%	36	12.6%
237	42.0%	6	0.8%
119	28.3%	-1	-0.2%
137	68.2%	42	12.3%
144	71.5%	40	11.7%
591	52.0%	2	0.1%
100	10.6%	-51	-4.9%
392	4.8%	-294	-3.5%
90	2.4%	-434	-11.4%
-30	-1.0%	-163	-5.1%
75	1.1%	-571	-8.1%
170	2.9%	-856	-14.2%
135	1.7%	-70	-0.9%
827	11.4%	-905	-11.2%
-47	-7.5%	133	22.8%
#N/A	#N/A	#N/A	#N/A



**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
59	M25 nb within 1b	Long :0.238530	Lat :51.44055	82482	81904	8248281904	6616	6832	6325
60	M25 sb within 1b	Long :0.239092	Lat :51.43646	81899	82391	8189982391	6801	6850	6627
61	J2 M25Sb within	Long :0.238701	Lat :51.42668	82209	81885	8220981885	4929	5086	5701
62	J2 M25Nb within	Long :0.238597	Lat :51.42691	81886	82206	8188682206	3861	4862	4343
63	PRI - DI Southern (Sb on-slip)	Long :0.239970	Lat :51.43116	81898	88690	8189888690	1536	2072	1939
64	J2 M25N to A2 Coast	Long :0.239698	Lat :51.42942	82209	81689	8220981689	1871	1764	926
65	J2 A2 Coast to M25N	Long :0.245697	Lat :51.42678	81649	81888	8164981888	#N/A	#N/A	#N/A
66	J2 to M25 nb	Long :0.238725	Lat :51.42805	81887	82206	8188782206	#N/A	#N/A	#N/A
67	M25S sb	Long :0.226463	Lat :51.41701	82483	81879	8248381879	7941	8245	8500
68	M25S nb	Long :0.226444	Lat :51.41721	82485	81886	8248581886	6457	7628	7095
69	A2 eb (W of J2)	Long :0.225549	Lat :51.42603	86162	81881	8616281881	4582	5811	5782
70	A2 wb (W of J2)	Long :0.225943	Lat :51.42584	81880	24026	8188024026	5720	5595	5836
71	A2/A2018 junction within wb	Long :0.180552	Lat :51.43512	86156	86177	8615686177	4605	4570	4862
72	A2/A2018 junction within eb	Long :0.175526	Lat :51.43775	86177	86156	8617786156	3528	4240	4218
73	A2 /A2018 junction slip	Long :0.180443	Lat :51.43495	86156	86701	8615686701	1115	1025	975
74	A2 /A2018 junction slip	Long :0.175734	Lat :51.43789	86177	86699	8617786699	953	1306	1307
75	A2 /A2018 junction slip	Long :0.176289	Lat :51.43685	86698	86177	8669886177	930	704	612
76	A2 Eb (E of J2)	Long :0.263754	Lat :51.42828	82526	81890	8252681890	5561	#N/A	#N/A
77	A2 Wb (E of J2)	Long :0.265195	Lat :51.42834	82921	82524	8292182524	7714	7423	7249
78	Coastbound off at Bean	Long :0.276099	Lat :51.43092	81890	82960	8189082960	623	#N/A	#N/A
79	A2 Westbound exit for Bean Jnct	Long :0.284442	Lat :51.43090	81917	82952	8191782952	#N/A	#N/A	#N/A
80	A2 eb within Bean	Long :0.284715	Lat :51.43119	81890	81918	8189081918	4939	#N/A	#N/A
81	A2 @ Bean Junction Westbound	Long :0.284463	Lat :51.43104	81917	81889	8191781889	6041	5644	5668
82	Coastbound on-slip at Bean	Long :0.297190	Lat :51.43063	82964	81918	8296481918	893	1059	1047
83	A2 eb (Bean to Ebb)	Long :0.303067	Lat :51.43049	82922	81984	8292281984	5832	7169	6160
84	A2 wb duplicate	Long :0.302857	Lat :51.43031	82919	82929	8291982929	7816	#N/A	#N/A
85	A2 eb (within Ebb)	Long :0.322875	Lat :51.42986	81984	81980	8198481980	4491	5030	3985
86	A2 wb (within Ebb)	Long :0.309976	Lat :51.43026	81983	81982	8198381982	7137	6373	6162
87	Coastbound off-slip at Ebb	Long :0.314310	Lat :51.43061	81984	81708	8198481708	#N/A	#N/A	#N/A
88	London off-slip (at Ebb)	Long :0.315867	Lat :51.43011	81983	81985	8198381985	#N/A	#N/A	#N/A
89	Coastbound on at Ebb	Long :0.324360	Lat :51.42964	81981	81980	8198181980	248	#N/A	#N/A
90	Westbound access to A2 from Ebbs Valley	Long :0.310142	Lat :51.43014	82375	81892	8237581892	638	861	879
91	A2026 Burnham Rd eb C1inb	Burnham Road	Priony Road	86211	86290	8621186290	925	1179	1185
92	A2026 Burnham Rd wb C1outb	Priony Road	Burnham Road	86290	86211	8629086211	872	1088	930
93	NG - Victoria Rd wb	Victoria Road	Priony Road	86208	86290	8620886290	802	1013	842
94	NG - Victoria Rd eb	Priony Road	Victoria Road	86290	86208	8629086208	821	1054	1032
95	NG - Victoria Rd eb	Victoria Road	Mill Pond Rd Rbt	86208	86210	8620886210	821	1054	1032
96	NG - Victoria Rd wb	Mill Pond Rd Rbt	Victoria Road	86210	86208	8621086208	802	1013	842
97	TCR Hythe St (S1) nb	Hythe Street	Mill Pond Rd Rbt	86280	86210	8628086210	427	610	571
98	TCR Hythe St (S1) sb	Mill Pond Rd Rbt	Hythe Street	86210	86280	8621086280	831	1147	1162
99	NG - Mill Pond East Wb	Temple Hill	Overy St	86206	86220	8620686220	986	945	948
100	NG - Mill Pond West Eb	Overy St	Temple Hill	86220	86206	8622086206	769	793	800
101	TCR-OveryNb	Overy St	Mill Pond Road	86191	86220	8619186220	428	594	554
102	TCR-OverySb	Mill Pond Road	Overy St	86220	86191	8622086191	259	311	352
103	NG - Mill Pond West eb	Mill Pond Road	Temple Hill	86210	86220	8621086220	614	574	577
104	NG - Mill Pond East wb	Temple Hill	Mill Pond Road	86220	86210	8622086210	999	1010	926
105	Temple Hill (into TH -)	Temple Hill	Temple Hill Rbt	86206	86203	8620686203	554	623	631
106	Temple Hill (out of TH -)	Temple Hill Rbt	Temple Hill	86203	86206	8620386206	829	956	958
107	Temple Hill (out of TH -)	Temple Hill Sq	Temple Hill Rbt	86627	86203	8662786203	829	956	958
108	Temple Hill (into TH -)	Temple Hill Rbt	Temple Hill Sq	86203	86627	8620386627	554	623	631
109	St Vincents Nb	Attlee Dr	St Vincent's Ave	86197	86198	8619786198	530	530	530
110	St Vincents Sb	St Vincent's Ave	Attlee Dr	86198	86197	8619886197	445	504	503
111	Temple Hill Square Eb	Temple Hill Sq	St Vincent's Ave	86627	86198	8662786198	518	599	567
112	Temple Hill Square Wb	St Vincent's Ave	Temple Hill Sq	86198	86627	8619886627	621	739	703
113	Westgate/HighfieldN	Priony Road	Westgate Rd	86240	86277	8624086277	681	785	801
114	Westgate/HighfieldN	Highfield Road N	Priony Road	86239	86240	8623986240	876	959	959
115	Westgate/HighfieldN	Westgate Rd (WNV)	Kent Road	86277	86245	8627786245	681	785	801
116	Westgate/HighfieldN	Kent Road	Westgate Rd (WNV)	86245	86277	8624586277	351	351	379

2	Increase		
3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
216	3.3%	-507	-7.4%
49	0.7%	-223	-3.3%
157	3.2%	614	12.1%
1001	25.9%	-519	-10.7%
536	34.9%	-134	-6.4%
-108	-5.8%	-838	-47.5%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
304	3.8%	256	3.1%
1170	18.1%	-533	-7.0%
1229	26.8%	-29	-0.5%
-125	-2.2%	241	4.3%
-35	-0.8%	292	6.4%
711	20.2%	-22	-0.5%
-90	-8.1%	-50	-4.9%
353	37.0%	1	0.1%
-226	-24.3%	-92	-13.1%
#N/A	#N/A	#N/A	#N/A
-292	-3.8%	-174	-2.3%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
-397	-6.6%	24	0.4%
165	18.5%	-11	-1.1%
1337	22.9%	-1009	-14.1%
#N/A	#N/A	#N/A	#N/A
539	12.0%	-1045	-20.8%
-764	-10.7%	-210	-3.3%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
223	34.9%	19	2.2%
253	27.4%	7	0.6%
216	24.7%	-158	-14.5%
211	26.3%	-171	-16.9%
233	28.3%	-22	-2.1%
233	28.3%	-22	-2.1%
211	26.3%	-171	-16.9%
183	42.7%	-39	-6.3%
316	38.0%	15	1.3%
-41	-4.1%	2	0.2%
23	3.0%	7	0.9%
166	38.9%	-41	-6.8%
52	20.0%	41	13.1%
-40	-6.5%	2	0.4%
11	1.1%	-84	-8.3%
70	12.6%	8	1.2%
127	15.3%	2	0.2%
127	15.3%	2	0.2%
70	12.6%	8	1.2%
0	0.0%	0	0.0%
59	13.2%	-1	-0.2%
82	15.8%	-32	-5.4%
118	19.0%	-36	-4.9%
105	15.4%	16	2.0%
83	9.5%	0	0.0%
105	15.4%	16	2.0%
0	-0.1%	28	8.0%

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
117	TCR_Hythe St (S1) sb	Hythe Street N	Hythe Street	86280	86257	8628086257	831	1147	1162
118	TCR_Hythe St (s1) nb	Hythe Street	Hythe Street N	86257	86280	8625786280	427	610	571
119	TC_Home Gardens 1 wb	Home Gardens	Westgate Rd	86258	86257	8625886257	349	457	436
120	TC_Home Gardens 1 eb	Westgate Rd	Home Gardens	86257	86258	8625786258	1058	1398	1411
121	TC_Westgate wb	Westgate Rd	Home Gardens	86245	86257	8624586257	657	753	761
122	TC_Westgate eb	Home Gardens	Westgate Rd	86257	86245	8625786245	351	351	379
123	TC_Home Gardens 3 eb	Home Gardens E	Home Gardens WB	86262	86260	8626286260	458	466	466
124	TC_Home Gardens 3 wb	Home Gardens EB	Home Gardens E	86260	86262	8626086262	963	1305	1304
125	TC_Home Gardens 2 wb	Home Gardens W	Home Gardens EB	86258	86260	8625886260	963	1305	1304
126	TC_Home Gardens 2 eb	Home Gardens WB	Home Gardens W	86260	86258	8626086258	458	466	466
127	East Hill Eb	East Hill	Mount Pleasant Rd	86190	86636	8619086636	579	502	557
128	East Hill Wb	Mount Pleasant Rd	East Hill	86636	86190	8663686190	649	923	916
129	Darenth Rd sb	Darenth Rd	Mount Pleasant Rd	86638	86636	8663886636	286	441	421
130	Darenth Rd nb	Mount Pleasant Rd	Darenth Road	86636	86638	8663686638	38	73	14
131	East Hill	Overy Liberty	Mount Pleasant Rd	86187	86637	8618786637	649	923	916
132	East Hill	Mount Pleasant Rd	Overy Liberty	86637	86187	8663786187	827	870	963
133	A226 The Brent (W) - wb	The Brent	Park Road Rbt	86315	86313	8631586313	714	897	904
134	A226 The Brent (W) - eb	Park Road Rbt	The Brent	86313	86315	8631386315	456	551	528
135	Park Road nwb	Park Road	Park Road Rbt	79536	86313	7953686313	332	374	359
136	Park Road seb	Park Road Rbt	Park Road	86313	79536	8631379536	419	774	764
137	A226 East Hill (E) - eb	East Hill	Park Road Rbt	86307	86313	8630786313	623	940	936
138	A226 East Hill (E) - wb	Park Road Rbt	East Hill	86313	86307	8631386307	795	886	908
139	TH - St Vin Sb	St Vincent's Rd	Watling Street Rbt	86329	27080	8632927080	445	504	503
140	TH - St Vin Nb	Watling Street Rbt	St Vincent's Rd	27080	86329	2708086329	548	546	552
141	A226 The Brent ( E) - eb	The Brent E	Watling Street Rbt	27430	27080	2743027080	744	951	926
142	A226 The Brent ( E) - wb	Watling Street Rbt	The Brent E	27080	27430	2708027430	442	565	565
143	B2500 Watling St (W) -wb	Watling Street	Watling Street Rbt	29820	27080	2982027080	640	676	698
144	B2500 Watling St (W) - eb	Watling Street Rbt	Watling Street	27080	29820	2708029820	580	675	634
145	A226 The Brent (W) - eb - duplicate	The Brent W	Watling Street Rbt	86315	27080	8631527080	456	551	528
146	A226 The Brent (W) - eb - duplicate	Watling Street Rbt	The Brent W	27080	86315	2708086315	714	897	904
147	TC - Instone	Lowfield St N	Instone Rd Jnct	86690	86685	8669086685	936	1084	1225
148	TC - Instone	Lowfield St S	Instone Rd Jnct	86661	86685	8666186685	399	327	310
149	TC - Instone	Instone Rd Jnct	Lowfield St S	86685	86661	8668586661	809	739	746
150	TC - Instone	Instone Rd Jnct	Instone Rd	86685	86225	8668586225	526	671	789
151	Highfield Rd Nb (one-way)	Instone Rd	Highfield Road N	86229	86231	8622986231	654	737	761
152	TC - Instone	Instone Rd	Highfield Road	86695	86229	8669586229	526	671	789
153	Highfield Rd - South of Instone nb	Highfield Road S	Highfield Road N	86228	86229	8622886229	129	230	238
154	Highfield Rd - South of Instone sb	Highfield Road N	Highfield Road S	86229	86228	8622986228	1	165	267
155	Westgate/HighfieldN	Highfield Road N	West Hill Junction	86239	86233	8623986233	294	310	338
156	Westgate/HighfieldN	West Hill Junction	Highfield Road N	86233	86239	8623386239	876	959	959
157	TC	Highfield Road	West Hill Junction	86632	86233	8663286233	654	737	761
158	Highfield Rd - North of Heath sb	Highfield Road	Heath Lane Rbt	86226	86659	8622686659	1	165	267
159	Highfield Rd - North of Heath nb	Heath Lane Rbt	Highfield Road	86659	86226	8665986226	129	230	238
160	Heath St wb	Heath Street	Heath Lane Rbt	86221	86659	8622186659	319	475	435
161	Heath St eb	Heath Lane Rbt	Heath Street	86659	86221	8665986221	281	311	293
162	Highfield Road S nb	Highfield Road S	Heath Lane Rbt	86658	86659	8665886659	122	67	82
163	Highfield Road S sb	Heath Lane Rbt	Highfield Road S	86659	86658	8665986658	194	206	262
164	Heath Lane (lower) - eb	Heath Lane	Heath Lane Rbt	86657	86659	8665786659	483	529	536
165	Heath Lane (lower) - wb	Heath Lane Rbt	Heath Lane	86659	86657	8665986657	320	489	527
166	Lowfield St (north of B2174) sb	Lowfield Street N	B2174/A255 Junction	86222	86641	8622286641	553	574	598
167	Lowfield St (north of B2174) nb	B2174/A255 Junction	Lowfield Street N	86641	86222	8664186222	615	751	743
168	A225 Wb	Princes Road E	B2174/A255 Junction	86704	86641	8670486641	1018	1064	1186
169	A225 Eb	B2174/A255 Junction	Princes Road E	86641	86704	8664186704	1053	1165	1147
170	A225 Nb	Lowfield Street S	B2174/A255 Junction	86648	86641	8664886641	823	929	925
171	A225 Sb	B2174/A255 Junction	Lowfield Street S	86641	86648	8664186648	961	990	1066
172	B2174 eb	Princes Road W	B2174/A255 Junction	86003	86641	8600386641	880	990	977
173	B2174 wb	B2174/A255 Junction	Princes Road W	86641	86003	8664186003	646	638	722
174	Highfield Road S sb	Highfield Rd S	B2174 Junction	86658	86642	8665886642	194	206	262

2	Increase		
3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
316	38.0%	15	1.3%
183	42.7%	-39	-6.3%
108	30.9%	-21	-4.5%
340	32.1%	12	0.9%
96	14.6%	8	1.0%
0	-0.1%	28	8.0%
8	1.7%	0	0.0%
342	35.5%	-1	-0.1%
342	35.5%	-1	-0.1%
8	1.7%	0	0.0%
-77	-13.3%	55	11.0%
274	42.2%	-7	-0.8%
156	54.5%	-21	-4.7%
35	93.6%	-59	-80.8%
274	42.2%	-7	-0.8%
43	5.2%	93	10.7%
182	25.5%	7	0.8%
95	20.9%	-23	-4.2%
42	12.5%	-15	-4.0%
354	84.5%	-10	-1.3%
317	50.8%	-4	-0.4%
91	11.4%	22	2.5%
59	13.2%	-1	-0.2%
-2	-0.4%	6	1.1%
207	27.9%	-26	-2.7%
123	27.8%	0	0.0%
37	5.7%	21	3.1%
96	16.5%	-42	-6.2%
95	20.9%	-23	-4.2%
182	25.5%	7	0.8%
147	15.7%	142	13.1%
-72	-18.1%	-17	-5.2%
-70	-8.7%	7	1.0%
145	27.6%	118	17.6%
83	12.7%	24	3.3%
145	27.6%	118	17.6%
101	78.8%	8	3.6%
164	24094.1%	102	62.1%
16	5.4%	28	8.9%
83	9.5%	0	0.0%
83	12.7%	24	3.3%
164	24094.1%	102	62.1%
101	78.8%	8	3.6%
156	48.8%	-40	-8.4%
29	10.4%	-18	-5.8%
-55	-45.4%	15	23.1%
12	6.3%	56	27.1%
47	9.7%	6	1.2%
168	52.5%	38	7.8%
21	3.8%	24	4.2%
137	22.3%	-9	-1.2%
47	4.6%	122	11.4%
113	10.7%	-18	-1.6%
106	12.8%	-4	-0.4%
29	3.0%	76	7.7%
99	11.3%	-3	-0.3%
-9	-1.4%	84	13.3%
12	6.3%	56	27.1%

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
175	Highfield Road S nb	B2174 Junction	Highfield Rd S	86642	86658	8664286658	122	67	82
176	B2174 Wb	Princes Road E	B2174 Junction	86003	86642	8600386642	599	505	641
177	B2174 Eb	B2174 Junction	Princes Road E	86642	86003	8664286003	770	788	842
178	B2174 Eb	Princes Road W	B2174 Junction	86004	86642	8600486642	576	581	580
179	B2174 Wb	B2174 Junction	Princes Road W	86642	86004	8664286004	477	438	559
180	Lowfield St (south of Heath) nb	B2174	A226	86222	86660	8622286660	615	751	743
181	Lowfield St (south of Heath) sb	B2174	A226	86660	86222	8666086222	553	574	598
182	A225 Nb	B258	B2174	86647	86648	8664786648	823	929	925
183	A225 Sb	B258	B2174	86648	86647	8664886647	961	990	1066
184	A2018 eb	A2(T)	A226	86684	86683	8668486683	758	869	855
185	A2018 wb	A2(T)	A226	86683	86684	8668386684	799	1058	1106
186	A226 eb	LA Boundary	A2018	86339	86282	8633986282	293	333	341
187	A226 Wb	LA Boundary	A2018	86282	86339	8628286339	369	589	667
188	Highfield Rd Nb (one-way)	A225	A226 West Hill	86231	86632	8623186632	654	737	761
189	PRI - A225Wb	A296	A282(T)	81900	81902	8190081902	1019	1316	1445
190	PRI - A225Eb	A296	A282(T)	81901	81900	8190181900	#N/A	#N/A	#N/A
191	A225 Princes eb	A225 Lowfield St	A296	86292	86295	8629286295	839	898	900
192	A225 Princes wb	A225 Lowfield St	A296	86295	86292	8629586292	1052	1166	1346
193	West Hill (west of Priory H) wb	A2018	A226 Highfield Road North	86265	86670	8626586670	592	685	733
194	West Hill (west of Priory H) eb	A2018	A226 Highfield Road North	86670	86265	8667086265	517	642	643
195	A225 Nb	A20	B258	90050	44053	9005044053	582	731	724
196	A225 Sb	A20	B258	44053	90050	4405390050	600	657	687
197	Overy Liberty/Market St	A225	A226 Home Gardens	86689	86690	8668986690	936	1084	1225
198	A226 Stone Eb	A296	A206	22322	27505	2232227505	357	461	514
199	A226 Stone Wb	A296	A206	27505	22322	2750522322	500	576	604
200	Crossways	A206 Crossway Blvd	A206 Galleon Blvd	22250	27014	2225027014	768	1097	1102
201	Crossways	A206 Galleon Blvd	A206 Crossway Blvd	27014	22250	2701422250	712	1058	958
202	A206 Crossways	A206 Galleon Blvd	Claire Causeway	27014	27007	2701427007	592	973	946
203	A206 Crossways	Claire Causeway	A206 Galleon Blvd	27007	27014	2700727014	1413	1874	1845
204	A206 Crossways E eb S2	Claire Causeway	Station Road	27007	27009	2700727009	#N/A	#N/A	#N/A
205	A206 Crossways wb E S2	Station Road	Claire Causeway	27009	27007	2700927007	1429	1877	1845
206	A206 (north of Steele) nb	Steele Ave	A206	27010	27009	2701027009	1664	2145	2076
207	A206 (north of Steele) sb	A206	Steele Ave	27009	27010	2700927010	852	1294	1196
208	A206 (north of A226) nb	St Clements Rbt	Steele Ave	27028	27010	2702827010	1531	1988	1928
209	A206 (north of A226) sb	Steele Ave	St Clements Rbt	27010	27028	2701027028	852	1294	1196
210	Crossways zone loader (arr)	Galleon Blvd N	Crossways	27014	27017	2701427017	362	486	521
211	Crossways zone loader (dep)	Crossways	Galleon Blvd N	27017	27014	2701727014	146	251	249
212	Crossways	Galleon Blvd S	Crossways	22235	27014	2223527014	48	76	74
213	Crossways	Crossways	Galleon Blvd S	27014	22235	2701422235	708	781	846
214	Crossways zone loader (arr)	Claire Causeway	Crossways	27007	89422	2700789422	0	0	0
215	Crossways zone loader (dep)	Crossways	Claire Causeway	89422	27007	8942227007	48	101	108
216	A226 eb (east of B255)	Mounts Road	Rbt	27028	28053	2702828053	545	954	1002
217	A226 wb (east of B255)	Rbt	Mounts Road	28053	27028	2805327028	1161	1287	1285
218	A226 eb (west of B255)	Sanderling Way	Rbt	20132	27028	2013227028	568	717	715
219	A226 wb (west of B255)	Rbt	Sanderling Way	27028	20132	2702820132	701	942	959
220	B255 south of A226 nb	B225	Rbt	27027	27029	2702727029	1137	1728	1730
221	B255 south of A226 sb	Rbt	B225	27029	27027	2702927027	940	1040	989
222	B225 north of Mounts nb	Mounts Road	Castleridge Drive	27026	89424	2702689424	1085	1682	1692
223	B225 north of Mounts sb	Castleridge Drive	Mounts Road	89424	27026	8942427026	962	1058	1004
224	CG - A296W Eb	A296 Princes Road	Clarendon Gardens Rbt	81997	22340	8199722340	387	445	554
225	CG -A296W Wb	Clarendon Gardens Rbt	A296 Princes Road	22340	81997	2234081997	553	718	614
226	CG -B2500 Eb	Watling Street	Clarendon Gardens Rbt	22343	29914	2234329914	757	918	765
227	CG -B2500 Wb	Clarendon Gardens Rbt	Watling Street	29914	22343	2991422343	661	764	764
228	CG - A296E Eb	Clarendon Gardens Rbt	A296 Watling Street	27506	22338	2750622338	993	1195	1195
229	CG - A296W Eb	A296 Watling Street	Clarendon Gardens Rbt	22338	27506	2233827506	921	1002	1019
230	CG - Gore Road nb	Gore Road	Clarendon Gardens Rbt	22332	22339	2233222339	458	664	663
231	CG - Gore Road sb	Clarendon Gardens Rbt	Gore Road	22339	22332	2233922332	459	718	780
232	A296 (E of DV) Eb S2	A296	Bean Junction	27506	22243	2750622243	775	1031	981

2	Increase		
3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
-55	-45.4%	15	23.1%
-95	-15.8%	136	26.9%
17	2.3%	54	6.9%
5	0.9%	-2	-0.3%
-39	-8.2%	121	27.5%
137	22.3%	-9	-1.2%
21	3.8%	24	4.2%
105	12.8%	-4	-0.4%
29	3.0%	76	7.7%
111	14.7%	-14	-1.6%
259	32.4%	48	4.5%
40	13.7%	8	2.4%
220	59.8%	78	13.3%
83	12.7%	24	3.3%
297	29.1%	129	9.8%
#N/A	#N/A	#N/A	#N/A
59	7.0%	2	0.3%
113	10.8%	181	15.5%
93	15.7%	48	6.9%
126	24.4%	1	0.1%
150	25.8%	-8	-1.0%
57	9.5%	30	4.5%
147	15.7%	142	13.1%
104	29.0%	54	11.7%
76	15.2%	28	4.9%
328	42.8%	5	0.5%
346	48.6%	-101	-9.5%
380	64.2%	-27	-2.8%
461	32.6%	-29	-1.6%
#N/A	#N/A	#N/A	#N/A
448	31.4%	-33	-1.7%
482	29.0%	-69	-3.2%
442	51.9%	-98	-7.6%
457	29.9%	-60	-3.0%
442	51.9%	-98	-7.6%
124	34.3%	35	7.2%
105	72.2%	-2	-0.8%
28	59.5%	-2	-2.2%
73	10.2%	65	8.3%
0	#DIV/0!	0	#DIV/0!
54	112.8%	7	6.7%
409	74.9%	48	5.0%
126	10.8%	-2	-0.2%
149	26.2%	-1	-0.2%
241	34.4%	17	1.8%
591	52.0%	2	0.1%
100	10.6%	-51	-4.9%
597	55.0%	10	0.6%
95	9.9%	-53	-5.0%
58	15.0%	109	24.6%
165	29.8%	-104	-14.5%
162	21.3%	-153	-16.7%
123	18.6%	-20	-2.6%
202	20.4%	0	0.0%
82	8.9%	16	1.6%
206	44.9%	-1	-0.1%
259	56.3%	62	8.7%
256	33.0%	-50	-4.9%

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
233	A296 (E of DV) Wb S2	Bean Junction	A296	22243	27506	2224327506	1088	1339	1366
234	Former B2174 Nb (from DV)	St James Lane	Rbt	27506	22301	2750622301	301	422	459
235	Former B2174 Sb (to DV)	Rbt	St James Lane	22301	27506	2230127506	401	626	643
236	Darenth Valley out			98615	27506	9861527506	266	160	153
237	Darenth Valley in			27506	98615	2750698615	607	480	546
238	A226 Swanscombe Eb	Manor Way Staggered Jnct	A226 London Road E	20119	27500	2011927500	460	931	905
239	A226 east of K'hall eb	A226 London Road W	Manor Way Staggered Jnct	20126	20119	2012620119	515	1008	992
240	A226 west of K'hall eb	Manor Way Staggered Jnct	A226 London Road W	20119	20126	2011920126	903	1134	1054
241	Craylands Lane Nb	Craylands Lane	Manor Way Staggered Jnct	89428	20119	8942820119	176	227	234
242	Craylands Lane Sb	Manor Way Staggered Jnct	Craylands Lane	20119	89428	2011989428	162	242	253
243	A226 Swanscombe Eb	A226 London Road	High Street	27500	20118	2750020118	460	931	905
244	A226 Swanscombe Wb	High Street	A226 London Road	20118	27500	2011827500	835	947	864
245	A226 Swanscombe Wb	A226 Galley Hill Road	High Street	23178	20118	2317820118	747	924	829
246	A226 Swanscombe Eb	High Street	A226 Galley Hill Road	20118	23178	2011823178	376	971	969
247	Swanscombe High St Nb	High Street	A226	20226	20118	2022620118	247	425	433
248	Swanscombe High St Sb	A226	High Street	20118	20226	2011820226	243	363	333
249	Lower Rd (nb - arr)			23178	68667	2317868667	224	219	223
250	Lower Rd (sb - dep)			68667	23178	6866723178	98	106	106
251	A226 Northfleet Eb	A226	B2175 Stonebridge Road	23178	23177	2317823177	415	855	844
252	A226 Northfleet Wb	B2175 Stonebridge Road	A226	23177	23178	2317723178	923	987	873
253	Thames Way under HS (neb)	Thames Way	Ebbs Car Park	98581	23177	9858123177	470	381	368
254	Thames Way under HS (swb)	Ebbs Car Park	Thames Way	23177	98581	2317798581	339	491	507
255	Thames Way (nwb)	Thames Way	Ebbs Car Park	81202	98581	8120298581	527	426	419
256	Thames Way (seb)	Ebbs Car Park	Thames Way	98581	81202	9858181202	321	474	493
257	oo Ebbsfleet Gateway eb			23185	89364	2318589364	393	529	523
258	oo Ebbsfleet Gateway wb			89364	23185	8936423185	998	1354	1299
259	oo International Way nb			23185	89646	2318589646	340	#N/A	#N/A
260	oo International Way sb			89646	23185	8964623185	13	#N/A	#N/A
261	oo B259 sb			89430	99997	8943099997	#N/A	#N/A	#N/A
262	oo B259 nb			99997	89430	9999789430	#N/A	#N/A	#N/A
263	oo A2260 south of B259 nb			81985	23185	8198523185	#N/A	#N/A	#N/A
264	oo A2260 south of B259 sb			23185	81985	2318581985	#N/A	#N/A	#N/A
265	A225 Hawley Road Northbound			26013	86727	2601386727	680	756	713
266	A225 Hawley Road Southbound			86727	26013	8672726013	467	542	558
267	B260 Green Street Green Road Eastbound			89426	22334	8942622334	933	1020	1002
268	B260 Green Street Green Road Westbound			22334	89426	2233489426	511	635	667
269	B255 Bean Lane (north of A2 North Roundabout) Northbound			83356	83359	8335683359	1206	#N/A	#N/A
270	B255 Bean Lane (north of A2 North Roundabout) Southbound			83358	89865	8335889865	420	#N/A	#N/A
271	A296 Roman Road Northbound			27033	27035	2703327035	893	#N/A	#N/A
272	B262 Hall Road Southbound			83355	28510	8335528510	1584	1732	1863
273	B262 Hall Road Eastbound			28510	83355	2851083355	1561	1738	1823
274	Parsonage Lane Southbound			44053	29908	4405329908	654	861	854
275	Parsonage Lane Northbound			29908	44053	2990844053	840	852	874
276	A225 Main Road Southbound			90062	90050	9006290050	497	#N/A	#N/A
277	A225 Main Road Northbound			90050	90062	9005090062	689	#N/A	#N/A
278	B260 Main Road Southbound			26637	90788	2663790788	351	427	425
279	B260 Main Road Northbound			90788	26637	9078826637	512	706	602
280	B255 Whitehill Road Northbound			90788	26554	9078826554	485	537	558
281	B255 Whitehill Road Eastbound			26554	90788	2655490788	245	273	337
282	New Barn Road Westbound			47136	26899	4713626899	487	#N/A	#N/A
283	New Barn Road Eastbound			26899	47136	2689947136	376	#N/A	#N/A
284	A226 The Brent Southbound			27431	27432	2743127432	383	496	495
285	A226 The Brent Northbound			27432	27431	2743227431	595	787	766
286	B2500 Watling Street Southbound			22346	22347	2234622347	322	385	375
287	B2500 Watling Street Eastbound			22347	22346	2234722346	457	490	571
288	B260 Trolling Down Hill Westbound			22334	86297	2233486297	660	692	674
289	B260 Trolling Down Hill Eastbound			86297	22334	8629722334	415	424	344
290	A225 Hawley Road Eastbound			44053	26013	4405326013	603	621	573

2	Increase	3	Decrease
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
251	23.1%	27	2.0%
121	40.4%	37	8.7%
225	56.0%	17	2.7%
-106	-39.9%	-7	-4.3%
-128	-21.0%	67	13.9%
472	102.5%	-27	-2.9%
493	95.8%	-17	-1.6%
230	25.5%	-79	-7.0%
51	29.0%	7	3.1%
80	49.1%	11	4.4%
472	102.5%	-27	-2.9%
113	13.5%	-83	-8.8%
178	23.8%	-96	-10.3%
595	158.2%	-1	-0.1%
178	72.0%	8	1.8%
120	49.3%	-30	-8.3%
-5	-2.0%	4	1.6%
8	8.1%	0	0.0%
440	105.9%	-11	-1.3%
64	7.0%	-114	-11.6%
-89	-19.0%	-13	-3.5%
153	45.0%	15	3.1%
-102	-19.3%	-6	-1.5%
153	47.5%	19	4.0%
136	34.6%	-7	-1.3%
356	35.6%	-55	-4.1%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
76	11.2%	-42	-5.6%
75	16.1%	16	3.0%
87	9.3%	-19	-1.8%
124	24.2%	32	5.1%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
148	9.3%	131	7.6%
178	11.4%	85	4.9%
208	31.8%	-7	-0.8%
11	1.3%	23	2.7%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
76	21.6%	-2	-0.4%
194	37.9%	-104	-14.7%
52	10.8%	20	3.8%
27	11.2%	65	23.7%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
113	29.5%	-1	-0.3%
192	32.3%	-21	-2.6%
63	19.5%	-10	-2.5%
33	7.3%	81	16.5%
32	4.9%	-18	-2.6%
9	2.1%	-80	-18.9%
18	2.9%	-48	-7.7%

**AM peak hour comparisons (Actual PCUs)**

Note : Only provided when SATURN networks are consistent

Ref	Link	From	To	A node	B node	AB pair	2019	2036 No LTC	2036 with LTC
291	A225 Hawley Road Eastbound			26013	44053	2601344053	487	549	559
292	Clement Street Westbound			44077	44053	4407744053	155	246	238
293	Clement Street Southbound			44053	44077	4405344077	207	221	234
294	A282 southbound exit for A2 Eastbound			81899	81898	8189981898	627	674	781
295	A282 northbound distributor between A2 and A296xA225 Southbound			81887	88688	8188788688	#N/A	#N/A	#N/A
296	A2 westbound within the M25xA282 Junction Northbound			81625	81880	8162581880	4098	3820	4157
297	A2 eastbound within the M25xA282 Junction Westbound			81881	81623	8188181623	2366	3578	3545
298	M25 J2 anti-clockwise exit Northbound			81886	81883	8188681883	2500	2500	2500
299	A2 westbound access from M25xA282 Southbound			81882	81880	8188281880	1622	1775	1679
300	A2 eastbound access from M25xA282 Northbound			81624	81623	8162481623	#N/A	#N/A	#N/A
301	A2 eastbound after M25 J2 roundabout access Westbound			81881	81623	8188181623	2366	3578	3545
302	A2 westbound before M25 J2 roundabout exit Eastbound			81649	81625	8164981625	5603	5453	5934
303	B255 Bean Lane (south of A2 South Roundabout) Westbound			82952	26016	8295226016	#N/A	#N/A	#N/A
304	B255 Bean Lane (south of A2 South Roundabout) Westbound			26016	82952	2601682952	#N/A	#N/A	#N/A
305	A2 westbound between A2260 and B259 Eastbound			82915	81983	8291581983	7550	7347	7144
306	A2 westbound exit for A2260 Northbound			81894	81893	8189481893	618	707	886
307	A2 westbound within the A2260 Junction Eastbound			81894	81895	8189481895	6741	6613	6376
308	B260 Green St Green Rd (East of Ladywood Rd) Eastbound			47126	89412	4712689412	414	537	540
309	B260 Green St Green Rd (East of Ladywood Rd) Northbound			89412	47126	8941247126	628	694	627
310	Elizabeth Street Southbound			22308	27411	2230827411	97	246	277
311	Elizabeth Street Westbound			27411	22308	2741122308	41	37	42
312	A226 London Road (West of Oak Road) Eastbound			22307	27505	2230727505	500	576	604
313	A226 London Road (West of Oak Road) Westbound			27505	22307	2750522307	357	461	514
314	Southfleet Road (North of the roundabout) Eastbound			23185	99998	2318599998	#N/A	#N/A	#N/A
315	Southfleet Road (North of the roundabout) Westbound			99998	23185	9999823185	#N/A	#N/A	#N/A
316	Alkerden Lane (west of Gilbert Close) Eastbound			20231	89440	2023189440	190	182	190
317	Alkerden Lane (west of Gilbert Close) Westbound			89440	20231	8944020231	52	66	63
318	A226 Thames Way Eastbound			28512	98579	2851298579	824	1286	1176
319	A226 Thames Way Southbound			98579	28512	9857928512	110	209	152
320	B262 Station Road Northbound			76743	26019	7674326019	614	826	812
321	B262 Station Road Westbound			26019	76743	2601976743	313	512	491
322	B262 Betsham Road Eastbound			47128	26632	4712826632	494	610	535
323	B262 Betsham Road Eastbound			26632	47128	2663247128	116	217	210
324	Warren Road Northbound			26901	26898	2690126898	0	0	0
325	Warren Road Southbound			26898	26901	2689826901	0	0	0
326	B255 Highcross Road Southbound			26632	26554	2663226554	123	126	141
327	B255 Highcross Road Northbound			26554	26632	2655426632	367	333	366
328	Red Street Southbound			26020	26898	2602026898	27	29	24
329	Red Street Northbound			26898	26020	2689826020	22	13	12
330	Park Corner Road Eastbound			76747	26897	7674726897	88	#N/A	#N/A
331	Gore Road Westbound			22334	22333	2233422333	404	497	376
332	Gore Road Eastbound			22333	22334	2233322334	226	380	372
333	Ship Lane Westbound			44005	44059	4400544059	50	#N/A	#N/A
334	Ship Lane Northbound			44059	44005	4405944005	39	#N/A	#N/A
335	A2260, 385m south of International Way.			89364	98580	8936498580	393	#N/A	#N/A
336	A2260, 385m south of International Way.			98580	89364	9858089364	998	#N/A	#N/A

2	Increase		
-3	Decrease		
2019 to 2036 No LTC	% change	2036 No LTC to 2036 with LTC	% change
63	12.9%	10	1.8%
91	58.9%	-9	-3.5%
13	6.3%	14	6.3%
47	7.4%	107	15.9%
#N/A	#N/A	#N/A	#N/A
-278	-6.8%	337	8.8%
1212	51.2%	-33	-0.9%
0	0.0%	0	0.0%
153	9.4%	-95	-5.4%
#N/A	#N/A	#N/A	#N/A
1212	51.2%	-33	-0.9%
-150	-2.7%	481	8.8%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
-203	-2.7%	-203	-2.8%
89	14.4%	179	25.4%
-128	-1.9%	-237	-3.6%
123	29.6%	3	0.6%
66	10.5%	-67	-9.6%
149	152.9%	31	12.7%
-4	-10.0%	6	15.3%
76	15.2%	28	4.9%
104	29.0%	54	11.7%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
-8	-4.4%	8	4.3%
14	27.0%	-3	-4.2%
462	56.1%	-110	-8.6%
99	90.4%	-57	-27.4%
211	34.4%	-14	-1.7%
199	63.5%	-20	-3.9%
116	23.6%	-75	-12.4%
101	87.0%	-7	-3.0%
0	-66.7%	0	0.0%
0	#DIV/0!	0	#DIV/0!
3	2.4%	15	12.1%
-34	-9.2%	32	9.7%
2	7.5%	-5	-16.4%
-10	-44.1%	0	-1.2%
#N/A	#N/A	#N/A	#N/A
94	23.2%	-121	-24.3%
153	67.7%	-8	-2.0%
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A

# Appendix D Node Throughput

	Flows PCU					
	AM_Base_2019	AM_no_LTC_2036	AM_LTC_2036	PM_Base_2019	PM_no_LTC_2036	PM_LTC_2036
A226/Pilgrims Rd / zone 7094 (base)	1492	2330	2192	1142	2525	2427
A226/Craylands Lane (4 arm in future for zone 7094)	1566	2395	2281	1339	2513	2357
Craylands La/Milton St mini-rbt	548	749	728	435	821	831
Alkerden Lane/Milton St mini-rbt	242	249	253	179	296	263
Position of The Avenue, Greenhithe	2946	4060	3976	2454	4178	4139
Knockhall/A226	1314	1882	1803	1037	1906	1841
Mounts/A226	1749	2297	2320	1509	2362	2403
A226/Sanderling (Stone Castle)	1393	1816	1791	1569	2031	2013
old_Swanscombe loader	0	0	0	0	0	0
Alkerden Lane	18	21	22	112	53	47
Alkerden Lane	18	21	22	112	53	47
Alkerden Lane	242	249	253	179	296	263
Milton St	224	228	232	67	243	216
A226/Stone Hill Place	1118	1441	1479	1437	1871	1717
Cotton Lane (non B road)	139	296	328	195	397	256
B2228 Cotton Lane (north of A226)	631	782	775	714	737	707
2.CG (Gore Road)	1848	2551	2457	1624	2182	2200
2.CG (A226W)	1768	2269	2223	1840	2122	2119
A226/Hedge Hill Place	1262	1741	1754	1546	2165	2017
A226/B2175 W	1937	2584	2438	1592	2856	2784
A226/Lower Rd	1440	2114	1974	1084	2335	2251
A2260/B259 rbt	2708	2987	2824	2429	3041	3107
Dartford Crossing - southbound	8142	9449	8206	7373	8658	7123
A282 - sb	8142	9449	8206	7373	8658	7123
Alkerden Lane	18	21	22	112	53	47
A206 Crossways (approx centre)	2140	3165	3003	1834	3121	2987
Greenhithe rbt	2602	3673	3442	2234	3533	3355
Steele Avenue	2716	3824	3543	2349	3669	3436
A206 Crossways at Anchor Boulevard	2611	3651	3460	2129	3506	3452
A206 Crossways at Galleon Boulevard	2447	3530	3384	2074	3483	3364
A296/B255	1952	3110	3086	1881	3009	2846
B255 Bluewater rbt/EQ access	2399	3725	3517	2523	4483	4533
A226/A206/B255 rbt	3878	5270	5061	3802	5522	5352
B255 / south of A226	2208	2971	2833	2455	3359	3224
A296 slip (to A2) / EQ access	911	2213	2209	2045	1891	2240
Alkerden La	380	522	467	296	579	540
A226 lights/Cotton Lane	1330	1654	1604	1393	1639	1627
The Brent (A226/B2500) rbt	2381	2741	2694	2450	2730	2698

Rennie Way	413	664	635	423	695	716
A226/ Lingfield Ave / Mile Stone Rd	1051	1324	1290	1145	1407	1380
A226/St Johns Rd	1051	1324	1290	1145	1407	1380
Manor Way proxy	1335	1918	1789	1052	1949	1776
Darenth Valley rbt on A296	2776	3296	3287	2601	3153	3009
A226 west of McDonalds	1748	2296	2319	1508	2360	2401
A226/B262 Springhead Rd	2282	2994	2850	2051	2734	2766
Littlebrook-W/A206 Bob Dunn	2721	3843	4120	2728	4610	4891
2.CG (B2500)	2028	2480	2398	1918	2184	2196
2.CG (A226E)	2362	2917	2840	2330	2694	2727
A225/S Hinterlands	2110	2462	2456	2212	2616	2615
A282Nb - west	3301	3751	3119	3125	3660	3199
A282Nb - split	6043	6796	5331	5801	6526	5366
A282Nb - east	3861	4596	3497	3629	4344	3678
Dartford Crossing - northbound west tunnel	3301	3751	3119	3125	3660	3199
Dartford Crossing - northbound east tunnel	3861	4596	3497	3629	4344	3678
Dartford Crossing - northbound west tunnel	3301	3751	3119	3125	3660	3199
Dartford Crossing - northbound east tunnel	3861	4596	3497	3629	4344	3678
Park Road	1108	1629	1576	1381	1698	1651
J2	2547	#N/A	#N/A	1954	#N/A	#N/A
J2	3915	#N/A	#N/A	3152	#N/A	#N/A
A2260 Ebbsfleet E rbt	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
J2	2889	#N/A	#N/A	2626	#N/A	#N/A
J2	4143	#N/A	#N/A	3628	#N/A	#N/A
A226 E at Princes (4-arm)	3545	4139	4323	3268	4286	4393
Princes Int J1b sb off-slip	1906	2851	2532	2469	2907	2983
Princes Int - NW node	1717	2945	2546	2318	3040	3072
Princes Int J2 nb off-slip	1651	2255	2357	1787	2245	2339
Littlebrook/A282N	7543	8621	7432	6619	7851	6830
Littlebrook/A282S	8091	9158	8186	7756	8855	7963
Littlebrook-E/Crossways	1455	2044	1980	868	1527	1400
Littlebrook - On A282 Nb on-slip	1120	1551	1285	953	1479	1511
Littlebrook - On A282 Nb off-slip	1500	1824	2101	818	1325	1464
Littlebrook-A282 overbridge Wb	1343	2010	1848	1361	2086	2067
Littlebrook-A282 overbridge Eb	1407	1741	1903	1360	2213	2463
Littlebrook/A282S	8142	9449	8206	7373	8658	7123
Littlebrook/A282N	3301	3751	3119	3125	3660	3199
Littlebrook (at A282Nb offslip to Bob Dunn)	1505	2197	2465	1369	2272	2351
A2260 Ebbsfleet W rbt	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Princes Int - SE node	1693	2405	2281	1761	2426	2482



Littlebrook-E (At 282Sb on-slip)	2030	2783	2905	2192	2988	3469
Littlebrook-E (at A282SB off-slip)	2081	3074	2926	1809	2791	2629
Littlebrook-E (at Crossways ingress)	1847	2368	2481	2200	3371	3676
Littlebrook-W (Rennie Way ingress)	1840	2380	2475	1809	2957	3256
Littlebrook-W (at A282Nb on-slip)	1090	1736	1706	1307	2094	2143
Littlebrook-W (at A282Nb off-slip)	1307	1822	1906	1165	1754	1813
Littlebrook-E (Crossways Ingress)	1277	1639	1870	1255	1948	2043
Littlebrook-E/Cotton Lane	685	1030	1092	593	960	1008
Littlebrook-W (Bob Dunn Way ingress)	1771	2245	2305	1603	2612	2882
Dartford Crossing - southbound	16283	18898	16413	14746	17316	14247
Beech Rd/Cedar Rd	741	846	825	619	947	938
Spital St/Kent St	24	36	44	22	37	54
1.Overy St / Home Gardens	1262	1617	1657	1393	1858	1803
1.x	1478	1800	1794	1576	2086	1984
1.x	260	312	353	267	285	336
1.East Hill/Home Gardens	2137	2516	2646	2157	2761	2710
Overy St	260	312	353	267	285	336
Overy St (one-way)	670	918	914	587	818	884
St Vincents	1003	1077	1076	1064	1132	1146
St Vincents / Littlebrook Manor	2031	2314	2278	2105	2475	2471
Oakfield Lane/Leyton X Rd	2230	2443	2447	2108	2056	2111
Burroughs Drive (Temple Hill end)	1388	1618	1623	1305	1630	1622
Central Rd/Temple Hill	1768	1807	1809	1602	1797	1821
Hythe St N	1636	2199	1974	1657	2305	2196
A2026 Victoria Rd/Mill Pond Rd rbt	2265	3170	2992	2192	3289	3158
Mill Pond/Overy St	2017	2172	2127	1854	2191	2224
Highfield Rd/Summerhill S	129	401	513	33	76	84
Instone/Highfield	682	912	1039	710	814	826
Highfield/Summerhill N	682	746	770	710	814	826
West Hill/ Highfield Rd	1550	1769	1823	1582	1899	1965
Miskin Rd - excluded area	0	0	0	0	0	0
Westgate/Priory	1408	1559	1588	1621	1830	1869
Westgate Rd / Kent Rd	1097	1220	1259	1288	1391	1408
Hythe St/ Home Gardens	1932	2499	2477	2077	2704	2586
Station rbt - 7197 zone loader	3374	4199	4178	3775	4726	4411
Station rbt	1478	1800	1794	1576	1991	1847
Priory Road/Priory Place	735	812	812	787	982	1019
Darenth/B2174 Princes	2163	2503	2596	1850	2790	2855
Hythe St mid-point	1294	1871	1824	1204	1808	1705
Miskin Rd/A2018	378	432	390	427	313	322

A206(Burnham/Victoria)/Priory Rd (S)	1964	2584	2377	1985	2848	2799
Park Rd/The Brent	1744	2260	2235	2162	2541	2483
St Vincents	1003	1077	1076	1064	1132	1146
B2174 Princes/Heathlands	1191	1284	1307	1249	1500	1497
Lowfield St	1480	1537	1544	1408	1671	1617
West Hill	1169	1370	1425	1192	1454	1510
B2174/ Heath St (Upper) lights	1760	2003	2143	1496	2293	2277
Highfield St	682	746	770	710	814	826
Darenth/East Hill 1	1602	1899	1920	1756	2188	2203
Darenth/East Hill 2	1563	1823	1906	1684	2112	2128
Darenth Avenue	313	533	449	269	542	587
Fastrack/ B2174Princes	2105	2318	2414	1850	2725	2790
A225 / B2174 lights	3316	3655	3784	2989	3965	3983
Highfield / Princes B2174	1387	1335	1531	1239	1998	1973
A225/Oakfield Lane	2125	2369	2445	2120	2244	2216
B258/A225 3-arm	2287	2631	2640	2320	2612	2567
B2174/ Heath St (Lower) lights	1760	2003	2142	1496	2293	2277
Off Heath Lane (Upper)	1042	1325	1367	979	1197	1165
Highfield Rd rbt	934	1258	1342	784	1165	1136
Heath/Lowfield	1632	1847	1826	1483	1841	1814
Lowfield St - 7500 zone loader	3063	3099	3094	3163	3825	3703
A206 Bob Dunn west	2769	4064	4296	2603	4765	5019
A206/A2026 rbt	4015	5097	5118	3841	5430	5580
A206 Bob Dunn no zone	0	0	0	0	0	0
A206 The Bridge dev	259	862	873	193	921	934
B2174 Princes Road/A2018	2628	2833	2938	2432	2988	2940
Lowfield/Instone	1370	1424	1549	1257	1549	1484
Home Gardens	1478	1800	1794	1576	2086	1984
A2/A2018 junvtion (NW node)	2517	3411	3358	2589	2423	2344
Oakfield Lane/Heath Lane	1846	2223	2205	1853	2106	2192
NSS/Ebbsfleet Green	142	479	503	41	519	544
St Clements Lake	219	219	219	189	189	189
Proxy for Craylands Primary rbt	436	563	559	458	600	620
B259/Whitecliff Rd	1057	1573	1527	1122	1649	1627
A206 Bob Dunn east	2562	3576	3816	2545	4383	4661
A206/A2260	1596	2307	2175	1389	2247	2216
A2260/International Way signals	1458	1939	1821	1358	1568	1463
LTC - Nb	#N/A	#N/A	4014	#N/A	#N/A	3444
LTC - Sb	#N/A	#N/A	3088	#N/A	#N/A	3853
Springhead Bridge	#N/A	788	750	#N/A	719	563