



## Uttlesford Transport Study - Technical Notes (TN)

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# 1 Introduction

- 1.1.1 This report presents the Technical Notes produced in support of the Uttlesford Local Plan Transport Study.
- 1.1.2 Six Technical Notes (TN) were produced to provide supporting information and to summarise the methodology and data inputs applied in the Transport Study.
- 1.1.3 Copies of these Technical Notes can be found attached as appendices to this report.



## **Appendix A – TN1 - Review of Inspector’s Comments**



Uttlesford District Council

**Uttlesford Local Plan  
2013 / 2014 Transport Evidence Base  
Technical Review Note**

Transport Technical Note 1

WYG  
Executive Park  
Avalon Way  
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## 1 Introduction

### 1.1 PREAMBLE

1.1.1 WYG has been appointed by Uttlesford District Council (UDC) to assist with preparation of the transport evidence base supporting on-going preparation of its replacement Local Plan. WYG's appointment follows the withdrawal of a draft Local Plan following receipt of the Inspector's examination conclusions at the end of 2014.

1.1.2 The Inspector's comments on the withdrawn Local Plan highlighted two key areas of concern, namely:

- The potential impact of proposed large-scale development and settlement at Elsenham on the local highway network; and,
- Concerns that the proposed mitigation of traffic congestion around Junction 8 of the M11 would be inadequate to accommodate the cumulative travel demand likely to result from combined development within Uttlesford, Harlow, East Hertfordshire and Epping Forest Districts.

1.1.3 Following the Inspector's comments and subsequent withdrawal of the previous draft Local Plan, UDC issued a project brief to appoint consultants to assist with the preparation of the transport evidence supporting a replacement. Initial tasks to be undertaken as part of the appointment are set out as follows:

*1.7 Providing a "critical friend" review of the Highway Impact Assessment dated October 2013 and March 2014 prepared by Essex Highways, and*

*1.8 Commenting on transport issues raised at the previous Examination in Public and relevant local appeals for major residential development to inform the production of the transport assessment and mitigation measures proposed*

1.1.4 This note has been prepared in response to items 1.7 and 1.8 of the project brief.



## 2 Understanding the Inspector’s Comments

2.1.1 The following section provides a review of the Inspector’s comments on the 2014 draft Uttlesford Local Plan in order to identify and understand key areas of concern.

### 2.2 GENERAL COMMENTS

2.2.1 The Inspector considers that the Objectively Assessed need (OAN) for housing that was assessed across the District (c.523 residential units per annum) was broadly appropriate and suggested only a modest increase of 6 units per annum (pa), taking the requirement to 529pa.

2.2.2 The Inspector concludes that evidence concerning predicted economic growth across the District does not indicate a clear requirement for an increased need for new housing significantly over and above the OAN but recommends examining an increase of 10% to approximately 580pa to reflect potential market conditions and to assist with improving affordability.

2.2.3 The Inspector concludes that it is not possible to quantify the potential for additional household formation within the District resulting from out-migration from London at that point in time.

2.2.4 The Inspector notes that a substantial proportion of the proposed growth in economic activity within the District would be focussed around Stansted Airport that draws its workforce from a large area across the wider region and from London.

### 2.3 COMMENTS CONCERNING PROPOSED EXPANSION AT ELSENHAM

#### Background

2.3.1 Land around Elsenham was previously considered as the location for a potential eco-town (comprising in the order of 5,000 residential units) to have been brought forward once the highways infrastructure was improved to the west of Stansted Airport. The infrastructure improvements were to have been delivered as part of the Airport’s G2 (second runway) expansion plans that were proposed at the time and which would have delivered significantly improved highway connectivity between Elsenham and the A120 to the south.

2.3.2 Following BAA’s withdrawal of its G2 expansion plans the improvements to highways infrastructure in the area were shelved, so the scale for potential development centred on Elsenham was significantly reduced.



2.3.3 Essex Highways' 2013 assessment of the transport implications of the draft Local Plan identified potential housing growth in the vicinity of the village up to a maximum of 453 residential units by 2026.

2.3.4 By the time of the 2014 assessment, the potential scale of residential development included within the updated draft Local Plan had increased to a maximum of 2,607 additional units by 2031 but without benefiting from upgraded highways connectivity to the A120 to the west of Stansted Airport.

### Inspector's Comments

2.3.5 The Inspector's comments conclude that there is no reason in principle why the Local Plan should not propose a step-change in the size and status of a key village provided doing so would be consistent with national sustainable policy objectives as set out within the NPPF. The Inspector raises no "in-principle" objection to expansion of Elsenham on the scale proposed within the previous draft Local Plan. However, he emphasises that it is crucial to ensure that this is an appropriate location for such expansion before embarking.

2.3.6 The Inspector recognises that the proposed large-scale expansion of Elsenham would benefit from the existing passenger rail services serving the existing Elsenham station adjacent to the proposed development site(s).

2.3.7 It is interesting to note that the Inspector's comments highlight a recent reduction in passenger use of Elsenham Station since upgrading of services through Stansted Mountfitchet and Bishops Stortford in 2011/12.

2.3.8 The Inspector concludes that travel by rail is likely to account for a small minority of trips generated by any large scale development. However, whilst this is certainly true of development sites in general it should be noted that the opportunity to encourage rail commuter travel is greater in locations where convenient access to a well served passenger rail corridor exists.

2.3.9 Existing passenger rail frequencies and the direct connections available from Elsenham (including half-hourly, direct connections to London, Cambridge and other local destinations) during the peak travel periods would support the view that, whilst travel by rail may well remain in the minority, it could be more significant than the Inspector's comments imply, subject to available capacity being available on the train services serving Elsenham station.



- 2.3.10 Notwithstanding this potential benefit, the Inspector’s comments regarding the potential of the existing rail line to sever connectivity between the existing (western) and proposed (eastern) sides of the village and the potential safety implications of retaining the existing Station Road level crossing (particularly in relation to increased pedestrian movements) remain a concern.
- 2.3.11 Existing physical constraints in the vicinity of the Station Road level crossing appear likely to preclude delivery of substantial improvements (i.e. provision of a road bridge over the railway) at an acceptable financial or environmental cost. A level crossing is therefore likely to remain at this location.
- 2.3.12 Further development to the north and east of Elsenham would therefore need to be appraised having regard to the operational and safety implications of retaining the level crossing in its current form, or investigating any feasible options for its improvement or closure (e.g. with an alternative crossing provided elsewhere). Key issues will be highway safety and traffic capacity if the existing crossing is retained and mitigating the severance effect of the rail line for pedestrian and cycle movements between the eastern and western sides of the village. (I know that Network Rail are looking at some improvements to the level crossing to manage traffic flow better and to provide a movement-sensitive warning system)
- 2.3.13 The Inspector’s comments mention the scope to improve an existing infrequent bus service in order to provide a 30-minute frequency service to destinations including Stansted Airport, Bishops Stortford and Harlow. Such an improvement would help to improve the sustainable transport connections to the village and when considered in conjunction with the existing passenger rail services and the availability of employment opportunities at Stansted Airport would improve the location’s sustainable credentials.<sup>1</sup>
- 2.3.14 However, further assessment work would be required to demonstrate whether existing/improved sustainable transport infrastructure and services would be able to accommodate increased demands that further development at Elsenham would result in and whether residual highway impacts could be satisfactorily accommodated.

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<sup>1</sup> Analysis of travel to work patterns based on the 2001 census output (presented within the Fairfield Partnership’s TA submitted in support of an outline application for development of 800 homes on sites to the north-east of the village) indicates that over 50% of all travel to work journeys made by Elsenham residents were destined for London, Bishops Stortford, Stansted Mountfitchet, Stansted Airport and / or Harlow. It is worth noting that all destinations (plus Cambridge that, although not considered in the Fairfield assessment, would likely be a reasonably significant destination for work based trips from Elsenham) are either already served, or could feasibly be served, by direct and relatively frequent rail and / or bus based public transport services.



- 2.3.15 The Inspector’s report concludes that the local highway connections towards the strategic road network are not, and could not (within the constraints of the existing highway corridor available) be made suitable to accommodate the scale of additional trips likely to result from potential residential development as described in the preceding paragraphs.
- 2.3.16 As per the Inspector’s report, in the absence of a clear alternative strategic solution, traffic heading to and from the strategic network would have two available route options:
- Via the B1051 & B1383 towards the A120 (west) via Stansted Mountfitchet; and,
  - Via Hall Road around the eastern end of the Stansted Airport complex connecting into the A120 (east) on its southern side.
- 2.3.17 Previous studies undertaken by Essex Highways in 2013 and 2014 identified potential for a number of improvements to be implemented on both routes towards Stansted Mountfitchet to the west and via Hall Road to the south in order to render each suitable to accommodate the scale of additional traffic anticipated. These potential improvements remain in outline and have yet to be developed in more detail. The Inspector’s conclusion that the western route via Grove Hill and Stansted Mountfitchet could not be rendered suitable is considered reasonable given the significant space constraints imparted by a combination of topography and the built form around Mountfitchet itself.
- 2.3.18 One potential scheme that has been proposed in order to mitigate the impact on Mountfitchet is the potential construction of a new highway link connecting the B1051 to the west of Elsenham with the B1383 north of Mountfitchet, effectively creating a “north Mountfitchet bypass”. The Inspector raised doubts concerning the deliverability of the scheme (cost estimated at circa £7.5m – £10.0m excluding land acquisition costs) and that the wider environmental and operational implications of the proposal have not been fully considered.
- 2.3.19 The Inspector also commented on the potential for any such route to inadvertently encourage traffic destined for the south-east to re-route to use the new route and travel from the B1383 east via Elsenham and Hall Road to the A120 east of M11 J8. In addition, having considered the outline alignment of the “north Mountfitchet bypass” in more detail, the following concerns should be noted:
- The “bypass” would be on the wrong side of Mountfitchet to offer effective relief of traffic generated by the large-scale expansion of residential development around Elsenham through the town. Whilst any such link would be expected to attract a



proportion of the existing and additional traffic demand originating from areas to the east of the town, it is doubtful that it would prove sufficiently attractive to ensure anywhere near full transfer of through-traffic away from the B1051 / Lower Street route through the heart of the town without substantial (and potentially unacceptable) measures to restrict access to and through Mountfitchet for traffic from the east along the B1051;

- Even if provision of a new northern bypass were successful in diverting a substantial proportion of through-traffic away from the B1051 through Mountfitchet, it should be noted that the more traffic that is diverted from the B1051, then conversely, the more attractive the B1051 would become for residual through-traffic; and,
- The “bypass” would still require vehicles to route along the B1383 (the alignment of the old A11). This section of the route runs directly through an existing settlement in the west of Mountfitchet and reportedly gets heavily congested in peak hours and therefore cannot be considered to be unproblematic in its own right.

2.3.20 The Inspector raises concerns regarding proposals to discourage traffic from travelling through Mountfitchet by promoting use of Hall Lane to the east of Stansted Airport as an alternative route. The report raises three major concerns, namely:

- That there was insufficient evidence to demonstrate that the route would prove sufficiently attractive to encourage its use by development traffic;
- That the deliverability and cost-effectiveness of satisfactory measures to reduce congestion and discourage use of more minor routes (in the vicinity of Stansted Mountfitchet) have yet to be identified; and,
- The Inspector was not satisfied that proposed improvements along Hall Road were deliverable and/or would achieve suitable mitigation of the impact of additional traffic of the scale that would result from large-scale development in the vicinity of Elsenham.

## 2.4 IMPACTS ON M11 JUNCTION 8

2.4.1 The Inspector raises the concerns of Highways England (echoed by both Essex Highways and Hertfordshire County Councils) that the investigation of the cumulative impact of development in Uttlesford, East Herts, Harlow and Epping Forest combined on the operation of the M11 (J8) has been inadequate.



- 2.4.2 The M11 J7 & J8 Headroom Study by Essex County Council goes some way to assessing the impact of cumulative development across districts and identifies that an interim solution to improve the operation of J8 could be achieved at a combined estimated cost of £5m. However, the Inspector's report indicates that further modelling work will be required to fully understand the potential cumulative impact and therefore determine any additional highway mitigation measures that may be required.
- 2.4.3 Ultimately the Inspector remained unconvinced that a sufficiently robust evidence base had been presented to demonstrate that the capacity of the network was sufficient to meet the traffic demands placed upon it as a result of cumulative development.
- 2.4.4 The Inspector's comments also referred to modelling tools that were due to be available after the end of the Inquiry (i.e. the VISUM model of the strategic highway network). This will be available in early 2016 and will be used as part of the new District Wide Transport Study being prepared in support of the new Local Plan.

## 2.5 COMMENTS ON ISSUES IN THE VICINITY OF SAFFRON WALDEN

- 2.5.1 The inspector noted regards Saffron Walden Policy 1 "*In strategic terms this is a sound allocation although there appear to be some risks to its effectiveness in the way the scheme is being brought forward*". Furthermore the inspector refers to uncertainties in the master plan (referring to Policy SW1) regards the purpose and function of the link road and the potential role of the link regards opportunities for traffic management in the central areas. However more explanation is needed on the importance of the new link in providing mitigation of cross-town traffic through the town centre.

## 2.6 COMMENTS ON OTHER MATTERS

- 2.6.1 The Inspector's report raises concerns regarding UDC's procedures in relation to demonstrating its duty to cooperate with neighbouring authorities. Whilst the Inspector concluded that the Authority had met its obligations to date, the need to maintain collaborative dialogue and an audit trail of joint working should be noted.
- 2.6.2 The Inspector raised concerns regarding the transparency of the process by which sites are selected/rejected reminding of the need to ensure clarity of reasoning behind decisions made. Whilst the Inspector concluded that it would be inappropriate to comment in detail, the report did speculate that there may be limitations on the scale of expansion feasible through organic growth of



relatively small towns such as Saffron Walden and Great Dunmow. In such circumstances, the Inspector concluded that some form of new settlement(s) may form an appropriate means for accommodating long-term growth in the District. Care should be taken to assess the merits of all potential sites in an equitable and transparent way.



## 3 Comments on Essex Highways' 2013 & 2014 HIAs

### 3.1 INTRODUCTION

3.1.1 The following section considers the study methodology and conclusions drawn from the previous transport assessment work undertaken in support of the withdrawn draft Local Plan. Two assessments were undertaken by Essex Highways on behalf of UDC. These were the:

- Uttlesford Local Plan Highway Impact Assessment (HIA) – October 2013
- Highway Impact Assessment (HIA) of Draft Local Plan to 2031 – March 2014

### 3.2 METHODOLOGY

3.2.1 The 2013 assessment applied a 2012 base year and forecast years of 2018 and 2026. A minor update was made for the 2014 assessment to include a forecast year of 2031 in order to ensure consistency with the re-based Local Plan. As a result, by the time of the 2014 assessment, consideration of 2026 as a future year scenario had been dropped although both the 2012 base year and 2018 assessments were retained. Due to the time that has elapsed since these reports were produced the 2012 base year and subsequent forecast years are now out of date and will be updated as part of the ongoing assessment work in support of the new Local Plan.

### 3.3 ASSESSMENT OF ALLOCATIONS IN SAFFRON WALDEN

3.3.1 Both the 2013 and 2014 assessments of allocations within Saffron Walden were based on manual classified turning counts at major junctions within the town that were collected in 2012. At the time of the 2013 assessment, the future year scenarios to be tested were agreed as 2018 and 2026. Trip distribution was based on 2001 Census Journey to Work data.

3.3.2 The overall quantum of development allocated to the town in the 2013 assessment (1,253 additional residential units) increased slightly by the time of the 2014 assessment (to 1,460 units). This was as a result of a number of additional sites having been granted consent in the intervening period (+ circa 40 units) coupled with the identification of an additional allocation site on Ashdown Road with capacity to accommodate 167 units. By the time of the 2014 assessment, the future year assessment undertaken covered 2018 and 2031.

3.3.3 It is noted that of the 1,460 unit allocation within and around the town, a total of 95 have been constructed to date whilst a further 338 units are now committed. The bulk of the remaining



allocation (some 1,027 units) is comprised of strategic sites to the east of the town (860 units) with the remainder comprised of land within the town on the site of the Ashdon Road Commercial Centre.

- 3.3.4 Background traffic growth around the town was calculated using adjusted TEMPRO rates in order to reduce potential for inadvertent double counting. Given the limited scale of the town's network and development proposed, this approach is considered reasonable. Trips resulting from the proposed development were derived from interrogation of the TRICS database.
- 3.3.5 Delivery of a new eastern link road connecting Thaxted Road and Radwinter Road forms the basis of the proposed mitigation of the anticipated traffic impact associated with new development around the town, allowing for traffic to be re-directed around several key junctions and alleviating existing capacity issues at the existing Thaxted Road/Radwinter Road junction.
- 3.3.6 It should be noted that the previous assessment undertaken by Essex Highways is reliant upon the manual reassignment of traffic around the town and not on a wider network distribution model. A review of Essex Highways assumed re-assignment indicates that the assumptions appear to be reasonable and conservative estimates of the scale of redistribution (and therefore effective mitigation) that is likely to occur. However, in the absence of a more detailed understanding of traffic movements around the town, such estimates remain predicated upon local (albeit informed) estimation.
- 3.3.7 It is understood that Essex Highways commissioned a series of ANPR surveys in October 2015 as part of a study investigating the feasibility of implementing a one-way restriction on Ashdon Road. It is recommended that the assumptions made concerning likely traffic re-assignment within both the 2013 and 2014 studies are reviewed and (if necessary) updated on the basis of this additional information.
- 3.3.8 Delivery of the new eastern link road is closely tied with the build-out of housing on land to the east of the town. Given the importance of the proposed eastern link to Essex Highway's proposed mitigation strategy, the new study should understand the current status of these strategic sites and the anticipated delivery timetable (to include assessment of any interim arrangements that may be relevant).



- 3.3.9 Based on capacity assessments undertaken in the 2014 study, the link road as a stand-alone mitigation measure would be expected to provide only limited (albeit important) mitigation of the anticipated impact of development around the town by 2031.
- 3.3.10 In response, a further package of works has been developed to lock-in the benefit and further positively influence driver/traffic behaviour around the town in order to ensure effective mitigation of the additional development proposed, broadly comprised of:
- MM1: Thaxted Road northbound traffic restriction at Thaxted Road/Radwinter Road junction;
  - MM2: Debden Road northbound traffic restriction at Mount Pleasant Road/Borough Lane junction;
  - MM3: B184 Thaxted Road/B1053 Radwinter Road junction reconfiguration;
  - MM4: B184 Thaxted Road/Peaslands Road junction reconfiguration;
  - MM5: Mount Pleasant Road/Debden Road junction reconfiguration;
  - MM6: B1052 London Road/Debden Road junction reconfiguration;
  - MM7: B184 High Street/B184 George Street junction reconfiguration; and,
  - MM8: B1052 London Road/Borough Lane & B1052 Newport Road/Audley End Road junctions reconfiguration.
- 3.3.11 The 2013 and 2014 assessments indicate that the total mitigation package would be expected to deliver a beneficial impact to the overall operation of the highway network around the town even with the addition of trips associated with the anticipated Local Plan development. Of the eleven junctions tested in the previous assessments, it is forecast that the operation of seven would be improved following introduction of the network alterations with the addition of trips resulting from Local Plan development when compared to the future year base plus committed scenarios. Of the four remaining junctions, it is forecast that the addition of Local Plan traffic and network alterations would have no detrimental impact on three (two of which would remain operating well within capacity, the third remaining slightly above capacity). The operation of only one junction (Debden Road/Mount Pleasant Road) is forecast to worsen as a result of Local Plan development.
- 3.3.12 It is worth noting the risk that the failure to address capacity issues at the Debden Road/Mount Pleasant Road junction would be likely to reduce the attractiveness of the southern route around



the town via a combination of the proposed new eastern link road and Peaslands Road/Mount Pleasant Road corridor. This failure may result in a lower transfer of traffic away from routes through the town centre than may otherwise be anticipated, with associated knock-on operational impacts on these routes. It may be advisable to undertake a sensitivity test to check the operational implications should such a lower transfer of trips materialise.

3.3.13 From the 2013 and 2014 assessment, it is not clear that the proposed new link road junctions with Radwinter Road and Thaxted Road have been assessed in terms of their likely capacity performance. However, given each are to be newly constructed, it is considered reasonable to assume that these would be constructed with sufficient capacity to accommodate forecast demands.

3.3.14 Whilst the proposed mitigation package does appear to be effective in accommodating additional traffic without resulting in a significant detrimental impact on the town's highway network overall, it is noted that its successful implementation is reliant upon the introduction of a number of quite significant manoeuvre restrictions designed to encourage drivers to utilise more appropriate routes (notably the eastern link road). The LPA should remain mindful of the need to ensure procedural integrity with regard to proposing implementation of any Traffic Regulation Orders required and be mindful that, as such matters are subject to statutory procedures in their own right, delivery cannot be guaranteed.

## 3.4 ASSESSMENT OF ALLOCATIONS AROUND ELSENHAM

3.4.1 In line with the Inspector's conclusions the 2014 assessment undertaken by Essex Highways identifies the likelihood that significant development around Elsenham would result in the addition of a significant level of trips onto the nearby highway network.

3.4.2 The 2014 assessment does include a recognition that the potential sites in the vicinity of Elsenham would be relatively well located to take advantage of existing (rail) and potentially viable public transport services (predominantly extended bus services operating out of the nearby Stansted Airport hub). It is noted that the assessment includes an outline evaluation of the likely take up of sustainable travel behaviour using district wide car-ownership and existing sustainable travel behaviour patterns as an indicator although no specific, detailed consideration for potential uptake of sustainable trip making is included.



- 3.4.3 Given the very low level of existing sustainable trip making across the district and high levels of car ownership the conclusion of the 2014 assessment that such trips would be likely to account for a small minority of movements associated with future development is considered reasonable.
- 3.4.4 The 2014 assessment recognises issues associated with the distance of Elsenham from the strategic road network (the A120 to the south) coupled with the existing inadequacy of highway connections between the two.
- 3.4.5 By way of mitigation, the 2014 assessment indicates that if sites around Elsenham are to be retained within the Local Plan, then it would be necessary to implement effective demand management measures to influence travel behaviour from the outset of development delivery. The 2014 report identifies a number of measures in outline that would be required including appropriate masterplanning of development and local services to maximise trip 'internalisation' and service day to day needs locally and ensuring viability of using sustainable transport for onward travel out of the local area.
- 3.4.6 No specific assessment of the scale of 'internalisation' and sustainable travel that might be feasible was explicitly undertaken within the assessment however, and the difficulty of doing so when so many variables impacting on people's behaviour remain unknown should be noted.
- 3.4.7 The 2014 assessment includes a suggestion that upgrading Hall Road between the Elsenham development sites and the M11 J8 may be feasible in order to provide an appropriate connection to the strategic highway network. The commentary included indicates that the Hall Road route (although longer than the alternative via Mountfitchet to the west) is as quick in terms of journey time due to constraints on highway corridor widths through Mountfitchet to the west.
- 3.4.8 The 2014 assessment does not include any detailed consideration of the type of upgrading along Hall Road that might prove feasible, an issue raised in the Inspector's subsequent report, however, there is an explicit recognition that even if traffic is successfully encouraged to use Hall Road, there is still likely to be additional traffic seeking to access the strategic road network via the highway network in the vicinity of Mountfitchet.
- 3.4.9 The 2014 assessment indicates that proposals to implement a partial bypass of the northern part of Mountfitchet that could be implemented by way of mitigation is likely to be expensive (estimated in the order of £7.5m - £10.0m) and would still require traffic heading between the proposed development at Elsenham and Bishops Stortford to pass through existing areas of Mountfitchet



along the route of the old A11. The report also expresses some reservations that delivery of such a link may result in some existing traffic diverting from the B1383 southbound to reach destinations towards the south-east.

3.4.10 The 2014 assessment highlights the difficulty of assigning traffic to the network in the absence of a detailed highway assignment route choice model. It includes a recommendation that such a model be developed to aid further assessment work as may be required to support any forthcoming application for development in and around this area which, as far as we are aware, has not been done.

## 3.5 ASSESSMENT OF ALLOCATIONS AROUND GREAT DUNMOW

3.5.1 Previous assessments were based upon assumptions concerning re-assignment of traffic to the western bypass. The bypass is now in place therefore it would appear sensible to sense check the previous assumptions against updated survey data with the bypass open.

3.5.2 The 2013 and 2014 assessments identified one specific area of the network requiring mitigation as a result of additional Local Plan traffic (Hoblongs junction on the A120). The previous assessments included sketch details of a proposed improvement scheme that was anticipated to satisfactorily accommodate future traffic demand to 2031 (incorporating an additional 2,951 residential dwellings within the local area). This will need to be reviewed in light of up to date traffic flow data.

## 3.6 ASSESSMENT OF ALLOCATIONS AROUND M11 J8

3.6.1 No strategic assignment model was employed in either of the previous assessments undertaken to determine traffic demand in the vicinity of M11 Junction 8.

3.6.2 The 2013 and 2014 assessments include for specific growth associated with the anticipated expansion of the Airport (G1 expansion) and committed and Local Plan allocations within Uttlesford District. No further allowance has been made to account for specific development within East Herts (or indeed wider areas of Essex) over and above that included for within TEMPRO.

3.6.3 Within the 2013 assessment, Essex Highways developed a potential improvement scheme for M11 J8 that would have involved reconfiguration of the motorway service area (MSA) access. Specifically this included:

- Closure of the direct egress from the MSA onto the J8 roundabout;



- Realignment of the westbound A120 exit from the J8 roundabout to provide slightly increased queuing storage on the internal J8 circulatory;
- Construction of a new signalised egress from the MSA connecting into the westbound carriageway of the A120; and,
- Increased lane capacity on the eastbound A120 approach to the J8 roundabout.

3.6.4 An initial assessment presented within the 2013 Study indicated that the resulting scheme would be likely to have a number of operational benefits however the predicted 2026 base plus committed plus Local Plan development traffic would result in a slight worsening of the operation of M11 J8 during the AM and PM peak periods when compared to the 2012 baseline existing layout (-5.8% PRC compared to -1.2% during the AM peak period and -7.9% compared to -7.1% during the PM peak period). Additionally, Highways England objected to the proposal, expressing concerns that the amended position of the MSA egress and need for departing vehicles to u-turn at the A120/A1250 Dunmow Road would be likely to result in queuing back along the westbound A120 causing blocking back into M11 J8.

3.6.5 In light of the above comments from Highways England, the 2014 Essex Highways assessment included revisions to the proposed MSA egress to allow for two-way movements outbound onto the adjacent A120 and thereby eliminate the need for traffic to u-turn at the A120/A1250 Dunmow Road roundabout. The results indicated significant worsening of congestion and queuing at the adjacent M11 J8 roundabout as a result. By way of response, it is understood that Essex Highways are in the process of drafting proposals for a signalisation scheme at the A120/A1250 roundabout for implementation alongside improvements to M11 J8 (at an estimated cost of circa £5m). It is not yet clear whether or not the proposed improvement scheme would address predicted operational and capacity issues at M11 J8 as work to model both future traffic flow scenarios and the operational layout of the junction remains on-going.

3.6.6 The previous 2013 and 2014 assessment work did not specifically include for traffic growth associated with development in East Hertfordshire and around Bishops Stortford. It is now clear that large scale development within East Hertfordshire is planned in the vicinity of the Bishop's Stortford North (BSN) site allocated for 2,500 to 3,000 homes. It is understood that elements of the scheme are already committed and requiring specific highway improvements, including a new junction on the A120 and additional capacity at the A120/B1383 and A120/A1250 junctions via S106



contributions. Essex Highways have identified that greater capacity is required at the A120/B1383 and have an outline design, which has been modelled using 'Junctions9' software.

3.6.7 To the west of Bishop's Stortford, it is understood that by 2019/20 Herts CC are planning to implement a bypass of Little Hadham on the A120. It is understood that the scheme will include improvement to the A120/A1250 (Tesco) roundabout to the west of Bishop's Stortford which could result in the re-direction of S106 contributions associated with large scale development around Bishop's Stortford North towards delivery of improvements to the A120/B1383 junction.

## 3.7 CONCLUSIONS

3.7.1 Overall the methodology applied in the 2013/14 assessments produced by Essex Highways is considered sound. However, due to the locations of the development sites being considered at the time the assessments focus on the Saffron Walden, Newport, Great Dunmow and Elsenham areas of the District and primarily assess the A120 and B1383 corridors and M11 J8, without considering the wider District.

3.7.2 The assessments were based on the best information available at the time (i.e. 2012 traffic counts, 2001 Census data etc) but this data is no longer representative of existing transport conditions, particularly when taking into account the effects of the Great Dunmow bypass which opened in 2014.





3.7.3 There is therefore a clear need to produce an up to date Transport Assessment based on contemporary data which will also address the key concerns raised by the Planning Inspector at the Local Plan EiP. To do this the new transport study will:

- **Be based on the most up to date information available.**
- **Present a logical transport case for preferred site selection.**
- **Consider multi-modal transport implications across the whole of the District.**
- **Take into account the cumulative transport effects of development within the District and development in adjacent Districts.**
- **Take into account the transport implications of planned growth at Stansted Airport based on the findings of the ongoing study being produced by Essex Highways.**
- **Test development transport impacts at, and in the vicinity of, M11 J8 using the new VISUM model that will be approved by Highways England and available for use in spring 2016.**
- **Assess development traffic impacts in other areas of the District not covered by the VISUM model using the most appropriate 'industry standard' assessment methodology and up to date data.**
- **Develop and agree a robust package of multi-modal transport mitigation with Essex Highways and Highways England.**
- **Identify the likely cost and deliverability of the required transport mitigation and a strategy for its funding in order to demonstrate the overall feasibility of its delivery in support of Local Plan growth.**



## 4 Comments on Appeals for Major Residential Development

### 4.1 INTRODUCTION

4.1.1 Outline planning applications were submitted for major residential developments within the District as follows:

- Outline Application Reference UTT/13/1043/OP submitted in April 2013 for a development comprising 700 dwellings, a care home, retail, offices and leisure/community facilities on land at Easton Park, Little Easton (ex RAF Dunmow airfield) to the northwest of Great Dunmow.
- Outline Application Reference UTT/13/0808/OP submitted in April 2013 for a development comprising 800 dwellings, employment uses, retail uses, a primary school, health centre, community buildings and supporting infrastructure on land northeast of Elsenham.

4.1.2 Both applications were refused planning permission, the applicants appealed and a conjoined appeal hearing was held at Uttlesford District Council Offices in September 2014. At the time of writing (January 2016) the Planning Inspector has yet to issue a decision on the appeals so it is not known whether either or both of these developments will be proceeding.

4.1.3 The key transport issues associated with each of the application sites can be summarised as follows:

#### Land Northwest of Great Dunmow:

- Site access arrangements and adequacy of the local highway network to accommodate the development
- The mechanism for providing a vehicular or pedestrian/cycle link to the consented residential development to the south
- Accessibility to local amenities
- Cycle connections
- Public transport connections



## Land Northeast of Elsenham:

- Site access arrangements and adequacy of the local highway network to accommodate the development
- Traffic impacts on the local highway network, in particular at the level crossing in Elsenham and on local roads through Stansted Mountfitchet
- The suitability of Hall Road to provide a link to the A120(T)
- Severance effects of the railway line separating the site from Elsenham Village particularly for pedestrians and cyclists
- Accessibility to local amenities
- Public transport connections

4.1.4 The outcome of the appeals will clearly have a bearing on the new District-wide Transport Assessment because if either or both of the appeals are successful the transport implications of the respective development/s will need to be taken into account as committed development within the District. The decision will also affect the amount of residual housing to be allocated elsewhere in the District and the transport assessment of the other sites. The timescale for the Inspector’s decision therefore has a bearing on the timescale for completion of the transport study.

4.1.5 The appeal decisions may also be relevant to the study when considering the transport merits of other potential development sites. For example precedents may be established that could have a material bearing on other potential development sites in the vicinity of the appeal sites in terms of access and transport. Again, until the Inspector’s decision is known it is difficult to comment further.

4.1.6 To avoid delaying the Local Plan preparation the Council should consider contingency plans in the event that the Inspector’s decision isn’t forthcoming in early 2016. In terms of the transport assessment work this would involve testing scenarios with and without either/both of the appeal sites. However, this would require four potential scenarios to be tested (Elsenham proceeds, Great Dunmow proceeds, both sites proceed, or neither do) which would add significant additional work, time and cost.



## **Appendix B – TN2 - Trip Generation**



## Uttlesford District Council

### District Wide Transport Study

#### Technical Note 2 – TRICS Interrogation & Trip Generation Methodology

##### **1 Introduction**

- 1.1 This note has been produced to summarise the methodology used to interrogate the TRICS database to obtain person trip rates, and the application of those trip rates to estimate multi-modal trips for use in the transport study.

##### **2 TRICS Interrogation Methodology**

- 2.1 Person trip generation rates for different land uses have been obtained from the Trip Rate Information Computer System, TRICS, v7.2.4. TRICS uses empirical data from development sites to produce trip rates that can be applied to sites with similar characteristics to estimate trip generation.
- 2.2 Person trip rates have been obtained from TRICS using the largest sample of suitable 'Multi-Modal' data available in order to be as representative as possible. The only sites that were excluded from the selection process were sites in Greater London, Northern Ireland and the Republic of Ireland as these areas are considered to be unrepresentative of conditions within Uttlesford District.
- 2.3 The time intervals considered for the person trip rates estimation are the AM and PM peaks (specifically, 08:00-09:00 hrs and 17:00-18:00 hrs) in all the weekdays available in TRICS to coincide with the observed peak periods being considered in the study. The date range for the sample was taken from 1<sup>st</sup> January 2007 onwards (TRICS default).
- 2.4 Applying this selection criteria results in a sample size of 55 sites. To ensure that the person trip generation rates derived from this sample are robust, tests have been undertaken to examine the effects of restricting the TRICS selection criteria further. For residential uses these tests comprised:
  - Only selecting sites with data from post 2010 – this reduced the sample size to 34 sites and the resultant average person trip rates were lower than the 'unrestricted' sample.
  - Only selecting sites from 'Suburban Area' and 'Edge of Town' - this reduced the sample size to 50 sites and the resultant average person trip rates were lower than the 'unrestricted' sample in the AM and slightly higher in the PM (0.3%).
  - Only selecting sites from 'Edge of Town' – this reduced the sample size to 22 sites and the resultant average person trip rates were slightly higher than the 'unrestricted' sample in the AM (2.8% higher) and lower in the PM.
  - Only selecting sites from 'Suburban Area' - this reduced the sample size to 28 sites and the resultant average person trip rates were lower than the 'unrestricted' sample in the AM and slightly higher in the PM (6.3%).



- 2.5 Three of the tests resulted in average person trip rates higher than the rates obtained from the 'unrestricted' sample in one peak period. However, these are from smaller sample sizes and the differences are very small (0.3%, 2.8% and 6.3%). In addition, as the person trip rates will be applied to proposed development located across the District it is not considered appropriate to use trip rates obtained from a sample only comprising data from specific locations.
- 2.6 On the basis of these tests the average residential person trip rates obtained from the largest sample size are considered to be robust and the most appropriate for use in the study. Details of the results of the tests described above can be found in **Appendix A**.
- 2.7 A similar process has also been undertaken for the person trip rates for B1, B2 and B8 development use-class employment uses. The TRICS selection criteria excluded only sites in Greater London, Northern Ireland and the Republic of Ireland as these areas are considered to be unrepresentative of conditions within Uttlesford District. The weekday time intervals 08:00-09:00 hrs and 17:00-18:00 hrs were applied and the date range for the sample was taken from 1<sup>st</sup> January 2007 onwards (TRICS default).
- 2.8 Applying this selection criteria results in a sample size of 11 sites. To ensure that the person trip generation rates derived from this sample are robust tests have been undertaken to examine the effects of restricting the TRICS selection criteria further. Due to the smaller sample size available from TRICS it is not considered appropriate to refine the selection by site location. Therefore the tests for employment uses is limited to comparing data by date range only and this is described as follows:
- For B1 (Business Park) Use Class – selecting all sites with data since 2007 results in a sample of 11 sites. Restricting this to post 2010 data reduces the sample size to 4 sites and the resultant average person trip rates are lower than for the 'unrestricted' sample in both peaks.
  - For B2 (Industrial Estate) Use Class – selecting all sites with data since 2007 results in a sample of 9 sites. Restricting this to post 2010 data reduces the sample size to 7 sites and the resultant average person trip rates are lower than for the 'unrestricted' sample in both peaks.
  - For B8 (Warehousing & Distribution) Use Class – selecting all sites with data since 2007 results in a sample of only 3 sites. This has therefore not been restricted further.
- 2.9 On the basis of the above the average employment person trip rates obtained from the largest sample size for each employment use-class are considered robust and most appropriate for use in the study. Details of the results of the tests described above can be found in **Appendix A**.
- 2.10 TRICS provides average person trip rates per unit and also the list of the sites used for the calculation (i.e. the existing sites that have submitted data for the interrogated period). Further analysis of the site data has been undertaken to assess the quality of the 'mean' average as the most appropriate value for the trip generation, using the mean/median 'cross-reference' test.
- 2.11 The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large



datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified the higher of the mean or median mean trip rates have been applied as the most robust. Details of this analysis can be found in **Appendix B**.

- 2.12 The use of average person trip rates as opposed to 85th percentile person trip rates is considered appropriate for this strategic study since the rates will be applied to development sites across the District with varying site characteristics. In addition, the trip generation methodology provides higher weighting to car trips for sites in rural locations through the use of observed modal splits. The application of 85<sup>th</sup> percentile person trip rates 'across the board' would not be representative and could result in a significant over estimation of future trip generation.
- 2.13 One factor that could influence residential person trip generation is the number of persons living in each dwelling. Logic suggests that person trips increase with dwelling occupancy levels.
- 2.14 Therefore, to check that average residential dwelling occupancy within Uttlesford District isn't significantly different to other parts of the country a comparison has been undertaken using 2011 Census data.
- 2.15 Details can be found in **Appendix C**. The analysis demonstrates that the average population per household within the District is within 6% of the average for the County of Essex and also the average for England and Wales. On this basis the occupancy of residential dwellings within the District is considered to be typical of the selection area applied in the TRICS interrogation, which further supports the use of average residential person trip rates.
- 2.16 Similarly, for employment uses there is no reason to suggest that a large proportion of future employment sites within Uttlesford District would exhibit higher person trip generation characteristics than the averages observed from TRICS and it is considered inappropriate to apply 85th percentile trip rates 'across the board' as this could result in a significant over estimation of future trip generation.
- 2.17 The selected average person trip rates that are proposed for use in the study are summarised in **Appendix D**.



### **3 Trip Generation – General Methodology**

- 3.1 Modal split data taken from the 2011 Census for Uttlesford District will be applied to the person trip rates obtained from TRICS in order to estimate trips by each relevant mode of travel. Using observed modal splits in this manner ensures that the resultant trips by car reflect local circumstances in terms of car ownership levels/cars per household and provides the appropriate weighting to car trips for sites in rural locations.
- 3.2 For residential uses 2011 Census 'Resident Mode of Travel' will be applied, and for employment uses 'Workplace Mode of Travel'.
- 3.3 An analysis of the 2011 Census modal splits for all areas of Uttlesford District has been undertaken and this is presented in **Appendix E**. This shows differences between the modal split characteristics of the rural and urban areas of the District. Average 'Urban' and 'Rural' modal splits have therefore been derived and these will be applied in the study depending on the location of the proposed development under consideration.
- 3.4 Trips with an origin at a new residential site within the District and a destination at a new employment site within the District will be discounted to avoid trip double counting. These trips will be discounted from the employment use and removed from the origin-destination matrices.

### **4 Residential Trip Generation**

- 4.1 Residential person trip generation has been estimated using the TRICS trip rates for Houses Privately Owned. This generally gives a higher trip rate than the alternative residential sub-categories and is considered robust.
- 4.2 Modal split percentages derived from the Census 2011 'Resident Mode of Travel' data have been applied to the person trips in order to determine the number trips by each relevant mode of transport. Details of the derivation of vehicle trip rates per dwelling can be found in **Appendix F**.
- 4.3 As this is a strategic level study, site specific details that could influence the choice of trip rates (e.g. accessibility to public transport, car parking provision, etc.) are unknown. In addition, the proposed and potential residential developments being assessed are in a range of different locations (e.g. edge of town, suburban, rural etc). As such, the sample extracted from TRICS includes sites from all of these locations because this is considered to be the most appropriate for the application to all development sites within the District and will provide the most accurate picture of potential trip generation at the strategic level. The most appropriate average (mean or mode) has been chosen as described in paragraph 2.11.

### **5 Employment Trip Generation**

- 5.1 For employment sites where floor area is not available the Gross Floor Area (GFA) will be assumed to represent 40% of the total site area (the remaining 60% takes into account land required for access roads, car parking, landscaping, etc). Modal split percentages derived from Census 2011 'Workplace Mode of Travel' data will be applied to the person trip rates in order to determine the number trips by each relevant mode of transport. Details of the derivation of vehicle trip rates per 100sqm Gross Floor Area (GFA) can be found in **Appendix F**.





- 5.2 For employment uses the TRICS 'Total People' trip rates include OGV movements (i.e. movement of goods vehicles not associated with employee travel to/from work). However, the proportion of OGV trips occurring during the peak hours is very small (typically <6%) and therefore not considered significant enough to warrant being separated from the total vehicular trip generation and distributed using an OGV specific methodology. No discounts will therefore be applied to the total vehicular trip generation to take OGV trips into account, which is considered a robust approach.
- 5.3 Details of the type of employment land uses to be assessed are currently unknown therefore the TRICS database has been interrogated for B1 Business Park sites, B2 Industrial Estates and B8 Warehousing (Commercial). The split of each of these land uses to be tested on each proposed employment site will be agreed with UDC.
- 5.4 The same rationale considered for the residential trip generation is valid for the employment trip generation whereby average trip rates are considered most appropriate for area wide application to new employment sites within the District and will provide an accurate picture of potential trip generation at the strategic level. The most appropriate average rates have been selected as described in paragraph 2.11.

## **6 Other Uses trip Generation**

- 6.1 Trip rates for other uses (e.g. education, healthcare, retail and leisure uses) have not been derived since these uses are typically small scale and ancillary to residential development and as such either do not generate trips in their own right at the strategic level (i.e. trips would be included in the residential trip generation), or do not generate significant trips during the AM/PM peak periods (i.e. leisure uses).
- 6.2 Exceptions to this assumption would be; major new retail outlet centres or new hospitals which would require specific assessment, however no such uses are proposed.
- 6.3 The traffic implications of future planned expansion of Stansted Airport will be obtained from the study currently being prepared by Essex Highways and taken into account in the transport study.

## **7 Comparison Against TRICS Vehicle Trip Rates**

- 7.1 A comparison has been undertaken between the vehicle trip rates derived from TRICS person trip rate data using local modal splits and average vehicle trip rates provided by TRICS for the same sample of sites that were used to obtain the person trip rates.
- 7.2 A summary of this comparison can be found in **Appendix G**. Key points to note are:
- The residential vehicle trip rates derived using modal splits (urban and rural) are higher than the TRICS average vehicle trip rates
  - The vehicle trip rates derived using rural modal splits are higher than the TRICS average vehicle trip rate in all cases except for B8 Warehousing
  - The employment vehicle trip rates derived using urban modal splits are slightly lower than the TRICS average vehicle trip rates in all cases
- 7.3 The results are what could be expected with higher derived trip rates for the rural areas (reflecting higher car ownership/use from the observed modal splits) and



slightly lower rates for the urban areas of the District where there are greater opportunities to travel by sustainable modes.

- 7.4 The only anomaly is the trip rates that have been derived for B8 Warehousing. These are significantly lower in all cases than the average vehicle trip rates obtained from TRICS (approximately half).
- 7.5 Analysis of the data confirms that this is due to the low number of sites available from TRICS with multi-modal data (3 sites) and that all of these sites have low trip generation characteristics. The vehicle trip rate derived from this sample is therefore low as a result.
- 7.6 To ensure the transport study is robust the derived vehicle trip rates for B8 use class employment are therefore to be disregarded and the TRICS average vehicle trip rates applied instead for all locations within the district.

## 8 Resultant Vehicle Trip Rates for use in the Transport Study

8.1 The vehicle trip rates for use in the Transport Study are summarised as follows.

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |                |       |             |       |               |       |              |       |
|--|----------------|-------|-------------|-------|---------------|-------|--------------|-------|
|  | C3 Residential |       | B1 Business |       | B2 Industrial |       | B8 Warehouse |       |
|  | AM             | PM    | AM          | PM    | AM            | PM    | AM           | PM    |
| Inbound  | 0.170          | 0.405 | 1.314       | 0.126 | 0.347         | 0.091 | 0.085        | 0.035 |
| Outbound   | 0.554          | 0.245 | 0.142       | 1.050 | 0.172         | 0.302 | 0.047        | 0.090 |
| 2-Way  | 0.724          | 0.650 | 1.457       | 1.175 | 0.519         | 0.394 | 0.132        | 0.125 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |                |    |             |       |               |       |              |       |
|--|----------------|----|-------------|-------|---------------|-------|--------------|-------|
|  | C3 Residential |    | B1 Business |       | B2 Industrial |       | B8 Warehouse |       |
|  | AM             | PM | AM          | PM    | AM            | PM    | AM           | PM    |
| Inbound  | -              | -  | 1.647       | 0.158 | 0.435         | 0.115 | 0.085        | 0.035 |
| Outbound   | -              | -  | 0.178       | 1.315 | 0.216         | 0.379 | 0.047        | 0.090 |
| 2-Way  | -              | -  | 1.825       | 1.472 | 0.650         | 0.493 | 0.132        | 0.125 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |                |       |             |       |               |       |              |       |
|--|----------------|-------|-------------|-------|---------------|-------|--------------|-------|
|  | C3 Residential |       | B1 Business |       | B2 Industrial |       | B8 Warehouse |       |
|  | AM             | PM    | AM          | PM    | AM            | PM    | AM           | PM    |
| Inbound  | 0.179          | 0.426 | 1.565       | 0.150 | 0.413         | 0.109 | 0.085        | 0.035 |
| Outbound   | 0.583          | 0.258 | 0.169       | 1.250 | 0.205         | 0.360 | 0.047        | 0.090 |
| 2-Way  | 0.762          | 0.684 | 1.735       | 1.400 | 0.618         | 0.469 | 0.132        | 0.125 |

### Notes:

1. Residential trip rates calculated using Ward level data and rural/urban Wards identified from OS mapping.
2. Employment trip rates calculated using Middle Super Output Areas and 2011 Census definitions applied for Urban/Rural areas.



## Appendices



## Appendix A – TRICS Interrogation Tests

Residential

## RESI - C3 - TRICS - PERSON TRIP RATES CALCULATION

| "All Sites" (from 2007)                  |    |
|--|----|
| Selected Locations:                      |    |
| Town Centre                              | 0  |
| Edge of Town Centre                      | 5  |
| Suburban Area (PPS6 Out of Centre)       | 28 |
| Edge of Town                             | 22 |
| Neighbourhood Centre (PPS6 Local Centre) | 0  |
| Free Standing (PPS6 Out of Town)         | 0  |
| Not Known                                | 0  |

| "All Sites" (from 2007)                       |                 |       |          |            |  |
|---|-----------------|-------|----------|------------|--|
| 55 Sites                                      | <b>AM</b>       | 2-Way | Arrivals | Departures |  |
|   | 85th percentile | 1.687 | 0.435    | 1.205      |  |
|   | Mean            | 1.042 | 0.245    | 0.797      |  |
|   | Median          | 1.018 | 0.225    | 0.790      |  |
| Difference between mean and median            |                 | 0.024 | 0.020    | 0.007      |  |
| Difference percentage between mean and median |                 | 2%    | 8%       | 1%         |  |

| "All Sites" (from 2007)                       |                 |       |          |            |  |
|---|-----------------|-------|----------|------------|--|
| 55 Sites                                      | <b>PM</b>       | 2-Way | Arrivals | Departures |  |
|   | 85th percentile | 1.317 | 0.827    | 0.522      |  |
|   | Mean            | 0.936 | 0.583    | 0.353      |  |
|   | Median          | 0.867 | 0.587    | 0.270      |  |
| Difference between mean and median            |                 | 0.069 | -0.004   | 0.083      |  |
| Difference percentage between mean and median |                 | 7%    | -1%      | 24%        |  |

| "Only from 2010"                         |    |
|--|----|
| Selected Locations:                      |    |
| Town Centre                              | 0  |
| Edge of Town Centre                      | 4  |
| Suburban Area (PPS6 Out of Centre)       | 20 |
| Edge of Town                             | 10 |
| Neighbourhood Centre (PPS6 Local Centre) | 0  |
| Free Standing (PPS6 Out of Town)         | 0  |
| Not Known                                | 0  |

| "Only from 2010"  |                 |        |          |            |  |
|---|-----------------|--------|----------|------------|--|
| 34 Sites  | <b>AM</b>       | 2-Way  | Arrivals | Departures |  |
|   | 85th percentile | 1.495  | 0.449    | 1.183      |  |
|   | Mean            | 0.872  | 0.205    | 0.667      |  |
|   | Median          | 0.866  | 0.204    | 0.663      |  |
| Difference between mean and median                          |                 | 0.007  | 0.001    | 0.004      |  |
| Difference percentage between mean and median               |                 | 1%     | 0%       | 1%         |  |
| Means difference - comparison with "All Sites" (from 2007): |                 | -0.170 | -0.040   | -0.130     |  |

| "Only from 2010"  |                 |        |          |            |  |
|---|-----------------|--------|----------|------------|--|
| 34 Sites  | <b>PM</b>       | 2-Way  | Arrivals | Departures |  |
|   | 85th percentile | 1.463  | 0.959    | 0.391      |  |
|   | Mean            | 0.790  | 0.503    | 0.287      |  |
|   | Median          | 0.721  | 0.476    | 0.250      |  |
| Difference between mean and median                          |                 | 0.069  | 0.027    | 0.037      |  |
| Difference percentage between mean and median               |                 | 9%     | 5%       | 13%        |  |
| Means difference - comparison with "All Sites" (from 2007): |                 | -0.146 | -0.080   | -0.066     |  |

| "Without Town Centre" All Sites (from 2007) |    |
|---|----|
| Selected Locations:                         |    |
| Town Centre                                 | 0  |
| Edge of Town Centre                         | 0  |
| Suburban Area (PPS6 Out of Centre)          | 28 |
| Edge of Town                                | 22 |
| Neighbourhood Centre (PPS6 Local Centre)    | 0  |
| Free Standing (PPS6 Out of Town)            | 0  |
| Not Known                                   | 0  |

| "Without Town Centre" All Sites (from 2007)                 |                 |        |          |            |  |
|---|-----------------|--------|----------|------------|--|
| 50 Sites  | <b>AM</b>       | 2-Way  | Arrivals | Departures |  |
|   | 85th percentile | 1.641  | 0.427    | 1.246      |  |
|   | Mean            | 1.040  | 0.245    | 0.795      |  |
|   | Median          | 1.009  | 0.224    | 0.778      |  |
| Difference between mean and median                          |                 | 0.031  | 0.022    | 0.018      |  |
| Difference percentage between mean and median               |                 | 3%     | 9%       | 2%         |  |
| Means difference - comparison with "All Sites" (from 2007): |                 | -0.002 | 0.000    | -0.002     |  |

| "Without Town Centre" All Sites (from 2007)                 |                 |       |          |            |  |
|---|-----------------|-------|----------|------------|--|
| 50 Sites  | <b>PM</b>       | 2-Way | Arrivals | Departures |  |
|   | 85th percentile | 1.308 | 0.821    | 0.520      |  |
|   | Mean            | 0.939 | 0.587    | 0.352      |  |
|   | Median          | 0.869 | 0.579    | 0.270      |  |
|   |                 | 0%    | 0%       | 0%         |  |
| Difference between mean and median                          |                 | 0.070 | 0.008    | 0.083      |  |
| Difference percentage between mean and median               |                 | 7%    | 1%       | 23%        |  |
| Means difference - comparison with "All Sites" (from 2007): |                 | 0.003 | 0.004    | -0.001     |  |

| "Without Town Centre and Suburban Area" All Sites (from 2007) |    |
|---|----|
| Selected Locations:   |    |
| Town Centre   | 0  |
| Edge of Town Centre   | 0  |
| Suburban Area (PPS6 Out of Centre)                            | 0  |
| Edge of Town  | 22 |
| Neighbourhood Centre (PPS6 Local Centre)                      | 0  |
| Free Standing (PPS6 Out of Town)                              | 0  |
| Not Known   | 0  |

| "Without Town Centre and Suburban Area" All Sites (from 2007) |                 |        |          |            |  |
|---|-----------------|--------|----------|------------|--|
| 22 Sites  | <b>AM</b>       | 2-Way  | Arrivals | Departures |  |
|   | 85th percentile | 1.678  | 0.437    | 1.413      |  |
|   | Mean            | 1.072  | 0.247    | 0.825      |  |
|   | Median          | 1.152  | 0.241    | 0.913      |  |
| Difference between mean and median                            |                 | -0.079 | 0.006    | -0.088     |  |
| Difference percentage between mean and median                 |                 | -7%    | 2%       | -11%       |  |
| Means difference - comparison with "All Sites" (from 2007):   |                 | 0.030  | 0.002    | 0.028      |  |

| "Without Town Centre and Suburban Area" All Sites (from 2007) |                 |        |          |            |  |
|---|-----------------|--------|----------|------------|--|
| 22 Sites  | <b>PM</b>       | 2-Way  | Arrivals | Departures |  |
|   | 85th percentile | 1.284  | 0.773    | 0.512      |  |
|   | Mean            | 0.898  | 0.571    | 0.327      |  |
|   | Median          | 0.892  | 0.614    | 0.271      |  |
| Difference between mean and median                            |                 | 0.007  | -0.043   | 0.057      |  |
| Difference percentage between mean and median                 |                 | 1%     | -7%      | 17%        |  |
| Means difference - comparison with "All Sites" (from 2007):   |                 | -0.038 | -0.012   | -0.026     |  |

| "Without Town Centre and Edge of Town" All Sites (from 2007) |    |
|--|----|
| Selected Locations:  |    |
| Town Centre  | 0  |
| Edge of Town Centre  | 0  |
| Suburban Area (PPS6 Out of Centre)                           | 28 |
| Edge of Town   | 0  |
| Neighbourhood Centre (PPS6 Local Centre)                     | 0  |
| Free Standing (PPS6 Out of Town)                             | 0  |
| Not Known  | 0  |

| "Without Town Centre and Edge of Town" All Sites (from 2007) |                 |        |          |            |  |
|--|-----------------|--------|----------|------------|--|
| 28 Sites   | <b>AM</b>       | 2-Way  | Arrivals | Departures |  |
|  | 85th percentile | 1.362  | 0.405    | 1.136      |  |
|  | Mean            | 0.998  | 0.242    | 0.756      |  |
|  | Median          | 0.964  | 0.217    | 0.750      |  |
| Difference between mean and median                           |                 | 0.034  | 0.026    | 0.006      |  |
| Difference percentage between mean and median                |                 | 3%     | 11%      | 1%         |  |
| Means difference - comparison with "All Sites" (from 2007):  |                 | -0.044 | -0.003   | -0.041     |  |

| "Without Town Centre and Edge of Town" All Sites (from 2007) |                 |       |          |            |  |
|--|-----------------|-------|----------|------------|--|
| 28 Sites   | <b>PM</b>       | 2-Way | Arrivals | Departures |  |
|  | 85th percentile | 1.317 | 0.833    | 0.518      |  |
|  | Mean            | 0.995 | 0.609    | 0.386      |  |
|  | Median          | 0.864 | 0.550    | 0.270      |  |
| Difference between mean and median                           |                 | 0.131 | 0.060    | 0.117      |  |
| Difference percentage between mean and median                |                 | 13%   | 10%      | 30%        |  |
| Means difference - comparison with "All Sites" (from 2007):  |                 | 0.059 | 0.026    | 0.033      |  |

# Employment

## EMPLOYMENT - TRICS - PERSON TRIP RATES CALCULATION

**B1 B.P. - "All Sites" (from 2007)**

|  |   |
|--|---|
| Selected Locations:                      |   |
| Town Centre                              | 0 |
| Edge of Town Centre                      | 2 |
| Suburban Area (PPS6 Out of Centre)       | 6 |
| Edge of Town                             | 3 |
| Neighbourhood Centre (PPS6 Local Centre) | 0 |
| Free Standing (PPS6 Out of Town)         | 0 |
| Not Known                                | 0 |

**B1 B.P. - "All Sites" (from 2007)**

|          |   |        |          |            |
|----------|---|--------|----------|------------|
| 11 Sites | <b>AM</b>                                     | 2-Way  | Arrivals | Departures |
|          | 85th percentile                               | 2.967  | 2.711    | 0.354      |
|          | Mean  | 2.293  | 2.069    | 0.224      |
|          | Median  | 2.380  | 2.202    | 0.181      |
|          |   | 0%     | 0%       | 0%         |
|          | Difference between mean and median            | -0.087 | -0.133   | 0.043      |
|          | Difference percentage between mean and median | -4%    | -6%      | 19%        |

**B1 B.P. - "All Sites" (from 2007)**

|          |   |       |          |            |
|----------|---|-------|----------|------------|
| 11 Sites | <b>PM</b>                                     | 2-Way | Arrivals | Departures |
|          | 85th percentile                               | 2.984 | 0.383    | 2.431      |
|          | Mean  | 1.850 | 0.198    | 1.652      |
|          | Median  | 1.836 | 0.167    | 1.669      |
|          |   | 0%    | 0%       | 0%         |
|          | Difference between mean and median            | 0.014 | 0.031    | -0.017     |
|          | Difference percentage between mean and median | 1%    | 16%      | -1%        |

**B1 B.P. - "Only from 2010"**

|  |   |
|--|---|
| Selected Locations:                      |   |
| Town Centre                              | 0 |
| Edge of Town Centre                      | 2 |
| Suburban Area (PPS6 Out of Centre)       | 1 |
| Edge of Town                             | 1 |
| Neighbourhood Centre (PPS6 Local Centre) | 0 |
| Free Standing (PPS6 Out of Town)         | 0 |
| Not Known                                | 0 |

**B1 B.P. - "Only from 2010"**

|   |   |        |          |            |
|---|---|--------|----------|------------|
| 4 Sites   | <b>AM</b>                                     | 2-Way  | Arrivals | Departures |
|   | 85th percentile                               | 1.960  | 1.774    | 0.196      |
|   | Mean  | 2.261  | 2.086    | 0.175      |
|   | Median  | 1.827  | 1.671    | 0.156      |
|   |   |        |          |            |
|   | Difference between mean and median            | 0.435  | 0.415    | 0.020      |
|   | Difference percentage between mean and median | 19%    | 20%      | 11%        |
| Means difference - comparison with "All Sites" (from 2007): |   | -0.032 | 0.017    | -0.049     |

**B1 B.P. - "Only from 2010"**

|   |   |        |          |            |
|---|---|--------|----------|------------|
| 4 Sites   | <b>PM</b>                                     | 2-Way  | Arrivals | Departures |
|   | 85th percentile                               | 1.348  | 0.130    | 1.219      |
|   | Mean  | 1.668  | 0.144    | 1.524      |
|   | Median  | 1.206  | 0.113    | 1.097      |
|   |   |        |          |            |
|   | Difference between mean and median            | 0.462  | 0.031    | 0.428      |
|   | Difference percentage between mean and median | 28%    | 22%      | 28%        |
| Means difference - comparison with "All Sites" (from 2007): |   | -0.182 | -0.054   | -0.128     |

**B2 I.E. - "All Sites" (from 2007)**

|  |   |
|--|---|
| Selected Locations:                      |   |
| Town Centre                              | 0 |
| Edge of Town Centre                      | 0 |
| Suburban Area (PPS6 Out of Centre)       | 3 |
| Edge of Town                             | 5 |
| Neighbourhood Centre (PPS6 Local Centre) | 1 |
| Free Standing (PPS6 Out of Town)         | 0 |
| Not Known                                | 0 |

**B2 I.E. - "All Sites" (from 2007)**

|         |   |       |          |            |
|---------|---|-------|----------|------------|
| 9 Sites | <b>AM</b>                                     | 2-Way | Arrivals | Departures |
|         | 85th percentile                               | 0.718 | 0.570    | 0.176      |
|         | Mean  | 0.817 | 0.546    | 0.271      |
|         | Median  | 0.396 | 0.349    | 0.061      |
|         |   |       |          |            |
|         | Difference between mean and median            | 0.421 | 0.197    | 0.210      |
|         | Difference percentage between mean and median | 52%   | 36%      | 77%        |

**B2 I.E. - "All Sites" (from 2007)**

|         |   |        |          |            |
|---------|---|--------|----------|------------|
| 9 Sites | <b>PM</b>                                     | 2-Way  | Arrivals | Departures |
|         | 85th percentile                               | 1.482  | 0.442    | 1.127      |
|         | Mean  | 0.620  | 0.144    | 0.476      |
|         | Median  | 0.677  | 0.127    | 0.558      |
|         |   |        |          |            |
|         | Difference between mean and median            | -0.057 | 0.017    | -0.082     |
|         | Difference percentage between mean and median | -9%    | 12%      | -17%       |

**B2 I.E. - "All Sites" (from 2010)**

|  |   |
|--|---|
| Selected Locations:                      |   |
| Town Centre                              | 0 |
| Edge of Town Centre                      | 0 |
| Suburban Area (PPS6 Out of Centre)       | 3 |
| Edge of Town                             | 3 |
| Neighbourhood Centre (PPS6 Local Centre) | 1 |
| Free Standing (PPS6 Out of Town)         | 0 |
| Not Known                                | 0 |

**B2 I.E. - "All Sites" (from 2010)**

|   |   |        |          |            |
|---|---|--------|----------|------------|
| 7 Sites   | <b>AM</b>                                     | 2-Way  | Arrivals | Departures |
|   | 85th percentile                               | 1.120  | 0.704    | 0.434      |
|   | Mean  | 0.752  | 0.490    | 0.262      |
|   | Median  | 0.571  | 0.429    | 0.177      |
|   |   |        |          |            |
|   | Difference between mean and median            | 0.181  | 0.061    | 0.085      |
|   | Difference percentage between mean and median | 24%    | 12%      | 32%        |
| Means difference - comparison with "All Sites" (from 2007): |   | -0.065 | -0.056   | -0.009     |

**B2 I.E. - "All Sites" (from 2010)**

|   |   |        |          |            |
|---|---|--------|----------|------------|
| 7 Sites   | <b>PM</b>                                     | 2-Way  | Arrivals | Departures |
|   | 85th percentile                               | 0.892  | 0.274    | 0.559      |
|   | Mean  | 0.581  | 0.135    | 0.446      |
|   | Median  | 0.583  | 0.100    | 0.498      |
|   |   |        |          |            |
|   | Difference between mean and median            | -0.002 | 0.035    | -0.052     |
|   | Difference percentage between mean and median | 0%     | 26%      | -12%       |
| Means difference - comparison with "All Sites" (from 2007): |   | -0.039 | -0.009   | -0.030     |

**B8 WH C.- "All Sites" (from 2007)**

|  |   |
|--|---|
| Selected Locations:                      |   |
| Town Centre                              | 0 |
| Edge of Town Centre                      | 0 |
| Suburban Area (PPS6 Out of Centre)       | 0 |
| Edge of Town                             | 3 |
| Neighbourhood Centre (PPS6 Local Centre) | 0 |
| Free Standing (PPS6 Out of Town)         | 0 |
| Not Known                                | 0 |

**B8 WH C.- "All Sites" (from 2007)**

|         |   |        |          |            |
|---------|---|--------|----------|------------|
| 3 Sites | <b>AM</b>                                     | 2-Way  | Arrivals | Departures |
|         | 85th percentile                               | 0.335  | 0.237    | 0.102      |
|         | Mean  | 0.068  | 0.046    | 0.022      |
|         | Median  | 0.089  | 0.077    | 0.021      |
|         |   |        |          |            |
|         | Difference between mean and median            | -0.021 | -0.031   | 0.001      |
|         | Difference percentage between mean and median | -31%   | -67%     | 5%         |

**B8 WH C.- "All Sites" (from 2007)**

|         |   |        |          |            |
|---------|---|--------|----------|------------|
| 3 Sites | <b>PM</b>                                     | 2-Way  | Arrivals | Departures |
|         | 85th percentile                               | 0.188  | 0.031    | 0.157      |
|         | Mean  | 0.070  | 0.020    | 0.050      |
|         | Median  | 0.075  | 0.024    | 0.051      |
|         |   |        |          |            |
|         | Difference between mean and median            | -0.005 | -0.004   | -0.001     |
|         | Difference percentage between mean and median | -7%    | -20%     | -2%        |





## Appendix B – TRICS Mean/Median Tests

Residential

## TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Calculation Factor: 1 DWELLS

Count Type: TOTAL PEOPLE

| Time Range        | ARRIVALS |             |           | DEPARTURES |             |           | TOTALS   |             |           |
|-------------------|----------|-------------|-----------|------------|-------------|-----------|----------|-------------|-----------|
|                   | No. Days | Ave. DWELLS | Trip Rate | No. Days   | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00       |          |             |           |            |             |           |          |             |           |
| 01:00-02:00       |          |             |           |            |             |           |          |             |           |
| 02:00-03:00       |          |             |           |            |             |           |          |             |           |
| 03:00-04:00       |          |             |           |            |             |           |          |             |           |
| 04:00-05:00       |          |             |           |            |             |           |          |             |           |
| 05:00-06:00       |          |             |           |            |             |           |          |             |           |
| 06:00-07:00       |          |             |           |            |             |           |          |             |           |
| 07:00-08:00       | 55       | 73          | 0.12      | 55         | 73          | 0.418     | 55       | 73          | 0.538     |
| 08:00-09:00       | 55       | 73          | 0.245     | 55         | 73          | 0.797     | 55       | 73          | 1.042 AM  |
| 09:00-10:00       | 55       | 73          | 0.237     | 55         | 73          | 0.32      | 55       | 73          | 0.557     |
| 10:00-11:00       | 55       | 73          | 0.219     | 55         | 73          | 0.279     | 55       | 73          | 0.498     |
| 11:00-12:00       | 55       | 73          | 0.246     | 55         | 73          | 0.255     | 55       | 73          | 0.501     |
| 12:00-13:00       | 55       | 73          | 0.281     | 55         | 73          | 0.259     | 55       | 73          | 0.54      |
| 13:00-14:00       | 55       | 73          | 0.262     | 55         | 73          | 0.275     | 55       | 73          | 0.537     |
| 14:00-15:00       | 55       | 73          | 0.289     | 55         | 73          | 0.31      | 55       | 73          | 0.599     |
| 15:00-16:00       | 55       | 73          | 0.601     | 55         | 73          | 0.365     | 55       | 73          | 0.966     |
| 16:00-17:00       | 55       | 73          | 0.551     | 55         | 73          | 0.336     | 55       | 73          | 0.887     |
| 17:00-18:00       | 55       | 73          | 0.583     | 55         | 73          | 0.353     | 55       | 73          | 0.936 PM  |
| 18:00-19:00       | 55       | 73          | 0.412     | 55         | 73          | 0.32      | 55       | 73          | 0.732     |
| 19:00-20:00       | 3        | 36          | 0.018     | 3          | 36          | 0.009     | 3        | 36          | 0.027     |
| 20:00-21:00       | 3        | 36          | 0.009     | 3          | 36          | 0         | 3        | 36          | 0.009     |
| 21:00-22:00       | 2        | 40          | 0         | 2          | 40          | 0         | 2        | 40          | 0         |
| 22:00-23:00       |          |             |           |            |             |           |          |             |           |
| 23:00-24:00       |          |             |           |            |             |           |          |             |           |
| Daily Trip Rates: |          |             | 4.073     |            |             | 4.296     |          |             | 8.369     |

## TRICS 7.2.4

Trip Rate  
Parameter: Number of dwellings

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Ranking Type: TOTALS Time Range: 08:00-09:00

85th Percentile = no. 9

| Rank | Site Ref   | Description              | Town/City        | DWELLS | Day       | Date       | Arrivals | Departures | Totals | Parking Spaces Per Dwelling |
|------|------------|--------------------------|------------------|--------|-----------|------------|----------|------------|--------|-----------------------------|
| 1    | WK-03-A-02 | BUNGALOWS                | COVENTRY         | 17     | Thursday  | 17/10/2013 | 1.706    | 1.765      | 3.471  | 2.06                        |
| 2    | HI-03-A-13 | HOUSING                  | INVERNESS        | 9      | Thursday  | 21/05/2009 | 1        | 2.333      | 3.333  | 3.11                        |
| 3    | PK-03-A-01 | DETAC. & BUNGALOWS       | PERTH            | 36     | Wednesday | 11/05/2011 | 1.111    | 1.472      | 2.583  | 3.36                        |
| 4    | MS-03-A-03 | DETACHED                 | LIVERPOOL        | 15     | Friday    | 21/06/2013 | 0.667    | 1.267      | 1.934  | 3                           |
| 5    | CB-03-A-03 | SEMI DETACHED            | WORKINGTON       | 49     | Thursday  | 20/11/2008 | 0.45     | 1.425      | 1.875  | 3.1                         |
| 6    | SF-03-A-04 | DETACHED & BUNGALOWS     | LOWESTOFT        | 7      | Tuesday   | 23/10/2012 | 0.714    | 1.143      | 1.857  | 4.43                        |
| 7    | ST-03-A-06 | SEMI-DET. & TERRACED     | WOLVERHAMPTON    | 17     | Friday    | 09/05/2014 | 0.824    | 1          | 1.824  | 1.12                        |
| 8    | SR-03-A-01 | DETACHED                 | STIRLING         | 115    | Monday    | 23/04/2007 | 0.27     | 1.452      | 1.722  | 2.86                        |
| 9    | CH-03-A-05 | DETACHED                 | CREWE            | 17     | Tuesday   | 14/10/2008 | 0.235    | 1.471      | 1.706  | 3.71                        |
| 10   | EX-03-A-01 | SEMI-DET.                | STANFORD-LE-HOPE | 237    | Tuesday   | 13/05/2008 | 0.367    | 1.152      | 1.519  | 2.53                        |
| 11   | SF-03-A-02 | SEMI DET./TERRACED       | IPSWICH          | 230    | Thursday  | 24/05/2007 | 0.443    | 1.074      | 1.517  | 2.48                        |
| 12   | NY-03-A-11 | PRIVATE HOUSING          | BOROUGHBRIDGE    | 23     | Wednesday | 18/09/2013 | 0.13     | 1.348      | 1.478  | 6.26                        |
| 13   | GM-03-A-10 | DETACHED/SEMI            | MANCHESTER       | 29     | Wednesday | 12/10/2011 | 0.172    | 1.207      | 1.379  | 2.79                        |
| 14   | CH-03-A-08 | DETACHED                 | CHESTER          | 11     | Tuesday   | 22/05/2012 | 0.182    | 1.182      | 1.364  | 4.73                        |
| 15   | FA-03-A-01 | SEMI-DETACHED/TERRACED   | FALKIRK          | 37     | Thursday  | 30/05/2013 | 0.324    | 1          | 1.324  | 1.41                        |
| 16   | WM-03-A-03 | MIXED HOUSING            | COVENTRY         | 84     | Monday    | 24/09/2007 | 0.405    | 0.905      | 1.31   | 2.6                         |
| 17   | SH-03-A-04 | TERRACED                 | SHREWSBURY       | 108    | Thursday  | 11/06/2009 | 0.407    | 0.843      | 1.25   | 1.86                        |
| 18   | NY-03-A-10 | HOUSES AND FLATS         | RIPON            | 71     | Tuesday   | 17/09/2013 | 0.254    | 0.986      | 1.24   | 0.83                        |
| 19   | LN-03-A-01 | MIXED HOUSES             | LINCOLN          | 150    | Tuesday   | 15/05/2007 | 0.247    | 0.92       | 1.167  | 4.91                        |
| 20   | FI-03-A-03 | MIXED HOUSES             | DUNFERMLINE      | 155    | Monday    | 30/04/2007 | 0.181    | 0.955      | 1.136  | 2.84                        |
| 21   | SH-03-A-03 | DETACHED                 | SHREWSBURY       | 10     | Friday    | 26/06/2009 | 0.3      | 0.8        | 1.1    | 3                           |
| 22   | LN-03-A-02 | MIXED HOUSES             | LINCOLN          | 186    | Monday    | 14/05/2007 | 0.301    | 0.79       | 1.091  | 4.13                        |
| 23   | NE-03-A-03 | PRIVATE HOUSES           | SCUNTHORPE       | 180    | Tuesday   | 20/05/2014 | 0.189    | 0.889      | 1.078  | 2.68                        |
| 24   | NY-03-A-09 | MIXED HOUSING            | NORTHALLERTON    | 52     | Monday    | 16/09/2013 | 0.327    | 0.75       | 1.077  | 2.6                         |
| 25   | TW-03-A-02 | SEMI-DETACHED            | GATESHEAD        | 16     | Monday    | 07/10/2013 | 0.438    | 0.625      | 1.063  | 2.38                        |
| 26   | CW-03-A-02 | SEMI D./DETACHED         | TRURO            | 73     | Tuesday   | 18/09/2007 | 0.178    | 0.877      | 1.055  | 3.73                        |
| 27   | LC-03-A-30 | SEMI-DETACHED            | BLACKPOOL        | 24     | Friday    | 14/06/2013 | 0.25     | 0.792      | 1.042  | 1.67                        |
| 28   | SY-03-A-01 | SEMI-DETACHED HOUSES     | DONCASTER        | 54     | Wednesday | 18/09/2013 | 0.074    | 0.944      | 1.018  | 1.13                        |
| 29   | PS-03-A-02 | DETACHED/SEMI-DETACHED   | WELSHPOOL        | 28     | Monday    | 11/05/2015 | 0.357    | 0.643      | 1      | 2.32                        |
| 30   | CF-03-A-03 | DETACHED                 | CARDIFF          | 29     | Monday    | 08/10/2007 | 0.069    | 0.931      | 1      | 3.21                        |
| 31   | ST-03-A-05 | TERRACED & DETACHED      | STOKE-ON-TRENT   | 14     | Wednesday | 26/11/2008 | 0.214    | 0.714      | 0.928  | 2.86                        |
| 32   | CF-03-A-02 | MIXED HOUSES             | CARDIFF          | 196    | Friday    | 05/10/2007 | 0.158    | 0.765      | 0.923  | 1.98                        |
| 33   | SF-03-A-01 | SEMI DETACHED            | IPSWICH          | 77     | Wednesday | 23/05/2007 | 0.117    | 0.805      | 0.922  | 2.22                        |
| 34   | CB-03-A-04 | SEMI DETACHED            | WORKINGTON       | 82     | Friday    | 24/04/2009 | 0.207    | 0.695      | 0.902  | 1.74                        |
| 35   | SC-03-A-04 | DETACHED & TERRACED      | BLYFLEET         | 71     | Thursday  | 23/01/2014 | 0.268    | 0.606      | 0.874  | 2.49                        |
| 36   | AG-03-A-01 | BUNGALOWS/DET.           | ARBROATH         | 7      | Tuesday   | 22/05/2012 | 0.286    | 0.571      | 0.857  | 2.71                        |
| 37   | NF-03-A-01 | SEMI DET. & BUNGALOWS    | CAISTER-ON-SEA   | 27     | Tuesday   | 16/10/2012 | 0.296    | 0.556      | 0.852  | 2.37                        |
| 38   | NY-03-A-08 | TERRACED HOUSES          | YORK             | 21     | Monday    | 16/09/2013 | 0.048    | 0.762      | 0.81   | 1.14                        |
| 39   | NF-03-A-02 | HOUSES & FLATS           | NORWICH          | 98     | Monday    | 22/10/2012 | 0.173    | 0.633      | 0.806  | 2.24                        |
| 40   | SH-03-A-05 | SEMI-DETACHED/TERRACED   | TELFORD          | 54     | Thursday  | 24/10/2013 | 0.222    | 0.574      | 0.796  | 1.17                        |
| 41   | FA-03-A-02 | MIXED HOUSES             | FALKIRK          | 161    | Wednesday | 29/05/2013 | 0.186    | 0.602      | 0.788  | 1.66                        |
| 42   | LN-03-A-03 | SEMI DETACHED            | LINCOLN          | 22     | Tuesday   | 18/09/2012 | 0.091    | 0.682      | 0.773  | 1.09                        |
| 43   | EA-03-A-01 | DETACHED                 | KILMARNOCK       | 39     | Thursday  | 05/06/2008 | 0.256    | 0.513      | 0.769  | 3.03                        |
| 44   | PS-03-A-01 | MIXED HOUSES             | WELSHPOOL        | 16     | Monday    | 11/05/2015 | 0.375    | 0.375      | 0.75   | 1.63                        |
| 45   | HC-03-A-17 | HOUSES & FLATS           | LIFHOOK          | 36     | Thursday  | 12/11/2015 | 0        | 0.75       | 0.75   | 3.78                        |
| 46   | ES-03-A-02 | PRIVATE HOUSING          | PEACEHAVEN       | 37     | Friday    | 18/11/2011 | 0.108    | 0.622      | 0.73   | 1.59                        |
| 47   | HI-03-A-14 | SEMI-DETACHED            | INVERNESS        | 73     | Friday    | 13/05/2011 | 0.219    | 0.507      | 0.726  | 2.05                        |
| 48   | NY-03-A-06 | BUNGALOWS & SEMI DET.    | BOROUGHBRIDGE    | 115    | Friday    | 14/10/2011 | 0.157    | 0.539      | 0.696  | 3.5                         |
| 49   | CH-03-A-06 | SEMI-DET./BUNGALOWS      | CREWE            | 129    | Tuesday   | 14/10/2008 | 0.225    | 0.457      | 0.682  | 2.59                        |
| 50   | WS-03-A-04 | MIXED HOUSES             | HORSHAM          | 151    | Thursday  | 11/12/2014 | 0.172    | 0.457      | 0.629  | 2.28                        |
| 51   | NE-03-A-02 | SEMI DETACHED & DETACHED | SCUNTHORPE       | 432    | Monday    | 12/05/2014 | 0.079    | 0.507      | 0.586  | 1                           |
| 52   | NY-03-A-03 | PRIVATE HOUSING          | BOROUGHBRIDGE    | 14     | Monday    | 15/09/2008 | 0.143    | 0.357      | 0.5    | 3.14                        |
| 53   | AD-03-A-01 | SEMI-DETACHED            | ABERDEEN         | 59     | Friday    | 18/05/2012 | 0.034    | 0.136      | 0.17   | 2.68                        |
| 54   | WK-03-A-01 | TERRACED/SEMI/DET.       | LEAMINGTON SPA   | 6      | Friday    | 21/10/2011 | 0        | 0.167      | 0.167  | 2                           |
| 55   | SH-03-A-06 | BUNGALOWS                | SHREWSBURY       | 16     | Thursday  | 22/05/2014 | 0        | 0.125      | 0.125  | 2                           |

|                | 2-Way | Arrivals | Departures |
|----------------|-------|----------|------------|
| 85th percentil | 1.687 | 0.435    | 1.205      |
| Mean           | 1.042 | 0.245    | 0.797      |
| Median         | 1.018 | 0.225    | 0.790      |

|   |       |       |       |
|---|-------|-------|-------|
| Difference between mean and median            | 0.024 | 0.020 | 0.007 |
| Difference percentage between mean and median | 2%    | 8%    | 1%    |

**Note:** Note: The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'.  
**In this case, given the small variation, the Mean has been utilised for the calculation.**

## TRICS 7.2.4

Trip Rate  
Parameter: Number of dwellings

## RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Ranking Type: TOTALS Time Range: 17:00-18:00

85th Percentile = no. 9

| Rank | Site Ref   | Description              | Town/City        | DWELLS | Day       | Date       | Arrivals | Departures | Totals | Parking Spaces Per Dwelling |
|------|------------|--------------------------|------------------|--------|-----------|------------|----------|------------|--------|-----------------------------|
| 1    | PK-03-A-01 | DETAC. & BUNGALOWS       | PERTH            | 36     | Wednesday | 11/05/2011 | 1.444    | 1.194      | 2.638  | 3.36                        |
| 2    | AG-03-A-01 | BUNGALOWS/DET.           | ARBROATH         | 7      | Tuesday   | 22/05/2012 | 1.429    | 0.571      | 2      | 2.71                        |
| 3    | HI-03-A-14 | SEMI-DETACHED            | INVERNESS        | 73     | Friday    | 13/05/2011 | 0.973    | 1.027      | 2      | 2.05                        |
| 4    | ST-03-A-06 | SEMI-DET. & TERRACED     | WOLVERHAMPTON    | 17     | Friday    | 09/05/2014 | 1.118    | 0.824      | 1.942  | 1.12                        |
| 5    | NY-03-A-11 | PRIVATE HOUSING          | BOROUGHBRIDGE    | 23     | Wednesday | 18/09/2013 | 1.304    | 0.261      | 1.565  | 6.26                        |
| 6    | LC-03-A-30 | SEMI-DETACHED            | BLACKPOOL        | 24     | Friday    | 14/06/2013 | 0.958    | 0.5        | 1.458  | 1.67                        |
| 7    | CF-03-A-03 | DETACHED                 | CARDIFF          | 29     | Monday    | 08/10/2007 | 0.931    | 0.448      | 1.379  | 3.21                        |
| 8    | WM-03-A-03 | MIXED HOUSING            | COVENTRY         | 84     | Monday    | 24/09/2007 | 0.798    | 0.56       | 1.358  | 2.6                         |
| 9    | LN-03-A-02 | MIXED HOUSES             | LINCOLN          | 186    | Monday    | 14/05/2007 | 0.769    | 0.548      | 1.317  | 4.13                        |
| 10   | SR-03-A-01 | DETACHED                 | STIRLING         | 115    | Monday    | 23/04/2007 | 0.791    | 0.522      | 1.313  | 2.86                        |
| 11   | SH-03-A-03 | DETACHED                 | SHREWSBURY       | 10     | Friday    | 26/06/2009 | 0.7      | 0.6        | 1.3    | 3                           |
| 12   | SF-03-A-02 | SEMI DET./TERRACED       | IPSWICH          | 230    | Thursday  | 24/05/2007 | 0.778    | 0.517      | 1.295  | 2.48                        |
| 13   | SH-03-A-04 | TERRACED                 | SHREWSBURY       | 108    | Thursday  | 11/06/2009 | 0.833    | 0.426      | 1.259  | 1.86                        |
| 14   | HI-03-A-13 | HOUSING                  | INVERNESS        | 9      | Thursday  | 21/05/2009 | 0.556    | 0.667      | 1.223  | 3.11                        |
| 15   | CW-03-A-02 | SEMI D./DETACHED         | TRURO            | 73     | Tuesday   | 18/09/2007 | 0.822    | 0.397      | 1.219  | 3.73                        |
| 16   | EX-03-A-01 | SEMI-DET.                | STANFORD-LE-HOPE | 237    | Tuesday   | 13/05/2008 | 0.675    | 0.481      | 1.156  | 2.53                        |
| 17   | NY-03-A-09 | MIXED HOUSING            | NORTHALLERTON    | 52     | Monday    | 16/09/2013 | 0.827    | 0.269      | 1.096  | 2.6                         |
| 18   | CH-03-A-08 | DETACHED                 | CHESTER          | 11     | Tuesday   | 22/05/2012 | 0.818    | 0.273      | 1.091  | 4.73                        |
| 19   | CB-03-A-03 | SEMI DETACHED            | WORKINGTON       | 40     | Thursday  | 20/11/2008 | 0.675    | 0.375      | 1.05   | 3.1                         |
| 20   | NF-03-A-01 | SEMI DET. & BUNGALOWS    | CAISTER-ON-SEA   | 27     | Tuesday   | 16/10/2012 | 0.778    | 0.259      | 1.037  | 2.37                        |
| 21   | EA-03-A-01 | DETACHED                 | KILMARNOCK       | 39     | Thursday  | 05/06/2008 | 0.744    | 0.282      | 1.026  | 3.03                        |
| 22   | FI-03-A-03 | MIXED HOUSES             | DUNFERMLINE      | 155    | Monday    | 30/04/2007 | 0.606    | 0.419      | 1.025  | 2.84                        |
| 23   | CF-03-A-02 | MIXED HOUSES             | CARDIFF          | 196    | Friday    | 05/10/2007 | 0.638    | 0.367      | 1.005  | 1.98                        |
| 24   | NY-03-A-10 | HOUSES AND FLATS         | RIPON            | 71     | Tuesday   | 17/09/2013 | 0.803    | 0.113      | 0.916  | 0.83                        |
| 25   | FA-03-A-02 | MIXED HOUSES             | FALKIRK          | 161    | Wednesday | 29/05/2013 | 0.528    | 0.385      | 0.913  | 1.66                        |
| 26   | TW-03-A-02 | SEMI-DETACHED            | GATESHEAD        | 16     | Monday    | 07/10/2013 | 0.625    | 0.25       | 0.875  | 2.38                        |
| 27   | SF-03-A-01 | SEMI DETACHED            | IPSWICH          | 77     | Wednesday | 23/05/2007 | 0.494    | 0.377      | 0.871  | 2.22                        |
| 28   | LN-03-A-01 | MIXED HOUSES             | LINCOLN          | 150    | Tuesday   | 15/09/2007 | 0.587    | 0.28       | 0.867  | 4.91                        |
| 29   | NY-03-A-03 | PRIVATE HOUSING          | BOROUGHBRIDGE    | 14     | Monday    | 15/09/2008 | 0.643    | 0.214      | 0.857  | 3.14                        |
| 30   | ST-03-A-05 | TERRACED & DETACHED      | STOKE-ON-TRENT   | 14     | Wednesday | 26/11/2008 | 0.571    | 0.286      | 0.857  | 2.86                        |
| 31   | HC-03-A-17 | HOUSES & FLATS           | LIPHOOK          | 36     | Thursday  | 12/11/2015 | 0.472    | 0.361      | 0.833  | 3.78                        |
| 32   | CH-03-A-05 | DETACHED                 | CREWE            | 17     | Tuesday   | 14/10/2008 | 0.471    | 0.353      | 0.824  | 3.71                        |
| 33   | CB-03-A-04 | SEMI DETACHED            | WORKINGTON       | 82     | Friday    | 24/04/2009 | 0.561    | 0.244      | 0.805  | 1.74                        |
| 34   | GM-03-A-10 | DETACHED/SEMI            | MANCHESTER       | 29     | Wednesday | 12/10/2011 | 0.621    | 0.138      | 0.759  | 2.79                        |
| 35   | MS-03-A-03 | DETACHED                 | LIVERPOOL        | 15     | Friday    | 21/06/2013 | 0.467    | 0.267      | 0.734  | 3                           |
| 36   | ES-03-A-02 | PRIVATE HOUSING          | PEACEHAVEN       | 37     | Friday    | 18/11/2011 | 0.703    | 0.027      | 0.73   | 1.59                        |
| 37   | NE-03-A-03 | PRIVATE HOUSES           | SCUNTHORPE       | 180    | Tuesday   | 20/05/2014 | 0.406    | 0.322      | 0.728  | 2.68                        |
| 38   | SF-03-A-04 | DETACHED & BUNGALOWS     | LOWESTOFT        | 7      | Tuesday   | 23/10/2012 | 0.571    | 0.143      | 0.714  | 4.43                        |
| 39   | NY-03-A-06 | BUNGALOWS & SEMI DET.    | BOROUGHBRIDGE    | 115    | Friday    | 14/10/2011 | 0.417    | 0.27       | 0.687  | 3.5                         |
| 40   | NF-03-A-02 | HOUSES & FLATS           | NORWICH          | 98     | Monday    | 22/10/2012 | 0.48     | 0.204      | 0.684  | 2.24                        |
| 41   | NY-03-A-08 | TERRACED HOUSES          | YORK             | 21     | Monday    | 16/09/2013 | 0.524    | 0.143      | 0.667  | 1.14                        |
| 42   | FA-03-A-01 | SEMI-DETACHED/TERRACED   | FALKIRK          | 37     | Thursday  | 30/05/2013 | 0.459    | 0.189      | 0.648  | 1.41                        |
| 43   | LN-03-A-03 | SEMI-DETACHED            | LINCOLN          | 22     | Tuesday   | 18/09/2012 | 0.455    | 0.182      | 0.637  | 1.09                        |
| 44   | SH-03-A-05 | SEMI-DETACHED/TERRACED   | TELFORD          | 54     | Thursday  | 24/10/2013 | 0.37     | 0.259      | 0.629  | 1.17                        |
| 45   | PS-03-A-01 | MIXED HOUSES             | WELSHPOOL        | 16     | Monday    | 11/05/2015 | 0.375    | 0.25       | 0.625  | 1.63                        |
| 46   | SC-03-A-04 | DETACHED & TERRACED      | BYFLEET          | 71     | Thursday  | 23/01/2014 | 0.465    | 0.155      | 0.62   | 2.49                        |
| 47   | NE-03-A-02 | SEMI DETACHED & DETACHED | SCUNTHORPE       | 432    | Monday    | 12/05/2014 | 0.368    | 0.241      | 0.609  | 1                           |
| 48   | SY-03-A-01 | SEMI DETACHED HOUSES     | DONCASTER        | 54     | Wednesday | 18/09/2013 | 0.426    | 0.111      | 0.537  | 1.13                        |
| 49   | WS-03-A-04 | MIXED HOUSES             | HORSHAM          | 151    | Thursday  | 11/12/2014 | 0.331    | 0.185      | 0.516  | 2.28                        |
| 50   | CH-03-A-06 | SEMI-DET./BUNGALOWS      | CREWE            | 129    | Tuesday   | 14/10/2008 | 0.178    | 0.225      | 0.403  | 2.59                        |
| 51   | AD-03-A-01 | SEMI-DETACHED            | ABERDEEN         | 59     | Friday    | 18/05/2012 | 0.169    | 0.119      | 0.288  | 2.68                        |
| 52   | PS-03-A-02 | DETACHED/SEMI-DETACHED   | WELSHPOOL        | 28     | Monday    | 11/05/2015 | 0.179    | 0.107      | 0.286  | 2.32                        |
| 53   | SH-03-A-06 | BUNGALOWS                | SHREWSBURY       | 16     | Thursday  | 22/05/2014 | 0        | 0.25       | 0.25   | 2                           |
| 54   | WK-03-A-01 | TERRACED/SEMI/DET.       | LEAMINGTON SPA   | 6      | Friday    | 21/10/2011 | 0.167    | 0          | 0.167  | 2                           |
| 55   | WK-03-A-02 | BUNGALOWS                | COVENTRY         | 17     | Thursday  | 17/10/2013 | 0        | 0          | 0      | 2.06                        |

|                 | 2-Way | Arrivals | Departures |
|-----------------|-------|----------|------------|
| 85th Percentile | 1.317 | 0.827    | 0.522      |
| Mean            | 0.936 | 0.583    | 0.353      |
| Median          | 0.867 | 0.587    | 0.270      |

|   |       |        |       |
|---|-------|--------|-------|
| Difference between mean and median            | 0.069 | -0.004 | 0.083 |
| Difference percentage between mean and median | 7%    | -1%    | 24%   |

**Note:** Note: The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'.  
**In this case, given the significant variation, the Mean has been used for the calculation (the highest value).**

# Employment

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK  
 Calculation Factor: 100 sqm  
 Count Type: TOTAL PEOPLE

| Time Range        | ARRIVALS |          |           | DEPARTURES |          |           | TOTALS   |          |           |
|-------------------|----------|----------|-----------|------------|----------|-----------|----------|----------|-----------|
|                   | No. Days | Ave. GFA | Trip Rate | No. Days   | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-00:30       |          |          |           |            |          |           |          |          |           |
| 00:30-01:00       |          |          |           |            |          |           |          |          |           |
| 01:00-01:30       |          |          |           |            |          |           |          |          |           |
| 01:30-02:00       |          |          |           |            |          |           |          |          |           |
| 02:00-02:30       |          |          |           |            |          |           |          |          |           |
| 02:30-03:00       |          |          |           |            |          |           |          |          |           |
| 03:00-03:30       |          |          |           |            |          |           |          |          |           |
| 03:30-04:00       |          |          |           |            |          |           |          |          |           |
| 04:00-04:30       |          |          |           |            |          |           |          |          |           |
| 04:30-05:00       |          |          |           |            |          |           |          |          |           |
| 05:00-05:30       |          |          |           |            |          |           |          |          |           |
| 05:30-06:00       |          |          |           |            |          |           |          |          |           |
| 06:00-06:30       |          |          |           |            |          |           |          |          |           |
| 06:30-07:00       |          |          |           |            |          |           |          |          |           |
| 07:00-07:30       | 11       | 20478    | 0.201     | 11         | 20478    | 0.04      | 11       | 20478    | 0.241     |
| 07:30-08:00       | 11       | 20478    | 0.63      | 11         | 20478    | 0.081     | 11       | 20478    | 0.711     |
| 08:00-08:30       | 11       | 20478    | 0.814     | 11         | 20478    | 0.091     | 11       | 20478    | 0.905     |
| 08:30-09:00       | 11       | 20478    | 1.255     | 11         | 20478    | 0.133     | 11       | 20478    | 1.388     |
| 09:00-09:30       | 11       | 20478    | 0.602     | 11         | 20478    | 0.148     | 11       | 20478    | 0.75      |
| 09:30-10:00       | 11       | 20478    | 0.313     | 11         | 20478    | 0.125     | 11       | 20478    | 0.438     |
| 10:00-10:30       | 11       | 20478    | 0.164     | 11         | 20478    | 0.119     | 11       | 20478    | 0.283     |
| 10:30-11:00       | 11       | 20478    | 0.146     | 11         | 20478    | 0.118     | 11       | 20478    | 0.264     |
| 11:00-11:30       | 11       | 20478    | 0.182     | 11         | 20478    | 0.149     | 11       | 20478    | 0.331     |
| 11:30-12:00       | 11       | 20478    | 0.243     | 11         | 20478    | 0.195     | 11       | 20478    | 0.438     |
| 12:00-12:30       | 11       | 20478    | 0.21      | 11         | 20478    | 0.372     | 11       | 20478    | 0.582     |
| 12:30-13:00       | 11       | 20478    | 0.276     | 11         | 20478    | 0.308     | 11       | 20478    | 0.584     |
| 13:00-13:30       | 11       | 20478    | 0.308     | 11         | 20478    | 0.354     | 11       | 20478    | 0.662     |
| 13:30-14:00       | 11       | 20478    | 0.277     | 11         | 20478    | 0.22      | 11       | 20478    | 0.497     |
| 14:00-14:30       | 11       | 20478    | 0.203     | 11         | 20478    | 0.21      | 11       | 20478    | 0.413     |
| 14:30-15:00       | 11       | 20478    | 0.15      | 11         | 20478    | 0.198     | 11       | 20478    | 0.348     |
| 15:00-15:30       | 11       | 20478    | 0.128     | 11         | 20478    | 0.284     | 11       | 20478    | 0.412     |
| 15:30-16:00       | 11       | 20478    | 0.164     | 11         | 20478    | 0.316     | 11       | 20478    | 0.48      |
| 16:00-16:30       | 11       | 20478    | 0.138     | 11         | 20478    | 0.504     | 11       | 20478    | 0.642     |
| 16:30-17:00       | 11       | 20478    | 0.198     | 11         | 20478    | 0.641     | 11       | 20478    | 0.839     |
| 17:00-17:30       | 11       | 20478    | 0.119     | 11         | 20478    | 1.002     | 11       | 20478    | 1.121     |
| 17:30-18:00       | 11       | 20478    | 0.079     | 11         | 20478    | 0.65      | 11       | 20478    | 0.729     |
| 18:00-18:30       | 11       | 20478    | 0.05      | 11         | 20478    | 0.389     | 11       | 20478    | 0.439     |
| 18:30-19:00       | 11       | 20478    | 0.03      | 11         | 20478    | 0.149     | 11       | 20478    | 0.179     |
| 19:00-19:30       |          |          |           |            |          |           |          |          |           |
| 19:30-20:00       |          |          |           |            |          |           |          |          |           |
| 20:00-20:30       |          |          |           |            |          |           |          |          |           |
| 20:30-21:00       |          |          |           |            |          |           |          |          |           |
| 21:00-21:30       |          |          |           |            |          |           |          |          |           |
| 21:30-22:00       |          |          |           |            |          |           |          |          |           |
| 22:00-22:30       |          |          |           |            |          |           |          |          |           |
| 22:30-23:00       |          |          |           |            |          |           |          |          |           |
| 23:00-23:30       |          |          |           |            |          |           |          |          |           |
| 23:30-24:00       |          |          |           |            |          |           |          |          |           |
| Daily Trip Rates: |          |          | 6.88      |            |          | 6.796     |          |          | 13.676    |

Parameter summary

Trip rate parameter range selected: 1300 - 77513 (units: sqm)  
 Survey date date range: 01/01/07 - 24/10/16  
 Number of weekdays (Monday-Friday): 11  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 1

TRICS 7.2.4

Trip Rate  
Parameter: Gross floor area

RANK ORDER for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK  
Ranking Type: TOTALS Time Range: 08:00-09:00  
85th/15th Percentile Survey Not Highlighted

| Rank | Site Ref   | Description     | Town/City     | GFA   | Day      | Date       | Arrivals | Departures | Totals | Travel Plan |
|------|------------|-----------------|---------------|-------|----------|------------|----------|------------|--------|-------------|
| 1    | SH-02-B-04 | BUSINESS PARK   | TELFORD       | 10175 | Thursday | 24/10/2013 | 2.811    | 0.246      | 3.057  |             |
| 2    | NF-02-B-02 | BUSINESS PARK   | NORWICH       | 7400  | Thursday | 17/05/2007 | 2.635    | 0.392      | 3.027  |             |
| 3    | EB-02-B-03 | BUSINESS PARK   | EDINBURGH     | 6675  | Tuesday  | 01/05/2007 | 2.787    | 0.12       | 2.907  |             |
| 4    | NT-02-B-01 | BUSINESS PARK   | NOTTINGHAM    | 2321  | Thursday | 17/05/2007 | 2.499    | 0.388      | 2.887  |             |
| 5    | TW-02-B-03 | BUSINESS PARK   | SUNDERLAND    | 77513 | Thursday | 09/10/2008 | 2.405    | 0.32       | 2.725  |             |
| 6    | HC-02-B-02 | BUSINESS PARK   | PORTSMOUTH    | 55000 | Friday   | 18/10/2013 | 2.202    | 0.178      | 2.38   |             |
| 7    | FA-02-B-02 | BUSINESS PARK   | FALKIRK       | 16000 | Friday   | 31/05/2013 | 2.125    | 0.181      | 2.306  |             |
| 8    | DC-02-B-01 | BUSINESS PARK   | POOLE         | 1570  | Thursday | 17/07/2008 | 2.166    | 0.127      | 2.293  |             |
| 9    | SH-02-B-03 | BUSINESS CENTRE | TELFORD       | 1300  | Tuesday  | 16/06/2009 | 1.385    | 0.308      | 1.693  | Yes         |
| 10   | SC-02-B-03 | BUSINESS PARK   | FRIMLEY       | 20160 | Tuesday  | 27/11/2012 | 1.374    | 0.124      | 1.498  |             |
| 11   | TW-02-B-02 | BUSINESS PARK   | NORTH SHIELDS | 27142 | Friday   | 10/10/2008 | 0.711    | 0.107      | 0.818  |             |

|                 | 2-Way | Arrivals | Departures |
|-----------------|-------|----------|------------|
| 85th percentile | 2.967 | 2.711    | 0.354      |
| Mean            | 2.293 | 2.069    | 0.224      |
| Median          | 2.380 | 2.202    | 0.181      |

|   |        |        |       |
|---|--------|--------|-------|
| Difference between mean and median            | -0.087 | -0.133 | 0.043 |
| Difference percentage between mean and median | -4%    | -6%    | 19%   |

**Note:** The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'.  
**In this case, given the non-significant variation, the Mean has been utilised for the calculation.**



TRICS 7.2.4

Trip Rate  
Parameter: Gross floor area

RANK ORDER for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

Ranking Type: TOTALS Time Range: 17:00-18:00

85th/15th Percentile Survey Not Highlighted

| Rank | Site Ref   | Description     | Town/City     | GFA   | Day      | Date       | Arrivals | Departures | Totals |
|------|------------|-----------------|---------------|-------|----------|------------|----------|------------|--------|
| 1    | EB-02-B-03 | BUSINESS PARK   | EDINBURGH     | 6675  | Tuesday  | 01/05/2007 | 0.36     | 2.801      | 3.161  |
| 2    | DC-02-B-01 | BUSINESS PARK   | POOLE         | 1570  | Thursday | 17/07/2008 | 0.701    | 2.293      | 2.994  |
| 3    | NF-02-B-02 | BUSINESS PARK   | NORWICH       | 7400  | Thursday | 17/05/2007 | 0.405    | 2.568      | 2.973  |
| 4    | NT-02-B-01 | BUSINESS PARK   | NOTTINGHAM    | 2321  | Thursday | 17/05/2007 | 0.259    | 2.154      | 2.413  |
| 5    | TW-02-B-03 | BUSINESS PARK   | SUNDERLAND    | 77513 | Thursday | 09/10/2008 | 0.27     | 2.068      | 2.338  |
| 6    | HC-02-B-02 | BUSINESS PARK   | PORTSMOUTH    | 55000 | Friday   | 18/10/2013 | 0.167    | 1.669      | 1.836  |
| 7    | SH-02-B-04 | BUSINESS PARK   | TELFORD       | 10175 | Thursday | 24/10/2013 | 0.069    | 1.622      | 1.691  |
| 8    | SH-02-B-03 | BUSINESS CENTRE | TELFORD       | 1300  | Tuesday  | 16/06/2009 | 0.154    | 1.308      | 1.462  |
| 9    | SC-02-B-03 | BUSINESS PARK   | FRIMLEY       | 20160 | Tuesday  | 27/11/2012 | 0.144    | 1.265      | 1.409  |
| 10   | FA-02-B-02 | BUSINESS PARK   | FALKIRK       | 16000 | Friday   | 31/05/2013 | 0.113    | 1.294      | 1.407  |
| 11   | TW-02-B-02 | BUSINESS PARK   | NORTH SHIELDS | 27142 | Friday   | 10/10/2008 | 0.07     | 0.339      | 0.409  |

|                 | 2-Way | Arrivals | Departures |
|-----------------|-------|----------|------------|
| 85th percentile | 2.984 | 0.383    | 2.431      |
| Mean            | 1.850 | 0.198    | 1.652      |
| Median          | 1.836 | 0.167    | 1.669      |

|   |       |       |        |
|---|-------|-------|--------|
| Difference between mean and median            | 0.014 | 0.031 | -0.017 |
| Difference percentage between mean and median | 1%    | 16%   | -1%    |

**Note:** Note: The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'.  
**In this case, given the small variation, the Mean has been utilised for the calculation.**

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE  
 Calculation Factor: 100 sqm  
 Count Type: TOTAL PEOPLE

| Time Range                               | ARRIVALS                  |          |           | DEPARTURES |          |           | TOTALS   |          |           |
|--|---------------------------|----------|-----------|------------|----------|-----------|----------|----------|-----------|
|  | No. Days                  | Ave. GFA | Trip Rate | No. Days   | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-00:30                              |                           |          |           |            |          |           |          |          |           |
| 00:30-01:00                              |                           |          |           |            |          |           |          |          |           |
| 01:00-01:30                              |                           |          |           |            |          |           |          |          |           |
| 01:30-02:00                              |                           |          |           |            |          |           |          |          |           |
| 02:00-02:30                              |                           |          |           |            |          |           |          |          |           |
| 02:30-03:00                              |                           |          |           |            |          |           |          |          |           |
| 03:00-03:30                              |                           |          |           |            |          |           |          |          |           |
| 03:30-04:00                              |                           |          |           |            |          |           |          |          |           |
| 04:00-04:30                              |                           |          |           |            |          |           |          |          |           |
| 04:30-05:00                              |                           |          |           |            |          |           |          |          |           |
| 05:00-05:30                              |                           |          |           |            |          |           |          |          |           |
| 05:30-06:00                              |                           |          |           |            |          |           |          |          |           |
| 06:00-06:30                              |                           |          |           |            |          |           |          |          |           |
| 06:30-07:00                              |                           |          |           |            |          |           |          |          |           |
| 07:00-07:30                              | 9                         | 18237    | 0.129     | 9          | 18237    | 0.029     | 9        | 18237    | 0.158     |
| 07:30-08:00                              | 9                         | 18237    | 0.281     | 9          | 18237    | 0.073     | 9        | 18237    | 0.354     |
| 08:00-08:30                              | 9                         | 18237    | 0.286     | 9          | 18237    | 0.123     | 9        | 18237    | 0.409     |
| 08:30-09:00                              | 9                         | 18237    | 0.26      | 9          | 18237    | 0.148     | 9        | 18237    | 0.408     |
| 09:00-09:30                              | 9                         | 18237    | 0.195     | 9          | 18237    | 0.15      | 9        | 18237    | 0.345     |
| 09:30-10:00                              | 9                         | 18237    | 0.169     | 9          | 18237    | 0.131     | 9        | 18237    | 0.3       |
| 10:00-10:30                              | 9                         | 18237    | 0.175     | 9          | 18237    | 0.158     | 9        | 18237    | 0.333     |
| 10:30-11:00                              | 9                         | 18237    | 0.161     | 9          | 18237    | 0.174     | 9        | 18237    | 0.335     |
| 11:00-11:30                              | 9                         | 18237    | 0.169     | 9          | 18237    | 0.166     | 9        | 18237    | 0.335     |
| 11:30-12:00                              | 9                         | 18237    | 0.186     | 9          | 18237    | 0.205     | 9        | 18237    | 0.391     |
| 12:00-12:30                              | 9                         | 18237    | 0.177     | 9          | 18237    | 0.184     | 9        | 18237    | 0.361     |
| 12:30-13:00                              | 9                         | 18237    | 0.147     | 9          | 18237    | 0.197     | 9        | 18237    | 0.344     |
| 13:00-13:30                              | 9                         | 18237    | 0.172     | 9          | 18237    | 0.2       | 9        | 18237    | 0.372     |
| 13:30-14:00                              | 9                         | 18237    | 0.179     | 9          | 18237    | 0.157     | 9        | 18237    | 0.336     |
| 14:00-14:30                              | 9                         | 18237    | 0.169     | 9          | 18237    | 0.161     | 9        | 18237    | 0.333     |
| 14:30-15:00                              | 9                         | 18237    | 0.16      | 9          | 18237    | 0.159     | 9        | 18237    | 0.319     |
| 15:00-15:30                              | 9                         | 18237    | 0.159     | 9          | 18237    | 0.179     | 9        | 18237    | 0.338     |
| 15:30-16:00                              | 9                         | 18237    | 0.146     | 9          | 18237    | 0.214     | 9        | 18237    | 0.36      |
| 16:00-16:30                              | 9                         | 18237    | 0.14      | 9          | 18237    | 0.225     | 9        | 18237    | 0.365     |
| 16:30-17:00                              | 9                         | 18237    | 0.15      | 9          | 18237    | 0.247     | 9        | 18237    | 0.397     |
| 17:00-17:30                              | 9                         | 18237    | 0.089     | 9          | 18237    | 0.269     | 9        | 18237    | 0.358     |
| 17:30-18:00                              | 9                         | 18237    | 0.055     | 9          | 18237    | 0.207     | 9        | 18237    | 0.262     |
| 18:00-18:30                              | 9                         | 18237    | 0.053     | 9          | 18237    | 0.104     | 9        | 18237    | 0.157     |
| 18:30-19:00                              | 9                         | 18237    | 0.027     | 9          | 18237    | 0.041     | 9        | 18237    | 0.068     |
| 19:00-19:30                              |                           |          |           |            |          |           |          |          |           |
| 19:30-20:00                              |                           |          |           |            |          |           |          |          |           |
| 20:00-20:30                              |                           |          |           |            |          |           |          |          |           |
| 20:30-21:00                              |                           |          |           |            |          |           |          |          |           |
| 21:00-21:30                              |                           |          |           |            |          |           |          |          |           |
| 21:30-22:00                              |                           |          |           |            |          |           |          |          |           |
| 22:00-22:30                              |                           |          |           |            |          |           |          |          |           |
| 22:30-23:00                              |                           |          |           |            |          |           |          |          |           |
| 23:00-23:30                              |                           |          |           |            |          |           |          |          |           |
| 23:30-24:00                              |                           |          |           |            |          |           |          |          |           |
| Daily Trip Rates:                        |                           |          | 3.834     |            |          | 3.901     |          |          | 7.735     |
| Parameter summary                        |                           |          |           |            |          |           |          |          |           |
| Trip rate parameter range selected:      | 6515 - 36500 (units: sqm) |          |           |            |          |           |          |          |           |
| Survey date date range:                  | 01/01/07 - 02/12/14       |          |           |            |          |           |          |          |           |
| Number of weekdays (Monday-Friday):      | 9                         |          |           |            |          |           |          |          |           |
| Number of Saturdays:                     | 0                         |          |           |            |          |           |          |          |           |
| Number of Sundays:                       | 0                         |          |           |            |          |           |          |          |           |
| Surveys manually removed from selection: | 1                         |          |           |            |          |           |          |          |           |

TRICS 7.2.4

Trip Rate  
Parameter: Gross floor area

RANK ORDER for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE  
Ranking Type: TOTALS Time Range: 07:00-08:00  
85th/15th Percentile Survey Not Highlighted

| Rank | Site Ref   | Description       | Town/City     | GFA   | Day       | Date       | Arrivals | Departures | Totals |
|------|------------|-------------------|---------------|-------|-----------|------------|----------|------------|--------|
| 1    | CW-02-D-03 | IND. ESTATE       | NEAR PENZANCE | 36500 | Monday    | 03/10/2011 | 0.652    | 0.219      | 0.871  |
| 2    | CW-02-D-02 | INDUSTRIAL ESTATE | CAMBORNE      | 6515  | Friday    | 21/09/2007 | 0.583    | 0.138      | 0.721  |
| 3    | ES-02-D-06 | INDUSTRIAL ESTATE | EASTBOURNE    | 7525  | Monday    | 21/10/2013 | 0.518    | 0.186      | 0.704  |
| 4    | FA-02-D-02 | INDUSTRIAL ESTATE | FALKIRK       | 21250 | Thursday  | 30/05/2013 | 0.513    | 0.104      | 0.617  |
| 5    | WM-02-D-02 | INDUSTRIAL ESTATE | BIRMINGHAM    | 23480 | Wednesday | 07/11/2012 | 0.349    | 0.047      | 0.396  |
| 6    | KC-02-D-02 | INDUSTRIAL ESTATE | DEAL          | 10715 | Wednesday | 28/11/2012 | 0.345    | 0.009      | 0.354  |
| 7    | CH-02-D-02 | INDUSTRIAL EST.   | NORTHWICH     | 22000 | Friday    | 15/06/2007 | 0.286    | 0.059      | 0.345  |
| 8    | BR-02-D-05 | INDUSTRIAL ESTATE | BRISTOL       | 18128 | Friday    | 29/11/2013 | 0.27     | 0.061      | 0.331  |
| 9    | BR-02-D-04 | INDUSTRIAL ESTATE | BRISTOL       | 18018 | Friday    | 29/11/2013 | 0.1      | 0.028      | 0.128  |

|                 | 2-Way | Arrivals | Departures |
|-----------------|-------|----------|------------|
| 85th percentile | 0.718 | 0.570    | 0.176      |
| Mean            | 0.817 | 0.546    | 0.271      |
| Median          | 0.396 | 0.349    | 0.061      |

|   |       |       |       |
|---|-------|-------|-------|
| Difference between mean and median            | 0.421 | 0.197 | 0.210 |
| Difference percentage between mean and median | 52%   | 36%   | 77%   |

**Note:** Note: The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'. In this case, given the large variation, the Mean has been used for the calculation (the highest value).

TRICS 7.2.4

Trip Rate  
Parameter: Gross floor area

RANK ORDER for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

Ranking Type: TOTALS Time Range: 17:00-18:30

85th/15th Percentile Survey Not Highlighted

| Rank | Site Ref   | Description       | Town/City     | GFA   | Day       | Date       | Arrivals | Departures | Totals |
|------|------------|-------------------|---------------|-------|-----------|------------|----------|------------|--------|
| 1    | CW-02-D-02 | INDUSTRIAL ESTATE | CAMBORNE      | 6515  | Friday    | 21/09/2007 | 0.476    | 1.458      | 1.934  |
| 2    | ES-02-D-06 | INDUSTRIAL ESTATE | EASTBOURNE    | 7525  | Monday    | 21/10/2013 | 0.306    | 1.236      | 1.542  |
| 3    | FA-02-D-02 | INDUSTRIAL ESTATE | FALKIRK       | 21250 | Thursday  | 30/05/2013 | 0.551    | 0.692      | 1.243  |
| 4    | CW-02-D-03 | IND. ESTATE       | NEAR PENZANCE | 36500 | Monday    | 03/10/2011 | 0.208    | 0.584      | 0.792  |
| 5    | CH-02-D-02 | INDUSTRIAL EST.   | NORTHWICH     | 22000 | Friday    | 15/06/2007 | 0.127    | 0.55       | 0.677  |
| 6    | WM-02-D-02 | INDUSTRIAL ESTATE | BIRMINGHAM    | 23480 | Wednesday | 07/11/2012 | 0.102    | 0.558      | 0.66   |
| 7    | BR-02-D-04 | INDUSTRIAL ESTATE | BRISTOL       | 18018 | Friday    | 29/11/2013 | 0.105    | 0.488      | 0.593  |
| 8    | KC-02-D-02 | INDUSTRIAL ESTATE | DEAL          | 10715 | Wednesday | 28/11/2012 | 0.028    | 0.42       | 0.448  |
| 9    | BR-02-D-05 | INDUSTRIAL ESTATE | BRISTOL       | 18128 | Friday    | 29/11/2013 | 0.017    | 0.105      | 0.122  |

|                 | 2-Way | Arrivals | Departures |
|-----------------|-------|----------|------------|
| 85th percentile | 1.482 | 0.442    | 1.127      |
| Mean            | 0.620 | 0.144    | 0.476      |
| Median          | 0.677 | 0.127    | 0.558      |

|   |        |       |        |
|---|--------|-------|--------|
| Difference between mean and median            | -0.057 | 0.017 | -0.082 |
| Difference percentage between mean and median | -9%    | 12%   | -17%   |

**Note:** Note: The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'.  
**In this case, given the non-significant variation, the Mean has been utilised for the calculation.**

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)  
 Calculation Factor: 100 sqm  
 Count Type: TOTAL PEOPLE

| Time Range        | ARRIVALS |          |           | DEPARTURES |          |           | TOTALS   |          |           |
|-------------------|----------|----------|-----------|------------|----------|-----------|----------|----------|-----------|
|                   | No. Days | Ave. GFA | Trip Rate | No. Days   | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-00:30       |          |          |           |            |          |           |          |          |           |
| 00:30-01:00       |          |          |           |            |          |           |          |          |           |
| 01:00-01:30       |          |          |           |            |          |           |          |          |           |
| 01:30-02:00       |          |          |           |            |          |           |          |          |           |
| 02:00-02:30       |          |          |           |            |          |           |          |          |           |
| 02:30-03:00       |          |          |           |            |          |           |          |          |           |
| 03:00-03:30       |          |          |           |            |          |           |          |          |           |
| 03:30-04:00       |          |          |           |            |          |           |          |          |           |
| 04:00-04:30       |          |          |           |            |          |           |          |          |           |
| 04:30-05:00       |          |          |           |            |          |           |          |          |           |
| 05:00-05:30       | 1        | 2950     | 0         | 1          | 2950     | 0         | 1        | 2950     | 0         |
| 05:30-06:00       | 1        | 2950     | 0.203     | 1          | 2950     | 0         | 1        | 2950     | 0.203     |
| 06:00-06:30       | 1        | 2950     | 0.034     | 1          | 2950     | 0         | 1        | 2950     | 0.034     |
| 06:30-07:00       | 1        | 2950     | 0.271     | 1          | 2950     | 0.034     | 1        | 2950     | 0.305     |
| 07:00-07:30       | 3        | 38439    | 0.019     | 3          | 38439    | 0.01      | 3        | 38439    | 0.029     |
| 07:30-08:00       | 3        | 38439    | 0.049     | 3          | 38439    | 0.012     | 3        | 38439    | 0.061     |
| 08:00-08:30       | 3        | 38439    | 0.023     | 3          | 38439    | 0.012     | 3        | 38439    | 0.035     |
| 08:30-09:00       | 3        | 38439    | 0.023     | 3          | 38439    | 0.01      | 3        | 38439    | 0.033     |
| 09:00-09:30       | 3        | 38439    | 0.033     | 3          | 38439    | 0.015     | 3        | 38439    | 0.048     |
| 09:30-10:00       | 3        | 38439    | 0.05      | 3          | 38439    | 0.015     | 3        | 38439    | 0.065     |
| 10:00-10:30       | 3        | 38439    | 0.014     | 3          | 38439    | 0.028     | 3        | 38439    | 0.042     |
| 10:30-11:00       | 3        | 38439    | 0.007     | 3          | 38439    | 0.006     | 3        | 38439    | 0.013     |
| 11:00-11:30       | 3        | 38439    | 0.009     | 3          | 38439    | 0.015     | 3        | 38439    | 0.024     |
| 11:30-12:00       | 3        | 38439    | 0.011     | 3          | 38439    | 0.014     | 3        | 38439    | 0.025     |
| 12:00-12:30       | 3        | 38439    | 0.016     | 3          | 38439    | 0.02      | 3        | 38439    | 0.036     |
| 12:30-13:00       | 3        | 38439    | 0.016     | 3          | 38439    | 0.011     | 3        | 38439    | 0.027     |
| 13:00-13:30       | 3        | 38439    | 0.055     | 3          | 38439    | 0.023     | 3        | 38439    | 0.078     |
| 13:30-14:00       | 3        | 38439    | 0.105     | 3          | 38439    | 0.072     | 3        | 38439    | 0.177     |
| 14:00-14:30       | 3        | 38439    | 0.014     | 3          | 38439    | 0.069     | 3        | 38439    | 0.083     |
| 14:30-15:00       | 3        | 38439    | 0.016     | 3          | 38439    | 0.03      | 3        | 38439    | 0.046     |
| 15:00-15:30       | 3        | 38439    | 0.012     | 3          | 38439    | 0.024     | 3        | 38439    | 0.036     |
| 15:30-16:00       | 3        | 38439    | 0.014     | 3          | 38439    | 0.029     | 3        | 38439    | 0.043     |
| 16:00-16:30       | 3        | 38439    | 0.018     | 3          | 38439    | 0.032     | 3        | 38439    | 0.05      |
| 16:30-17:00       | 3        | 38439    | 0.011     | 3          | 38439    | 0.043     | 3        | 38439    | 0.054     |
| 17:00-17:30       | 3        | 38439    | 0.015     | 3          | 38439    | 0.025     | 3        | 38439    | 0.04      |
| 17:30-18:00       | 3        | 38439    | 0.005     | 3          | 38439    | 0.025     | 3        | 38439    | 0.03      |
| 18:00-18:30       | 3        | 38439    | 0.013     | 3          | 38439    | 0.03      | 3        | 38439    | 0.043     |
| 18:30-19:00       | 3        | 38439    | 0.008     | 3          | 38439    | 0.018     | 3        | 38439    | 0.026     |
| 19:00-19:30       | 1        | 2950     | 0.203     | 1          | 2950     | 0.102     | 1        | 2950     | 0.305     |
| 19:30-20:00       | 1        | 2950     | 0.034     | 1          | 2950     | 0.102     | 1        | 2950     | 0.136     |
| 20:00-20:30       | 1        | 2950     | 0.034     | 1          | 2950     | 0.034     | 1        | 2950     | 0.068     |
| 20:30-21:00       | 1        | 2950     | 0.068     | 1          | 2950     | 0.102     | 1        | 2950     | 0.17      |
| 21:00-21:30       |          |          |           |            |          |           |          |          |           |
| 21:30-22:00       |          |          |           |            |          |           |          |          |           |
| 22:00-22:30       |          |          |           |            |          |           |          |          |           |
| 22:30-23:00       |          |          |           |            |          |           |          |          |           |
| 23:00-23:30       |          |          |           |            |          |           |          |          |           |
| 23:30-24:00       |          |          |           |            |          |           |          |          |           |
| Daily Trip Rates: |          |          | 1.403     |            |          | 0.962     |          |          | 2.365     |

Parameter summary

Trip rate parameter range selected: 2950 - 80066 (units: sqm)  
 Survey date date range: 01/01/07 - 10/06/14  
 Number of weekdays (Monday-Friday): 3  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 0

TRICS 7.2.4  
Trip Rate Gross floor area

RANK ORDER for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

Ranking Type: TOTALS Time Range: 08:00-09:00

85th/15th Percentile Survey Not Highlighted

| Rank | Site Ref   | Description     | Town/City  | GFA   | Day     | Date       | Arrivals | Departures | Totals | Travel Plan |
|------|------------|-----------------|------------|-------|---------|------------|----------|------------|--------|-------------|
| 1    | CB-02-F-01 | DOMINO'S PIZZA  | PENRITH    | 2950  | Tuesday | 10/06/2014 | 0.305    | 0.136      | 0.441  |             |
| 2    | LN-02-F-01 | BOOK SERVICE    | GRANTHAM   | 32300 | Monday  | 29/11/2010 | 0.077    | 0.012      | 0.089  |             |
| 3    | TV-02-F-02 | ARGOS WAREHOUSE | DARLINGTON | 80066 | Tuesday | 07/10/2008 | 0.022    | 0.021      | 0.043  |             |

|                 | 2-Way | Arrivals | Departures |
|-----------------|-------|----------|------------|
| 85th percentile | 0.335 | 0.237    | 0.102      |
| Mean            | 0.068 | 0.046    | 0.022      |
| Median          | 0.089 | 0.077    | 0.021      |

|   |        |        |       |
|---|--------|--------|-------|
| Difference between mean and median            | -0.021 | -0.031 | 0.001 |
| Difference percentage between mean and median | -31%   | -67%   | 5%    |

**Note:** Note: The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'. In this case, given the large variation, the Median has been utilised for the calculation (the highest value).

TRICS 7.2.4

Trip Rate  
Parameter: Gross floor area

RANK ORDER for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

Ranking Type: TOTALS Time Range: 17:00-18:00

85th/15th Percentile Survey Not Highlighted

| Rank | Site Ref   | Description     | Town/City  | GFA   | Day     | Date       | Arrivals | Departures | Totals | Travel Plan |
|------|------------|-----------------|------------|-------|---------|------------|----------|------------|--------|-------------|
| 1    | CB-02-F-01 | DOMINO'S PIZZA  | PENRITH    | 2950  | Tuesday | 10/06/2014 | 0.034    | 0.203      | 0.237  |             |
| 2    | TV-02-F-02 | ARGOS WAREHOUSE | DARLINGTON | 80066 | Tuesday | 07/10/2008 | 0.024    | 0.051      | 0.075  |             |
| 3    | LN-02-F-01 | BOOK SERVICE    | GRANTHAM   | 32300 | Monday  | 29/11/2010 | 0.009    | 0.034      | 0.043  |             |

|                 | 2-Way | Arrivals | Departures |
|-----------------|-------|----------|------------|
| 85th percentile | 0.188 | 0.031    | 0.157      |
| Mean            | 0.070 | 0.020    | 0.050      |
| Median          | 0.075 | 0.024    | 0.051      |

|   |        |        |        |
|---|--------|--------|--------|
| Difference between mean and median            | -0.005 | -0.004 | -0.001 |
| Difference percentage between mean and median | -7%    | -20%   | -2%    |

**Note:** Note: The mean/median 'cross-reference' test is the methodology recommended in the TRICS Good Practice guide to establish the robustness of trip rates. The procedure highlights any adverse weighting of trip rates occurring within TRICS. For large datasets (>20 surveys) a mean-to-median variation exceeding 5% typically indicates that trip rate biasing is occurring. For smaller data sets (around 5 surveys) only large variations (typically >30%) are considered to indicate significant trip rate biasing is occurring. For the purposes of this assessment these thresholds have been applied to check for occurrences of trip rate biasing. Where bias has been identified, the higher of the mean or median mean trip rates have been applied as a 'worst case'.  
**In this case, given the non-significant variation, the Mean has been utilised for the calculation.**



## Appendix C – Household Data Analysis





**Comparison of 2011 Census Data - Population per Household in Urban and Rural Areas**

|                 | Usual Resident Population |            |            | Households |           |            | Average Population per Household |       |       |
|-----------------|---------------------------|------------|------------|------------|-----------|------------|----------------------------------|-------|-------|
|                 | Urban                     | Rural      | Total      | Urban      | Rural     | Total      | Urban                            | Rural | Total |
| Uttlesford      | 15,210                    | 64,233     | 79,443     | 6,402      | 24,914    | 31,316     | 2.38                             | 2.58  | 2.54  |
| Essex           | 1,032,982                 | 360,605    | 1,393,587  | 434,076    | 147,513   | 581,589    | 2.38                             | 2.44  | 2.40  |
| England & Wales | 45,726,291                | 10,349,621 | 56,075,912 | 19,035,452 | 4,330,592 | 23,366,044 | 2.40                             | 2.39  | 2.40  |

|                               |       |      |      |
|-------------------------------|-------|------|------|
| Difference to Essex           | -0.2% | 5.5% | 5.9% |
| Difference to England & Wales | -1.1% | 7.9% | 5.7% |

Therefore population per household (urban/rural) in Uttlesford is marginally higher than in Essex and in England and Wales but the difference is very small (+6%)

Based on the above analysis households in Uttlesford District have average populations very close to the County and England & Wales averages. There is therefore no justification for the use of 85th percentile person trip rates due to household occupancy levels.



## Appendix D – Person Trip Rates

**Summary of TRICS Person Trip Rates**

| TRICS - Person Trip Rates - Summary |                                      |                           |                    |       |       |          |       |            |       |
|-------------------------------------|--------------------------------------|---------------------------|--------------------|-------|-------|----------|-------|------------|-------|
| Land Use Class                      | Description                          | Average                   | Calculation Factor | 2-Way |       | Arrivals |       | Departures |       |
|                                     |                                      |                           |                    | AM    | PM    | AM       | PM    | AM         | PM    |
| B1                                  | Business Park                        | Mean (AM and PM)          | 100 sqm            | 2.293 | 1.85  | 2.069    | 0.198 | 0.224      | 1.652 |
| B2                                  | Industrial Estate                    | Mean (AM and PM)          | 100 sqm            | 0.817 | 0.62  | 0.546    | 0.144 | 0.271      | 0.476 |
| B8                                  | Warehousing (Commercial)             | Median (AM) and Mean (PM) | 100 sqm            | 0.089 | 0.07  | 0.077    | 0.02  | 0.021      | 0.05  |
| C3                                  | Residential - Houses Privately Owned | Mean (AM and PM)          | dwelling           | 1.042 | 0.936 | 0.245    | 0.583 | 0.797      | 0.353 |



## Appendix E – Modal Split Analysis

Residential

**Analysis of 2011 Census Data: 2011 Ward Boundaries**

| 2011 Wards                     | Census 2011: Resident Population (2011 Ward Boundaries) - Method of Travel to Work (Persons) |                       |                   |                |                                      |       |                       |      |                              |                      |                           |         |         |       |
|--------------------------------|--|-----------------------|-------------------|----------------|--------------------------------------|-------|-----------------------|------|------------------------------|----------------------|---------------------------|---------|---------|-------|
|                                | All People   | Not currently working | Currently Working | Work From Home | Underground, Metro, Light Rail, Tram | Train | Bus, Minibus or Coach | Taxi | Motorcycle, Scooter or Moped | Driving a Car or Van | Passenger in a Car or Van | Bicycle | On Foot | Other |
| Ashdon                         | 1,247  | 373                   | 874               | 96             | 1                                    | 83    | 11                    | 1    | 1                            | 592                  | 40                        | 9       | 36      | 4     |
| Barnston and High Easter       | 1,255  | 363                   | 892               | 90             | 9                                    | 38    | 15                    | 2    | 12                           | 643                  | 27                        | 3       | 51      | 2     |
| Clavering                      | 1,042  | 349                   | 693               | 91             | 3                                    | 94    | 3                     | 0    | 3                            | 438                  | 24                        | 6       | 29      | 2     |
| Elsenham and Henham            | 2,718  | 801                   | 1,917             | 175            | 6                                    | 223   | 21                    | 5    | 15                           | 1,289                | 79                        | 19      | 73      | 12    |
| Felsted                        | 3,777  | 1,131                 | 2,646             | 233            | 27                                   | 177   | 57                    | 10   | 24                           | 1,841                | 72                        | 32      | 153     | 20    |
| Great Dunmow North             | 2,718  | 785                   | 1,933             | 121            | 29                                   | 82    | 20                    | 11   | 9                            | 1,363                | 69                        | 15      | 203     | 11    |
| Great Dunmow South             | 3,520  | 967                   | 2,553             | 177            | 27                                   | 95    | 39                    | 7    | 15                           | 1,756                | 78                        | 39      | 327     | 16    |
| Hatfield Heath                 | 1,341  | 420                   | 921               | 114            | 10                                   | 71    | 11                    | 2    | 2                            | 606                  | 40                        | 6       | 54      | 5     |
| Littlebury                     | 1,224  | 394                   | 830               | 126            | 5                                    | 131   | 11                    | 0    | 2                            | 455                  | 39                        | 10      | 44      | 7     |
| Newport                        | 2,487  | 756                   | 1,731             | 152            | 3                                    | 253   | 24                    | 5    | 3                            | 1,123                | 56                        | 11      | 90      | 11    |
| Saffron Walden Audley          | 3,388  | 997                   | 2,391             | 198            | 5                                    | 237   | 28                    | 12   | 11                           | 1,317                | 82                        | 32      | 455     | 14    |
| Saffron Walden Shire           | 4,142  | 1,071                 | 3,071             | 140            | 9                                    | 174   | 60                    | 12   | 23                           | 1,938                | 149                       | 35      | 515     | 16    |
| Stansted North                 | 2,419  | 729                   | 1,690             | 155            | 8                                    | 242   | 16                    | 4    | 6                            | 1,064                | 64                        | 11      | 110     | 10    |
| Stebbing                       | 1,168  | 335                   | 833               | 94             | 14                                   | 35    | 9                     | 0    | 5                            | 600                  | 27                        | 6       | 39      | 4     |
| Stort Valley                   | 1,148  | 358                   | 790               | 96             | 5                                    | 87    | 4                     | 2    | 4                            | 517                  | 34                        | 7       | 28      | 6     |
| Thaxted                        | 2,474  | 742                   | 1,732             | 205            | 13                                   | 95    | 26                    | 1    | 8                            | 1,139                | 67                        | 10      | 157     | 11    |
| The Eastons                    | 1,150  | 332                   | 818               | 92             | 8                                    | 61    | 12                    | 1    | 7                            | 559                  | 22                        | 5       | 48      | 3     |
| The Rodings                    | 1,360  | 396                   | 964               | 114            | 23                                   | 40    | 9                     | 8    | 11                           | 673                  | 40                        | 5       | 38      | 8     |
| The Sampfords                  | 1,344  | 395                   | 949               | 121            | 6                                    | 88    | 20                    | 3    | 6                            | 612                  | 22                        | 6       | 56      | 9     |
| Wenden Lofts                   | 1,128  | 324                   | 804               | 116            | 6                                    | 113   | 4                     | 4    | 5                            | 496                  | 20                        | 6       | 32      | 2     |
| Wimbish and Debden             | 1,765  | 389                   | 1,376             | 147            | 4                                    | 81    | 18                    | 2    | 8                            | 666                  | 33                        | 90      | 315     | 12    |
| Birchanger                     | 1,180  | 286                   | 894               | 64             | 5                                    | 110   | 20                    | 2    | 7                            | 610                  | 29                        | 7       | 38      | 2     |
| Broad Oak and the Hallingburys | 2,573  | 734                   | 1,839             | 192            | 24                                   | 178   | 24                    | 7    | 13                           | 1,223                | 65                        | 9       | 93      | 11    |
| Saffron Walden Castle          | 3,463  | 1,010                 | 2,453             | 174            | 2                                    | 154   | 31                    | 8    | 11                           | 1,433                | 94                        | 41      | 489     | 16    |
| Stansted South                 | 2,391  | 578                   | 1,813             | 116            | 13                                   | 289   | 32                    | 3    | 9                            | 1,122                | 82                        | 23      | 119     | 5     |
| Takeley and the Canfields      | 3,467  | 967                   | 2,500             | 174            | 25                                   | 157   | 61                    | 9    | 12                           | 1,839                | 99                        | 26      | 85      | 13    |
| The Chesterfords               | 1,197  | 332                   | 865               | 94             | 1                                    | 107   | 5                     | 4    | 5                            | 532                  | 43                        | 12      | 57      | 5     |
| District Average               | 2,114  | 604                   | 1,510             | 136            | 11                                   | 129   | 22                    | 5    | 9                            | 979                  | 55                        | 17      | 138     | 9     |
| Urban Average                  | 3,109  | 872                   | 2,237             | 162            | 15                                   | 169   | 35                    | 7    | 12                           | 1,441                | 87                        | 23      | 273     | 12    |
| Rural Average                  | 1,617  | 470                   | 1,146             | 123            | 9                                    | 109   | 15                    | 3    | 7                            | 749                  | 39                        | 14      | 71      | 7     |

- Assumed to represent the urban area of Uttlesford

- Assumed to represent the rural areas of the District

| 2011 Wards       | Census 2011: Resident Population (2011 Ward Boundaries) - Method of Travel to Work (%) |        |                       |       |                              |                      |                           |         |         |       |         |
|------------------|--|--------|-----------------------|-------|------------------------------|----------------------|---------------------------|---------|---------|-------|---------|
|                  | Underground, Metro, Light Rail, Tram   | Train  | Bus, Minibus or Coach | Taxi  | Motorcycle, Scooter or Moped | Driving a Car or Van | Passenger in a Car or Van | Bicycle | On Foot | Other | Total   |
| District Average | 0.78%  | 9.42%  | 1.59%                 | 0.34% | 0.64%                        | 71.27%               | 4.02%                     | 1.23%   | 10.06%  | 0.64% | 100.00% |
| Urban Average    | 0.70%  | 8.17%  | 1.68%                 | 0.36% | 0.56%                        | 69.45%               | 4.20%                     | 1.12%   | 13.17%  | 0.60% | 100.00% |
| Rural Average    | 0.87%  | 10.69% | 1.51%                 | 0.31% | 0.72%                        | 73.12%               | 3.84%                     | 1.35%   | 6.91%   | 0.68% | 100.00% |

# Employment

**Analysis of 2011 Census Data: 2011 Middle Super Output Areas**

| 2011 Middle Super Output Areas | Census 2011: Workplace Population (2011 Ward Boundaries) - Method of Travel to Work (Persons) |                             |  |       |                       |      |                              |                      |                           |         |         |       |
|--------------------------------|---|-----------------------------|--|-------|-----------------------|------|------------------------------|----------------------|---------------------------|---------|---------|-------|
|                                | Total Persons   | Work mainly at or from home | Underground, metro, light rail or tram | Train | Bus, minibus or coach | Taxi | Motorcycle, scooter or moped | Driving a car or van | Passenger in a car or van | Bicycle | On foot | Other |
| Uttlesford 001                 | 3,675   | 560                         | 13                                     | 95    | 60                    | 12   | 17                           | 2,401                | 166                       | 52      | 291     | 8     |
| Uttlesford 002                 | 5,707   | 634                         | 10                                     | 73    | 129                   | 17   | 34                           | 3,223                | 315                       | 76      | 1,174   | 22    |
| Uttlesford 003                 | 2,427   | 766                         | 0                                      | 59    | 37                    | 4    | 6                            | 1,330                | 75                        | 31      | 111     | 8     |
| Uttlesford 004                 | 3,279   | 801                         | 5                                      | 36    | 28                    | 6    | 19                           | 1,600                | 92                        | 129     | 531     | 32    |
| Uttlesford 005                 | 4,006   | 948                         | 25                                     | 121   | 66                    | 19   | 16                           | 2,384                | 142                       | 35      | 226     | 24    |
| Uttlesford 006                 | 11,432  | 565                         | 39                                     | 575   | 729                   | 31   | 70                           | 8,747                | 414                       | 70      | 165     | 27    |
| Uttlesford 007                 | 3,577   | 413                         | 13                                     | 32    | 53                    | 18   | 25                           | 2,469                | 133                       | 33      | 378     | 10    |
| Uttlesford 008                 | 3,293   | 810                         | 8                                      | 53    | 45                    | 19   | 22                           | 1,880                | 112                       | 52      | 282     | 10    |
| Uttlesford 009                 | 2,890   | 720                         | 9                                      | 49    | 35                    | 13   | 11                           | 1,798                | 114                       | 18      | 114     | 9     |

**Averages:**

|                                     |       |     |    |     |     |    |    |       |     |    |       |    |
|-------------------------------------|-------|-----|----|-----|-----|----|----|-------|-----|----|-------|----|
| District Average                    | 4,476 | 691 | 14 | 121 | 131 | 15 | 24 | 2,870 | 174 | 55 | 364   | 17 |
| Urban City and Town Average         | 5,707 | 634 | 10 | 73  | 129 | 17 | 34 | 3,223 | 315 | 76 | 1,174 | 22 |
| Rural Town and Fringe               | 6,338 | 642 | 26 | 243 | 283 | 23 | 37 | 4,533 | 230 | 46 | 256   | 20 |
| Rural Village and Dispersed Average | 3,113 | 731 | 7  | 58  | 41  | 11 | 15 | 1,802 | 112 | 56 | 266   | 13 |

**Notes:**

1. Workplace population data is not available on a Ward basis from the 2011 Census therefore Middle Super Output Areas have been applied.
2. Census definitions applied for Urban/Rural areas.

| 2011 Middle Super Output Areas      | Census 2011: Workplace Population (2011 Ward Boundaries) - Method of Travel to Work (%) |       |                       |       |                              |                      |                           |         |         |       |         |
|-------------------------------------|---|-------|-----------------------|-------|------------------------------|----------------------|---------------------------|---------|---------|-------|---------|
|                                     | Underground, metro, light rail or tram  | Train | Bus, minibus or coach | Taxi  | Motorcycle, scooter or moped | Driving a car or van | Passenger in a car or van | Bicycle | On foot | Other | Total   |
| District Average                    | 0.36%   | 3.21% | 3.47%                 | 0.41% | 0.65%                        | 75.82%               | 4.59%                     | 1.46%   | 9.60%   | 0.44% | 100.00% |
| Urban City and Town Average         | 0.20%   | 1.44% | 2.54%                 | 0.34% | 0.67%                        | 63.53%               | 6.21%                     | 1.50%   | 23.14%  | 0.43% | 100.00% |
| Rural Town and Fringe               | 0.45%   | 4.26% | 4.96%                 | 0.40% | 0.65%                        | 79.58%               | 4.03%                     | 0.81%   | 4.50%   | 0.36% | 100.00% |
| Rural Village and Dispersed Average | 0.29%   | 2.45% | 1.72%                 | 0.45% | 0.63%                        | 75.66%               | 4.69%                     | 2.37%   | 11.16%  | 0.56% | 100.00% |





## Appendix F – Derivation of Vehicle Trip Rates

Residential

**Trip Rate and Modal Split Summary**

Person trips per dwelling are estimated from data obtained from the following trip rates obtained from the TRICS database. These represent person trips by all modes.

| TRICS Person Trips Per Dwelling (All Modes ) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound                                      | 0.245 | 0.583 |
| Outbound                                     | 0.797 | 0.353 |

**Note:** AM = 08:00 - 09:00, PM = 17:00 - 18:00

**Data Source:** TRICS v7.2.4 - Mean trip rates for 'Residential - Houses Privately Owned'.

Census 2011 Daytime Population 'Travel to Work' modal splits have then been used to estimate trips made by each mode of travel.

To represent different travel characteristics the modal split data has been averaged by Newark on Trent Wards, to represent urban wards, and all other wards to represent rural wards.

|               | Census 2011: Daytime Population (2011 Ward Boundaries) - Method of Travel to Work (%) |        |                       |       |                              |                      |                           |         |         |       |         |
|---------------|---|--------|-----------------------|-------|------------------------------|----------------------|---------------------------|---------|---------|-------|---------|
|               | Underground, Metro, Light Rail, Tram  | Train  | Bus, Minibus or Coach | Taxi  | Motorcycle, Scooter or Moped | Driving a Car or Van | Passenger in a Car or Van | Bicycle | On Foot | Other | Total   |
| Urban Average | 0.70%   | 8.17%  | 1.68%                 | 0.36% | 0.56%                        | 69.45%               | 4.20%                     | 1.12%   | 13.17%  | 0.60% | 100.00% |
| Rural Average | 0.87%   | 10.69% | 1.51%                 | 0.31% | 0.72%                        | 73.12%               | 3.84%                     | 1.35%   | 6.91%   | 0.68% | 100.00% |

**Note:** People working from home are ignored in the calculation because these are not relevant for employment sites.

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per dwelling as follows:

| Vehicle Trips Per Dwelling (Urban) |       |       |
|------------------------------------|-------|-------|
|                                    | AM    | PM    |
| Inbound                            | 0.170 | 0.405 |
| Outbound                           | 0.554 | 0.245 |

| Vehicle Trips Per Dwelling (Rural) |       |       |
|------------------------------------|-------|-------|
|                                    | AM    | PM    |
| Inbound                            | 0.179 | 0.426 |
| Outbound                           | 0.583 | 0.258 |

# Employment

**Trip Rate and Modal Split Summary - B1 Use-Class Employment**

Person trips per 100 sqm employment GFA are estimated from data obtained from the following trip rates obtained from the TRICS database. These represent person trips by all modes.

| TRICS Person Trips Per 100sqm GFA (All Modes ) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 2.069 | 0.198 |
| Outbound                                       | 0.224 | 1.652 |

**Note:** AM = 08:00 - 09:00, PM = 17:00 - 18:00

**Data Source:** TRICS v7.2.4 - Mean trip rates for 'Employment - Business Park'.

Census 2011 Workplace Population 'Travel to Work' modal splits have then been used to estimate trips made by each mode of travel.

To represent different travel characteristics the modal split data has been averaged by Newark on Trent Wards, to represent urban wards, and all other wards to represent rural wards.

|                                     | Census 2011: Workplace Population (2011 Ward Boundaries) - Method of Travel to Work (%) |       |                       |       |                              |                      |                           |         |         |       |         |
|-------------------------------------|---|-------|-----------------------|-------|------------------------------|----------------------|---------------------------|---------|---------|-------|---------|
|                                     | Underground, metro, light rail or tram  | Train | Bus, minibus or coach | Taxi  | Motorcycle, scooter or moped | Driving a car or van | Passenger in a car or van | Bicycle | On foot | Other | Total   |
| Urban City and Town Average         | 0.20%   | 1.44% | 2.54%                 | 0.34% | 0.67%                        | 63.53%               | 6.21%                     | 1.50%   | 23.14%  | 0.43% | 100.00% |
| Rural Town and Fringe               | 0.45%   | 4.26% | 4.96%                 | 0.40% | 0.65%                        | 79.58%               | 4.03%                     | 0.81%   | 4.50%   | 0.36% | 100.00% |
| Rural Village and Dispersed Average | 0.29%   | 2.45% | 1.72%                 | 0.45% | 0.63%                        | 75.66%               | 4.69%                     | 2.37%   | 11.16%  | 0.56% | 100.00% |

**Note:** People working from home are ignored in the calculation because these are not relevant for employment sites.

The summary in the table above represents what would be expected with highest car and bus use in rural wards and highest cycle, walking and rail use in urban wards.

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per 100sqm GFA as follows:

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 1.314 | 0.126 |
| Outbound   | 0.142 | 1.050 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 1.647 | 0.158 |
| Outbound   | 0.178 | 1.315 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 1.565 | 0.150 |
| Outbound   | 0.169 | 1.250 |

**Note:** TRICS 'Total People' trip rates include OGV drivers arriving/departing employment sites. The resultant vehicle trip generation therefore includes a small volume of OGV trips.

**Trip Rate and Modal Split Summary - B2 Use-Class Employment**

Person trips per 100 sqm employment GFA are estimated from data obtained from the following trip rates obtained from the TRICS database. These represent person trips by all modes.

| TRICS Person Trips Per 100sqm GFA (All Modes ) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.546 | 0.144 |
| Outbound                                       | 0.271 | 0.476 |

**Note:** AM = 08:00 - 09:00, PM = 17:00 - 18:00

**Data Source:** TRICS v7.2.4 - Mean trip rates for 'Employment - Industrial Estates'.

Census 2011 Workplace Population 'Travel to Work' modal splits have then been used to estimate trips made by each mode of travel.

To represent different travel characteristics the modal split data has been averaged by Newark on Trent Wards, to represent urban wards, and all other wards to represent rural wards.

|                                     | Census 2011: Workplace Population (2011 Ward Boundaries) - Method of Travel to Work (%) |       |                       |       |                              |                      |                           |         |         |       |         |
|-------------------------------------|---|-------|-----------------------|-------|------------------------------|----------------------|---------------------------|---------|---------|-------|---------|
|                                     | Underground, metro, light rail or tram  | Train | Bus, minibus or coach | Taxi  | Motorcycle, scooter or moped | Driving a car or van | Passenger in a car or van | Bicycle | On foot | Other | Total   |
| Urban City and Town Average         | 0.20%   | 1.44% | 2.54%                 | 0.34% | 0.67%                        | 63.53%               | 6.21%                     | 1.50%   | 23.14%  | 0.43% | 100.00% |
| Rural Town and Fringe               | 0.45%   | 4.26% | 4.96%                 | 0.40% | 0.65%                        | 79.58%               | 4.03%                     | 0.81%   | 4.50%   | 0.36% | 100.00% |
| Rural Village and Dispersed Average | 0.29%   | 2.45% | 1.72%                 | 0.45% | 0.63%                        | 75.66%               | 4.69%                     | 2.37%   | 11.16%  | 0.56% | 100.00% |

**Note:** People working from home are ignored in the calculation because these are not relevant for employment sites.

The summary in the table above represents what would be expected with highest car and bus use in rural wards and highest cycle, walking and rail use in urban wards.

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per 100sqm GFA as follows:

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.347 | 0.091 |
| Outbound   | 0.172 | 0.302 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.435 | 0.115 |
| Outbound   | 0.216 | 0.379 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.413 | 0.109 |
| Outbound   | 0.205 | 0.360 |

**Note:** TRICS 'Total People' trip rates include OGV drivers arriving/departing employment sites. The resultant vehicle trip generation therefore includes a small volume of OGV trips.

**Trip Rate and Modal Split Summary - B8 Use-Class Employment**

Person trips per 100 sqm employment GFA are estimated from data obtained from the following trip rates obtained from the TRICS database. These represent person trips by all modes.

| TRICS Person Trips Per 100sqm GFA (All Modes ) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.077 | 0.020 |
| Outbound                                       | 0.021 | 0.050 |

**Note:** AM = 08:00 - 09:00, PM = 17:00 - 18:00

**Data Source:** TRICS v7.2.4 - Median (AM) and Mean (PM) trip rates for 'Employment - Warehouse (Commercial)'.

Census 2011 Workplace Population 'Travel to Work' modal splits have then been used to estimate trips made by each mode of travel.

To represent different travel characteristics the modal split data has been averaged by Newark on Trent Wards, to represent urban wards, and all other wards to represent rural wards.

|                                     | Census 2011: Workplace Population (2011 Ward Boundaries) - Method of Travel to Work (%) |       |                       |       |                              |                      |                           |         |         |       |         |
|-------------------------------------|---|-------|-----------------------|-------|------------------------------|----------------------|---------------------------|---------|---------|-------|---------|
|                                     | Underground, metro, light rail or tram  | Train | Bus, minibus or coach | Taxi  | Motorcycle, scooter or moped | Driving a car or van | Passenger in a car or van | Bicycle | On foot | Other | Total   |
| Urban City and Town Average         | 0.20%   | 1.44% | 2.54%                 | 0.34% | 0.67%                        | 63.53%               | 6.21%                     | 1.50%   | 23.14%  | 0.43% | 100.00% |
| Rural Town and Fringe               | 0.45%   | 4.26% | 4.96%                 | 0.40% | 0.65%                        | 79.58%               | 4.03%                     | 0.81%   | 4.50%   | 0.36% | 100.00% |
| Rural Village and Dispersed Average | 0.29%   | 2.45% | 1.72%                 | 0.45% | 0.63%                        | 75.66%               | 4.69%                     | 2.37%   | 11.16%  | 0.56% | 100.00% |

**Note:** People working from home are ignored in the calculation because these are not relevant for employment sites.

The summary in the table above represents what would be expected with highest car and bus use in rural wards and highest cycle, walking and rail use in urban wards.

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per 100sqm GFA as follows:

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.049 | 0.013 |
| Outbound   | 0.013 | 0.032 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.061 | 0.016 |
| Outbound   | 0.017 | 0.040 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.058 | 0.015 |
| Outbound   | 0.016 | 0.038 |

**Note:** TRICS 'Total People' trip rates include OGV drivers arriving/departing employment sites. The resultant vehicle trip generation therefore includes a small volume of OGV trips.



## Appendix G – Trip Rate Comparison





### C3 - Residential

#### Census 2011 Method Calculation Results

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per dwelling as follows:

| Vehicle Trips Per Dwelling (Urban) |       |       |
|------------------------------------|-------|-------|
|                                    | AM    | PM    |
| Inbound                            | 0.170 | 0.405 |
| Outbound                           | 0.554 | 0.245 |
| 2-Way                              | 0.724 | 0.650 |

| Vehicle Trips Per Dwelling (Rural) |       |       |
|------------------------------------|-------|-------|
|                                    | AM    | PM    |
| Inbound                            | 0.179 | 0.426 |
| Outbound                           | 0.583 | 0.258 |
| 2-Way                              | 0.762 | 0.684 |

#### TRICS calculation Results

| Vehicle Trips Per Dwelling (All Location Types) |       |       |
|---|-------|-------|
|   | AM    | PM    |
| Inbound   | 0.152 | 0.351 |
| Outbound  | 0.396 | 0.211 |
| 2-Way   | 0.548 | 0.562 |



## B1 - Use-Class Employment

### Census 2011 Method Calculation Results

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per 100sqm GFA as follows:

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 1.314 | 0.126 |
| Outbound   | 0.142 | 1.050 |
| 2-Way  | 1.457 | 1.175 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 1.647 | 0.158 |
| Outbound   | 0.178 | 1.315 |
| 2-Way  | 1.825 | 1.472 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 1.565 | 0.150 |
| Outbound   | 0.169 | 1.250 |
| 2-Way  | 1.735 | 1.400 |

### TRICS calculation Results

| Vehicle Trips Per 100sqm GFA (All Location Types) |       |       |
|---|-------|-------|
|   | AM    | PM    |
| Inbound   | 1.425 | 0.171 |
| Outbound  | 0.242 | 1.122 |
| 2-Way   | 1.667 | 1.293 |

## B2 - Use-Class Employment

### Census 2011 Method Calculation Results

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per 100sqm GFA as follows:

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.347 | 0.091 |
| Outbound   | 0.172 | 0.302 |
| 2-Way  | 0.519 | 0.394 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.435 | 0.115 |
| Outbound   | 0.216 | 0.379 |
| 2-Way  | 0.650 | 0.493 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.413 | 0.109 |
| Outbound   | 0.205 | 0.360 |
| 2-Way  | 0.618 | 0.469 |

### TRICS calculation Results

| Vehicle Trips Per 100sqm GFA (All Location Types) |       |       |
|---|-------|-------|
|   | AM    | PM    |
| Inbound   | 0.386 | 0.086 |
| Outbound  | 0.170 | 0.371 |
| 2-Way   | 0.556 | 0.457 |



## B8 - Use-Class Employment

### Census 2011 Method Calculation Results

Multiplying the TRICS Person Trip rates by the percentage of persons 'Driving a Car or Van' provides trip rates for vehicle trip generation per 100sqm GFA as follows:

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.049 | 0.013 |
| Outbound   | 0.013 | 0.032 |
| 2-Way  | 0.062 | 0.044 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.061 | 0.016 |
| Outbound   | 0.017 | 0.040 |
| 2-Way  | 0.078 | 0.056 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |       |       |
|--|-------|-------|
|  | AM    | PM    |
| Inbound  | 0.058 | 0.015 |
| Outbound   | 0.016 | 0.038 |
| 2-Way  | 0.074 | 0.053 |

### TRICS calculation Results

| Vehicle Trips Per 100sqm GFA (All Location Types) |       |       |
|---|-------|-------|
|   | AM    | PM    |
| Inbound   | 0.085 | 0.035 |
| Outbound  | 0.047 | 0.090 |
| 2-Way   | 0.132 | 0.125 |



### **Vehicle Trip Rates for Use in the Transport Study**

| Vehicle Trips Per 100sqm GFA (Urban City and Town) |                |       |             |       |               |       |              |       |
|--|----------------|-------|-------------|-------|---------------|-------|--------------|-------|
|  | C3 Residential |       | B1 Business |       | B2 Industrial |       | B8 Warehouse |       |
|  | AM             | PM    | AM          | PM    | AM            | PM    | AM           | PM    |
| Inbound  | 0.170          | 0.405 | 1.314       | 0.126 | 0.347         | 0.091 | 0.085        | 0.035 |
| Outbound   | 0.554          | 0.245 | 0.142       | 1.050 | 0.172         | 0.302 | 0.047        | 0.090 |
| 2-Way  | 0.724          | 0.650 | 1.457       | 1.175 | 0.519         | 0.394 | 0.132        | 0.125 |

| Vehicle Trips Per 100sqm GFA (Rural Town and Fringe) |                |    |             |       |               |       |              |       |
|--|----------------|----|-------------|-------|---------------|-------|--------------|-------|
|  | C3 Residential |    | B1 Business |       | B2 Industrial |       | B8 Warehouse |       |
|  | AM             | PM | AM          | PM    | AM            | PM    | AM           | PM    |
| Inbound  | -              | -  | 1.647       | 0.158 | 0.435         | 0.115 | 0.085        | 0.035 |
| Outbound   | -              | -  | 0.178       | 1.315 | 0.216         | 0.379 | 0.047        | 0.090 |
| 2-Way  | -              | -  | 1.825       | 1.472 | 0.650         | 0.493 | 0.132        | 0.125 |

| Vehicle Trips Per 100sqm GFA (Rural Village and Dispersed) |                |       |             |       |               |       |              |       |
|--|----------------|-------|-------------|-------|---------------|-------|--------------|-------|
|  | C3 Residential |       | B1 Business |       | B2 Industrial |       | B8 Warehouse |       |
|  | AM             | PM    | AM          | PM    | AM            | PM    | AM           | PM    |
| Inbound  | 0.179          | 0.426 | 1.565       | 0.150 | 0.413         | 0.109 | 0.085        | 0.035 |
| Outbound   | 0.583          | 0.258 | 0.169       | 1.250 | 0.205         | 0.360 | 0.047        | 0.090 |
| 2-Way  | 0.762          | 0.684 | 1.735       | 1.400 | 0.618         | 0.469 | 0.132        | 0.125 |

**Notes:**

Residential trip rates calculated using Ward level data and rural/urban Wards identified from OS mapping.

Employment trip rates calculated using Middle Super Output Areas and 2011 Census definitions applied for Urban/Rural areas.



## **Appendix C – TN3 – Site Accessibility**



## Uttlesford District Council

### District Wide Transport Study

#### Technical Note 3 – Site Accessibility Appraisal Methodology

##### 1 Introduction

- 1.1 This note has been produced to summarise the methodology used to appraise the accessibility of the Areas of Search (AoS) being considered by the Transport Study.

##### 2 Areas of Search

- 2.1 The AoS under consideration are indicated in the plans in **Appendix A** which have been extracted from the 'Uttlesford Local Plan Issues and Options Consultation Document 22 October – 4 December 2015'.

##### 3 Green Belt Review

- 3.1 In February 2016 a review of the existing Green Belt within Uttlesford was undertaken by Arup consultants on behalf of the District Council. The review assessed the Uttlesford Green Belt against the purposes of Green Belt as defined by the National Planning Policy Framework (NPPF).
- 3.2 Protection of Green Belt around urban areas is a core planning principle of the NPPF. Policy for protecting Green Belt land is set out in section 9 of the Framework which emphasises the great importance that the Government attaches to Green Belts.
- 3.3 The NPPF advocates openness and permanence as essential characteristics of the Green Belt stating that *'the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open'* (paragraph 79). The NPPF details five purposes of the Green Belt:
1. *'To check the unrestricted sprawl of large built-up areas;*
  2. *To prevent neighbouring towns merging into one another;*
  3. *To assist in safeguarding the countryside from encroachment;*
  4. *To preserve the setting and special character of historic towns; and*
  5. *To assist in urban regeneration, by encouraging the recycling of derelict and other urban land'. (paragraph 80)*
- 3.4 The Council will therefore seek to protect the Green Belt in accordance with the guidance contained within the NPPF. This effectively means that Areas of Search located within the Green Belt can be removed from the Transport Study.
- 3.5 The findings of the Green Belt Review were that *'There are no General Areas which do not meet Green Belt purposes and therefore no parcels in their entirety are recommended for further consideration for release'*. As a result the existing Green Belt effectively remains unchanged and a plan depicting the extent of the Green Belt can be found in **Appendix B**.



3.6 Comparing this plan to the AoS plans it can be seen that the following AoS are located within Green Belt and will therefore be removed from further consideration in the Transport Study:

- New Settlement AoS 4 – Birchanger
- Town AoS 11a – North of Bishops Stortford
- Town AoS 11b – South of Bishops Stortford
- Key Village AoS – Hatfield Heath
- Key Village AoS – Stansted Mountfitchet – areas to west, south and east

#### **4 Countryside Protection Zone Review**

4.1 In early 2016 UDC appointed consultants to undertake a review of the Countryside Protection Zone (CPZ) surrounding Stansted Airport. The study concluded in June 2016. The purpose of the CPZ is to maintain a local belt of open countryside around the airport which will not be eroded by coalescing development, as stated in Policy S8 of the Uttlesford Local Plan:

*'The area and boundaries of the Countryside Protection Zone around Stansted Airport are defined on the Proposals Map. In the Countryside Protection Zone planning permission will only be granted for development that is required to be there, or is appropriate to a rural area. There will be strict control on new development. In particular development will not be permitted if either of the following apply:*

*a) New buildings or uses would promote coalescence between the airport and existing development in the surrounding countryside;*

*b) It would adversely affect the open characteristics of the zone.'*

4.2 The findings of the CPZ review concluded that the existing CPZ is 'fit for purpose' and should be carried forward into the new Local Plan. No parcels of land were identified for removal from the CPZ although some possible minor boundary revisions were identified to strengthen its relationship to features on the ground.

4.3 A plan depicting the Uttlesford CPZ is included in **Appendix C**. Based on this the following AoS were removed from further consideration in the Transport Study:

- New Settlement AoS 5 – Southeast of M11 Junction 8
- New Settlement AoS 6 – South of A120 North of Hatfield Forest

#### **5 Promoted Sites**

5.1 As mentioned earlier the AoS presented identified in **Appendix A** were taken from UDC's Local Plan Issues and Options Consultation Document. As part of the Local Plan preparation process UDC has also undertaken a 'Call for Sites Consultation' and this has identified several AoS where no interest has been received for development in these locations. The following AoS have therefore not been considered further in the study:

- New Settlement AoS 2 - M11 Junction 9 West
- New Settlement AoS 5 – Southeast of M11 Junction 8
- New Settlement AoS 6 – South of A120, North of Hatfield Forest
- New Settlement AoS 8 – South of A120, South of Gt. Dunmow



## 6 Resultant Areas of Search

6.1 Taking into account the sites that are ruled out by the Green Belt and AoS where no interest has been received the transport study will consider the following:

| Ref                    | AoS   |
|------------------------|---|
| <b>New Settlements</b> |   |
| NS1                    | M11 Junction 9a East  |
| NS2                    | M11 Junction 9 West (no sites promoted)                       |
| NS3                    | Elsenham  |
| NS4                    | M11 Junction 8 – Northwest (Greenbelt)                        |
| NS5                    | M11 Junction 8 – Southeast (no sites promoted)                |
| NS6                    | South of A120, North of Hatfield Forest (no sites promoted)   |
| NS7                    | North of A120, West of Gt. Dunmow                             |
| NS8                    | South of A120, South of Gt. Dunmow (no sites promoted)        |
| NS9                    | West of Braintree   |
| <b>Market Towns</b>    |   |
| MT1                    | Saffron (7 sites)   |
| MT2                    | Gt. Dunmow (6 sites)  |
| MT3                    | Edge of Bishops Stortford (2 sites – 11a and 11b) (Greenbelt) |
| <b>Key Villages</b>    |   |
| KV1                    | Elsenham  |
| KV2                    | Gt. Chesterford   |
| KV3                    | Hatfield Heath (Greenbelt)                                    |
| KV4                    | Newport   |
| KV5                    | Stansted Mountfitchet (North only)                            |
| KV6                    | Takeley   |
| KV7                    | Thaxted   |

**Note:** The AoS that are greyed out in the table above have not been considered further for the reasons explained in the preceding paragraphs.

## 7 DfT Accessibility Statistics

7.1 Accessibility is the extent to which individuals and households can access day to day services, such as employment, education, healthcare, food stores and town centres. Locating new residential development in locations with good accessibility to key facilities and services helps to minimise the need to travel.

7.2 The DfT maintains national accessibility statistics on households at Local Authority (LA) and Lower Super Output Area (LSOA) level. The accessibility statistics measure access to the ten following key services:

- Employment centres (small = 100 to 499 jobs)
- Employment centres (medium = 500 to 4,999 jobs)
- Employment centres (large = > 5,000 jobs)
- Primary schools
- Secondary schools
- Further Education institutions (sixth form schools/colleges)
- GPs
- Hospitals (large NHS hospitals managed by Acute (non-specialist) Trusts)
- Food stores
- Town Centres



7.3 Key indicators are used to determine accessibility (see **Appendix D** for details of the DfT methodology). There are three different types of indicator; travel time, destination and origin:

- **Travel time indicators** – quantify the average shortest time taken by users to reach the nearest destination - for example: the time taken to travel to the nearest employment centre. The travel time indicators measure the time taken for users to reach the nearest service by mode of transport (public transport/walking, cycle and car).
- **Destination indicators** – quantify the proportion of users that can access a service within a certain time – four measures are provided – the percentages of service users within the given geographical area who can access at least one service location within 15, 30, 45 and 60 minutes.
- **Origin indicators** – quantify the number of sites available to users in a particular area – four measures are provided – the number of destinations (up to the maximum of 10) that can be reached from a given origin within 15, 30, 45 and 60 minutes).

7.4 **Users** represent the subset of the resident population relevant for the trip purpose and who would therefore be most likely to use that service. For example, for primary schools, the target population is children aged 5-10 years old.

7.5 The accessibility statistics are constructed using three modes of travel:

- Walking and/or public transport (bus, coach, rail, metro, ferry)
- Cycling
- Car

## **8 Accessibility Appraisal - Existing Accessibility**

8.1 Relative accessibility across the District has been examined using destination indicators (i.e. the number of sites available to users in a particular LSOA). Destination indicators are considered to be most appropriate for use in this appraisal because the data is provided as absolute numbers (as opposed to percentages) which allows totals to be calculated for multiple services.

8.2 Destination data has therefore been extracted for all Lower Super Output Areas (LSOA) within Uttlesford District and used as an indicator of accessibility by sustainable travel modes (i.e. the more destinations that can be reached by sustainable modes within each time period the greater the implied accessibility).

8.3 The numbers of destinations (up to the maximum of 10 used by the DfT) that can be reached from each LSOA within 15, 30, 45 and 60 minutes when travelling by sustainable modes have been totalled for all 10 key services.

8.4 As the number of destinations for each indicator is capped at 10 in the DfT data the overall maximum score for each LSOA is 100. The total scores have therefore been expressed as a percentage of the maximum score available and the results plotted using GIS. The plots can be found in **Appendix E**.



- 8.5 Plots are presented in **Appendix E** for the following:
- Walking and/or public transport (bus, coach, rail, metro, ferry) (015)
  - Cycling (016)
  - Total Sustainable Modes (total walking/public transport and cycling) (017)
  - Car (018)
- 8.6 After discussion with UDC and Essex County Council (ECC) it was agreed that the 30 and 45 minute travel bands for travel by 'Total Sustainable Modes' would be used as an indicator of relative accessibility (i.e. drawing 017 in **Appendix E**). The other plots are provided for information. These time bands were selected as these plots provide the greatest contrast between individual LSOAs and are considered 'reasonable' travel times to reach key indicator destinations by sustainable travel modes.
- 8.7 From drawing number 017 in **Appendix E** it can be seen that there is a clear correlation between the most accessible LSOAs and the key transport corridors within the District:
- North/South - M11, B1383, West Anglia Main Line railway
  - East/West – A120, B1256
- 8.8 In addition, LSOAs adjacent to, or between key settlements within Uttlesford District (Saffron Walden, Stansted Mountfitchet, Great Dunmow, Takeley) or within adjacent authority areas (Bishops Stortford, Braintree, Harlow) have the greatest relative accessibility whilst the rural areas of the District have the lowest.
- 8.9 Due to the limitations of the DfT data and the relatively large size of the LSOAs it isn't possible to identify specific AoS that have the greatest accessibility. However, the results of the assessment support the District Council's selection of the New Settlement AoS for future Local Plan growth as these are located within, or close to LSOAs with relatively high accessibility, particularly the AoS that are situated west of Braintree, west of Great Dunmow and at Elsenham.



## 9 Accessibility Appraisal - Future Accessibility

- 9.1 New residential development will be required to provide, or contribute towards, the provision of new infrastructure in order to mitigate the impacts of an increased population on existing facilities. This will be secured through planning obligations, Community Infrastructure Levy (CIL) or Section 106 Agreements and will cover a range of physical (highways, flood defences, etc.) and social infrastructure (healthcare, education, community centres, etc.).
- 9.2 Other provision, such as retail and private sports and leisure facilities are typically commercial profit making operations and their delivery is therefore driven by commercial opportunity/market forces.
- 9.3 It is therefore considered reasonable to assume that a significant new residential development would be capable of improving its accessibility to the following key services by providing new/improved facilities as part of, or in the vicinity of the development:
- Primary School
  - Secondary School
  - Further Education
  - GP
  - Food store
- 9.4 The Essex County Council (ECC) document "Developers Guide to Infrastructure Contributions, 2016" (see relevant extracts in **Appendix F**) provides guidance on calculating the financial contributions expected from new developments towards the provision of key infrastructure.
- 9.5 This document sets out thresholds for the provision of new schools (see Page 33) and identifies that a development of 700 new houses or a mixed development of approaching 1,000 dwellings (i.e. a mix of houses and flats) will generate the demand for a new one form entry (1FE) primary school (based on a primary school place yield of 0.3 per house).
- 9.6 With regards to secondary education the note states that '*new schools are only likely to be required to serve large green field sites*'. Four forms of entry (600 pupils in the 11 to 16 age range), is the minimum secondary school size normally considered to be financially viable by the County Council and this equates to a development of some 3,000 houses (based on a secondary school place yield of 0.2 per house).
- 9.7 Large residential developments that meet these thresholds would therefore be expected to deliver new primary and/or secondary schools close to, or as an integral part of the development to minimise the need to travel, thereby enhancing the site's overall accessibility. The education demand generated by smaller residential development sites is more likely to be accommodated by available places in existing schools or by expanding existing schools, which may be located remote from the site and therefore less likely to enhance overall accessibility.
- 9.8 The document in **Appendix F** also covers contributions towards other service areas delivered by the County Council including; early years and childcare, youth, social care and public health, highways and transportation, sustainable travel, passenger transport, public rights of way and libraries. Contributions towards these could therefore also result in a development site improving its overall accessibility through the provision of new/improved facilities in the local area.



- 9.9 To take the effects of improved accessibility through developer contributions into account the numbers of destinations (up to the maximum of 10) that can be reached from each LSOA within 15, 30, 45 and 60 minutes when travelling by sustainable modes have also been totalled for the following five key services only:
- Employment centres (small = 100 to 499 jobs)
  - Employment centres (medium = 500 to 4,999 jobs)
  - Employment centres (large = > 5,000 jobs)
  - Hospitals (large NHS hospitals managed by Acute (non-specialist) Trusts)
  - Town Centres
- 9.10 These key services are considered to be those that new development has the least potential to influence through the provision of new/improved infrastructure and for the purposes of this assessment have been referred to as the 'Low Influence' services.
- 9.11 As the number of destinations for each of the 'Low Influence' key services is capped at 10 in the DfT data the overall maximum score for each LSOA is 50. The total scores have therefore been expressed as a percentage of the maximum score available and the results plotted using GIS. The plots can be found in **Appendix G**.
- 9.12 Plots are presented in **Appendix G** for the following:
- Walking and/or public transport (bus, coach, rail, metro, ferry) (Plot 011)
  - Cycling (Plot 012)
  - Total Sustainable Modes (total walking/public transport and cycling) (Plot 013)
  - Car (Plot 014)
- 9.13 From plot number 013 in **Appendix G** it can be seen that there is the same correlation between the most accessible LSOAs and the key transport corridors and key settlements as for the plots for all 10 key services presented in **Appendix E**. The pattern of distribution of the LSOAs with the relatively highest accessibility is very similar, although the number of LSOAs in the upper 50% of accessible destinations is reduced.

## 10 Conclusions

- 10.1 Due to the limitations of the DfT data and the relatively large size of the LSOAs it isn't possible to identify specific AoS that have the greatest relative accessibility. However, the results of the assessment support the District Council's selection of the New Settlement AoS for future Local Plan growth as these are located within, or close to LSOAs with relatively high accessibility. In addition, no significant difference in accessibility has been identified between the AoS under consideration.
- 10.2 The assessment also confirms that the rural areas of the District have lower relative accessibility and are therefore considered less suitable for significant Local Plan growth.



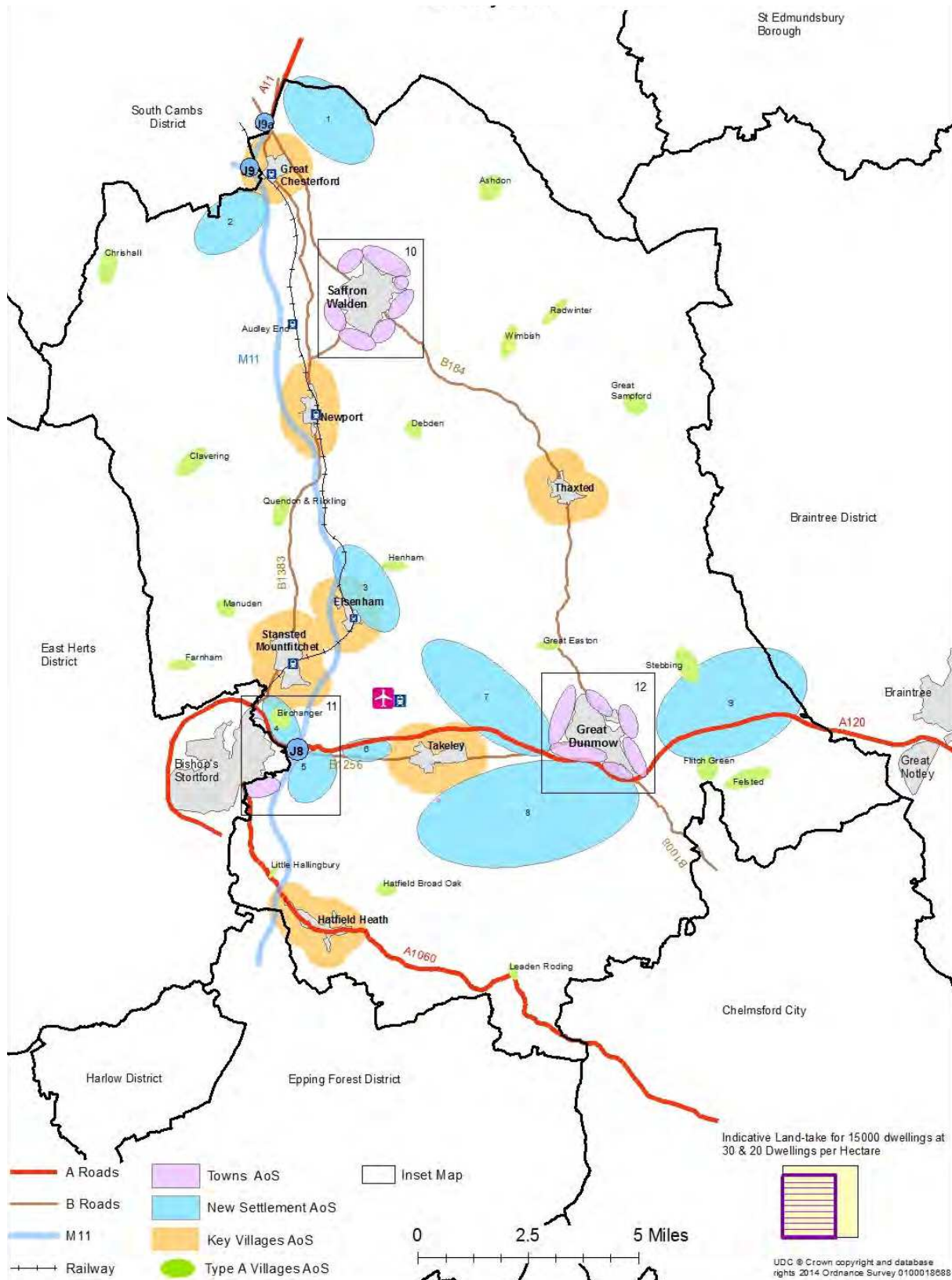
## Appendices



## Appendix A – Areas of Search (Extracts from the Issues and Options Report)

### 3 Areas of Search

Figure 1 Areas of Search



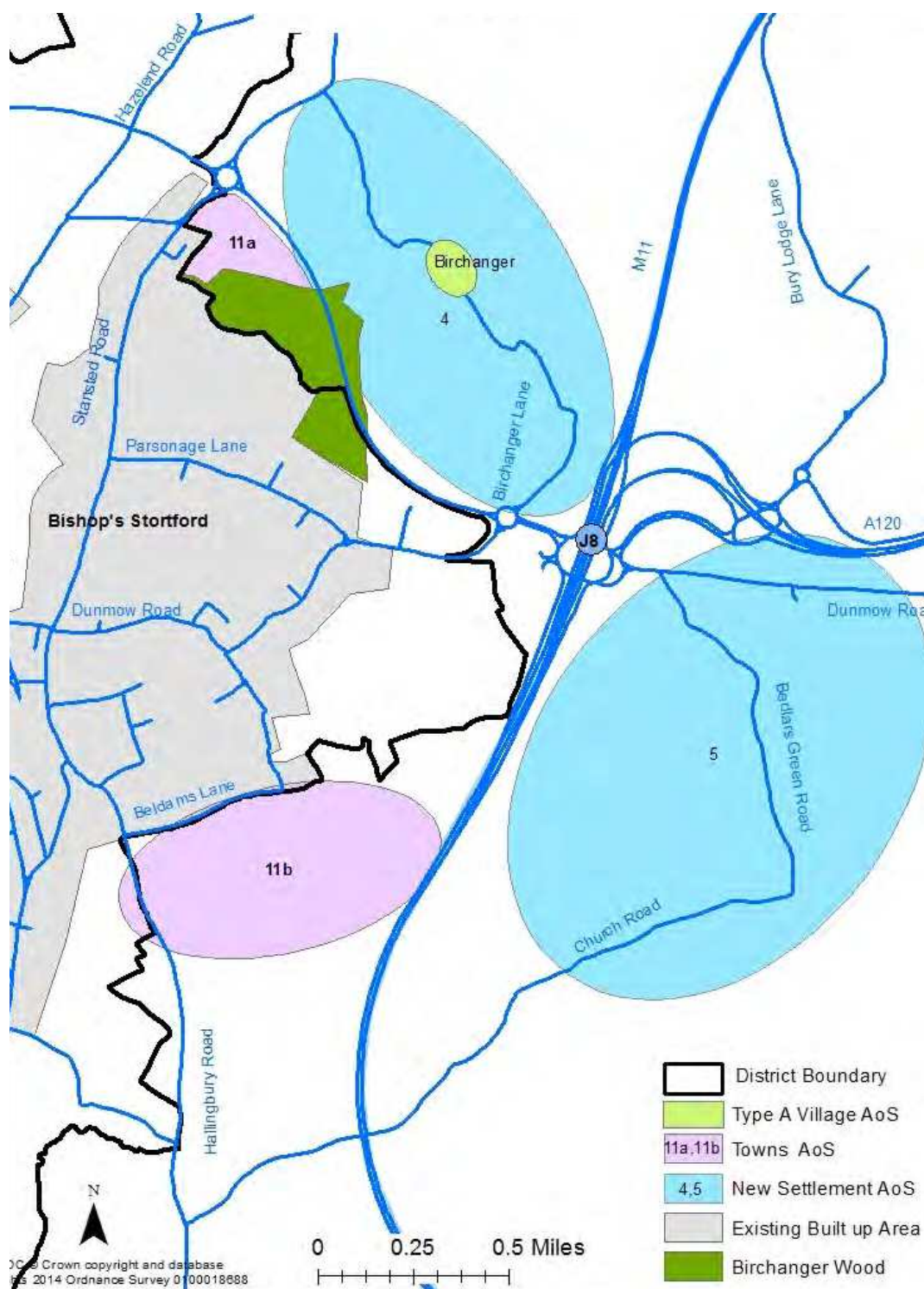


### 3 Areas of Search

#### 3.3 Edge of Bishop's Stortford (within Uttlesford District)

An inset map has been prepared which shows the potential for two Areas of Search 11a and 11b, which are immediately adjoining the town. Figure 3 below shows these areas in mauve. The new settlement Areas of Search shown in blue are addressed in Section 3.1 above, and the Area of Search for Birchanger Village is addressed in Section 3.5 below.

Figure 3 Edge of Bishop's Stortford Areas of Search

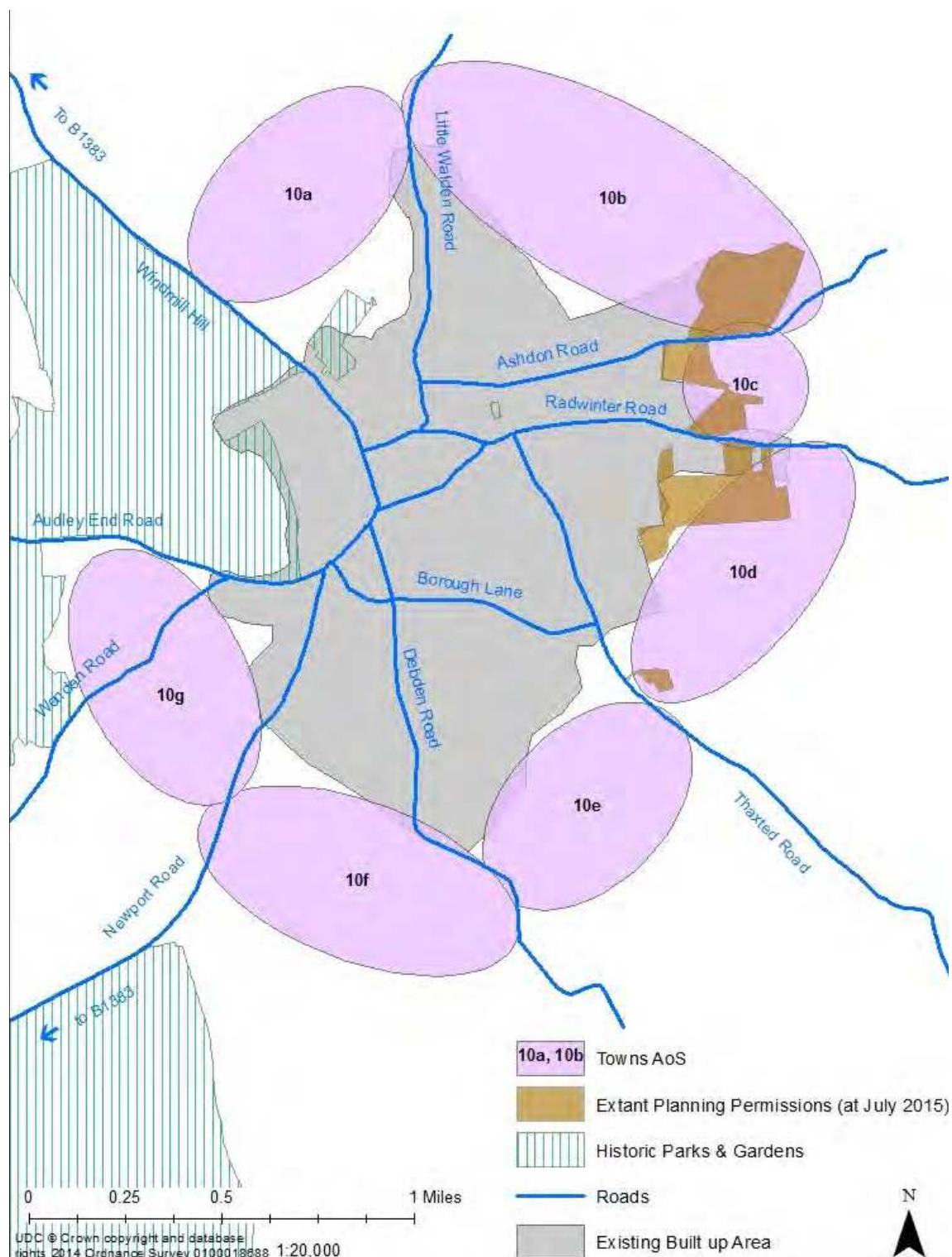


### 3 Areas of Search

#### 3.2 Saffron Walden

An inset map of Saffron Walden has been prepared which shows the potential for seven Areas of Search around the town as shown in Figure 2. Land west of Saffron Walden at Audley Park Registered Historic Park will be excluded from further consideration.

Figure 2 Saffron Walden Areas of Search

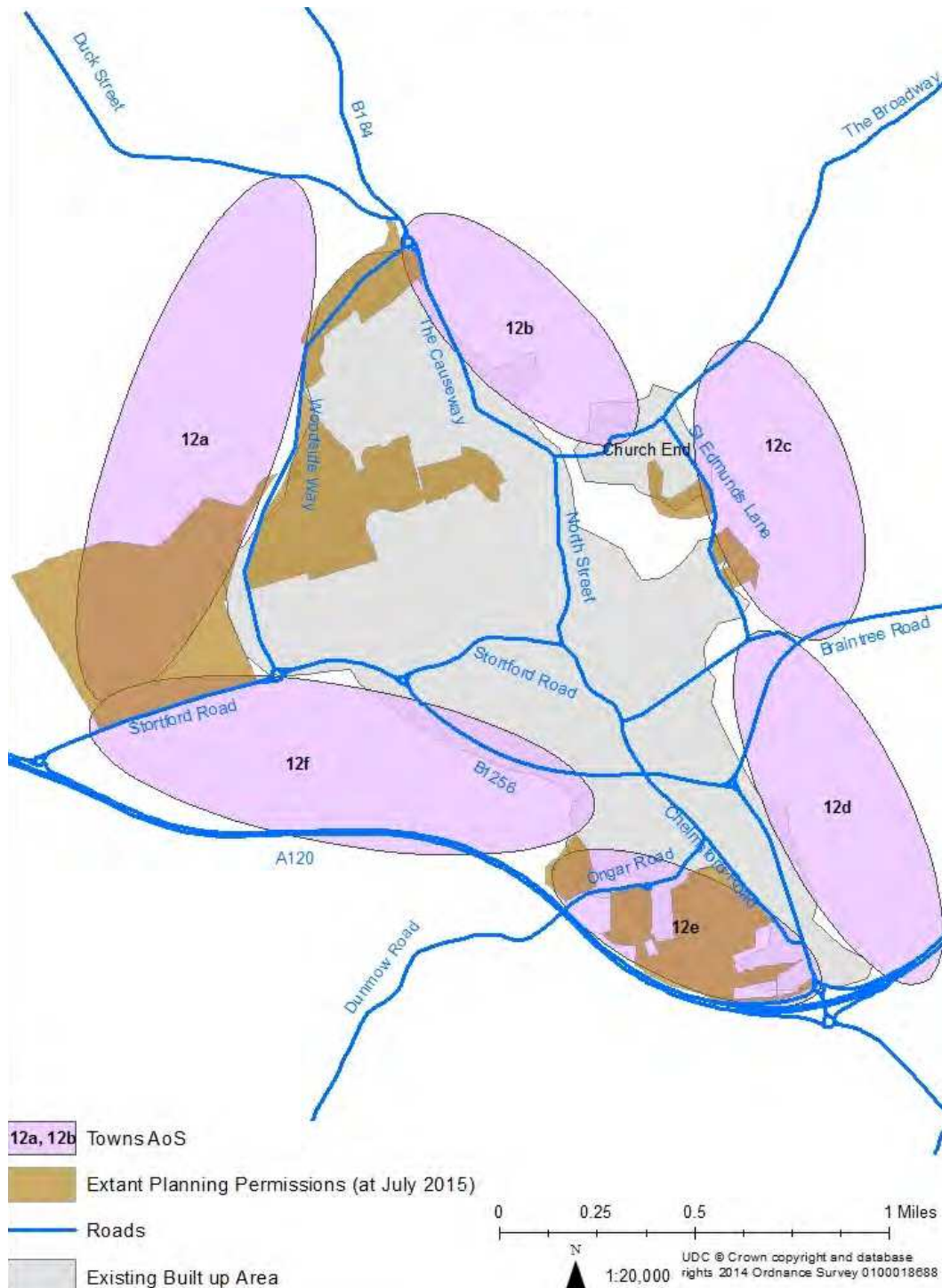


### 3 Areas of Search

#### 3.4 Great Dunmow

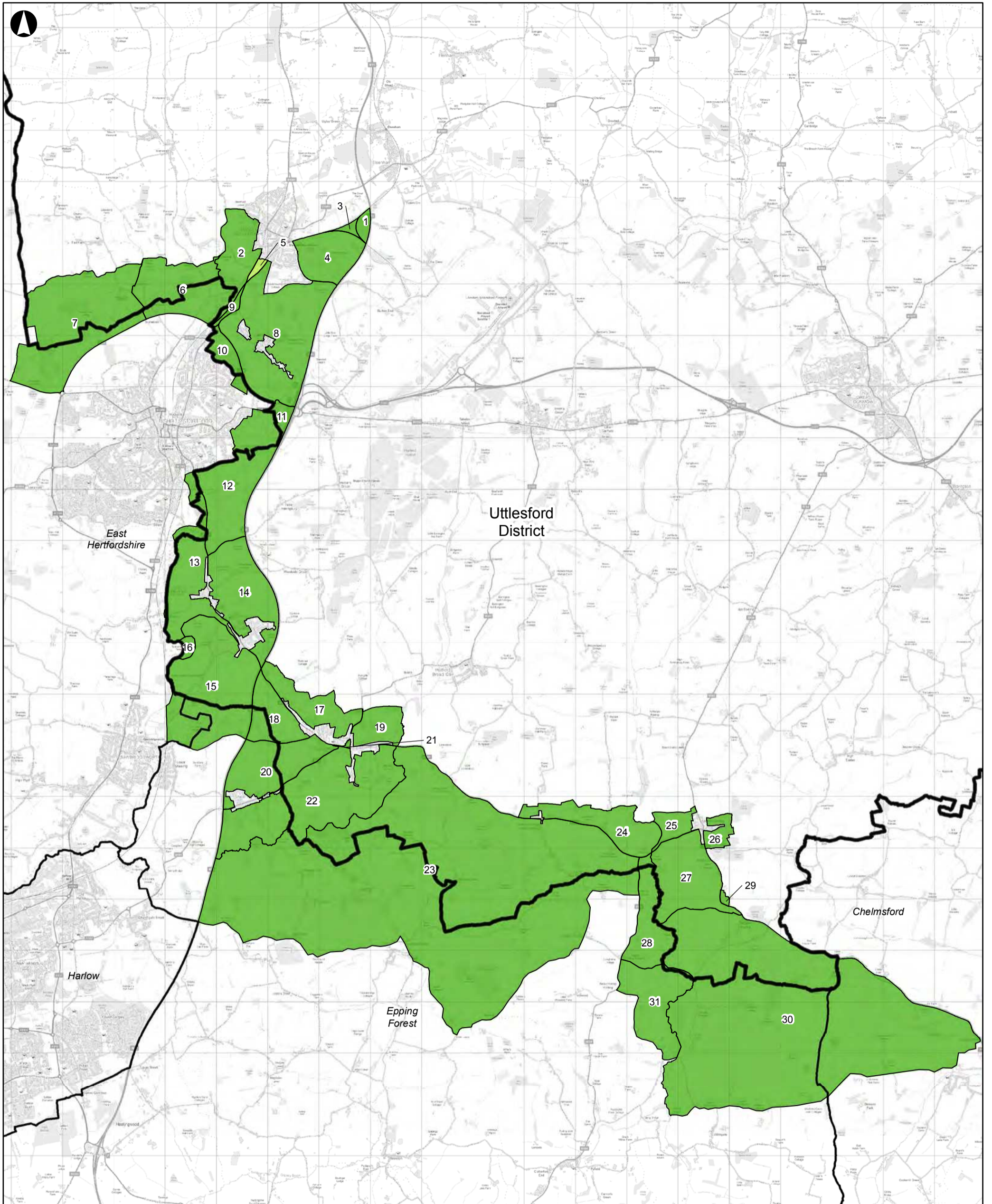
Great Dunmow Town Council has recently consulted on a draft Neighbourhood Plan for the town. The District Council is working with the Town Council to ensure that the Local Plan and the Town Plan are complementary. However it is necessary to ensure that all the options are properly considered, and any relevant evidence will be shared with the Town Council to enable them to ensure that the Town Plan is robust. Figure 4 shows six Areas of Search around the town.

Figure 4 Areas of Search for Great Dunmow





## Appendix B – Greenbelt Review Extract



**Legend**

- Overall Scores**
- Strong
  - Moderate
  - Weak
- General Areas
  - Neighbouring District Boundary
  - Uttlesford District Boundary

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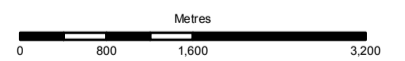
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| P1    | 08-02-16 | MM | ML   | AB   |
| Issue | Date     | By | Chkd | Appd |

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**Uttlesford District Council**

Job Title  
**Uttlesford Green Belt Boundary Review**



**Map 5.4 Overall Assessment Scores**

Scale at A3

**1:70,000**

Job No  
**000000-00**

Drawing Status  
**Draft**

Drawing No  
**5.4**

Issue  
**P1**



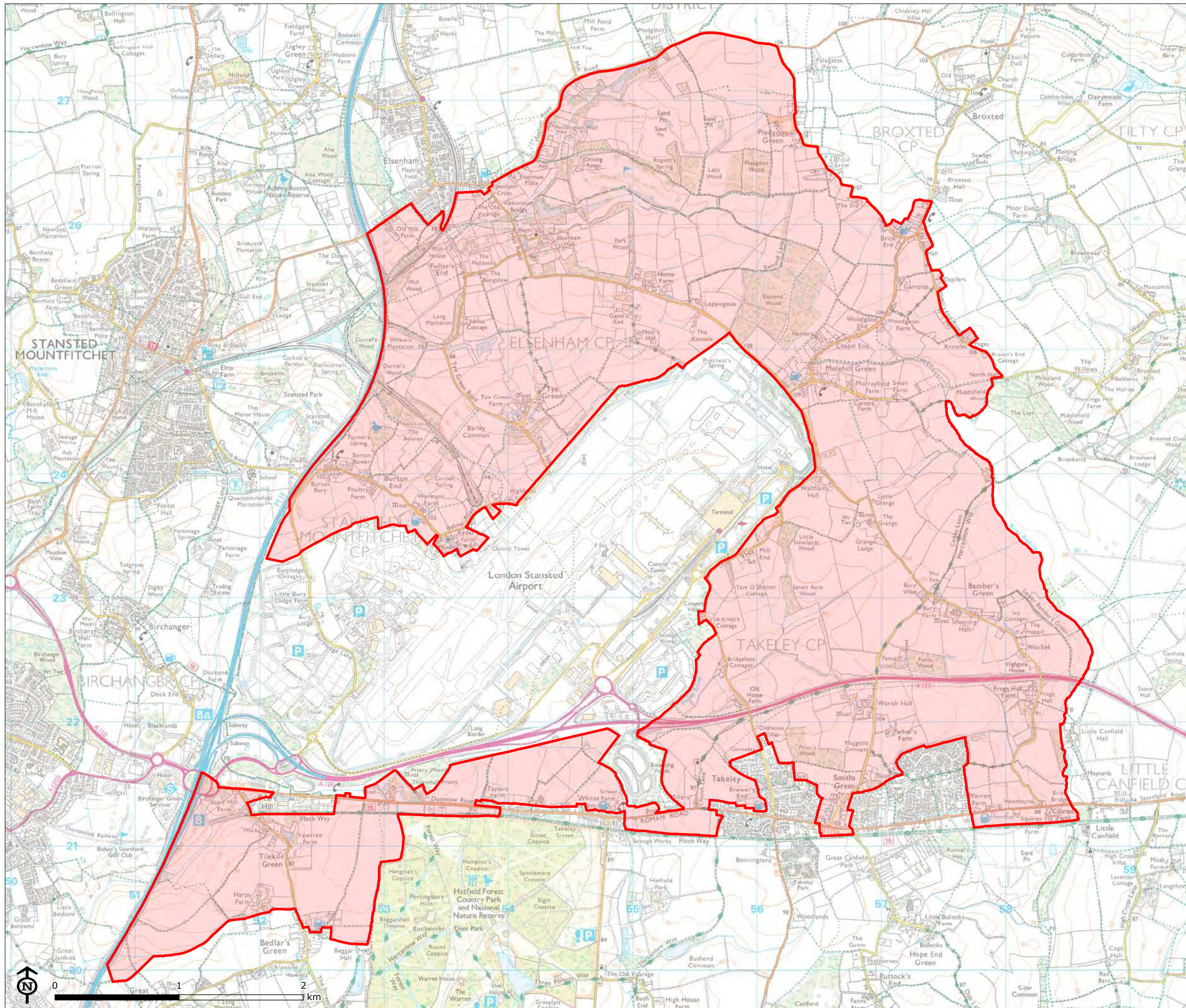
## Appendix C – Uttlesford CPZ

# Uttlesford DC - Countryside Protection Zone Review

Figure 2.1

## Countryside Protection Zone Extent

 Countryside Protection Zone



Map Scale @ A3: 1:30,000





## Appendix D – DfT Journey Time Statistics Note





## 1. Introduction

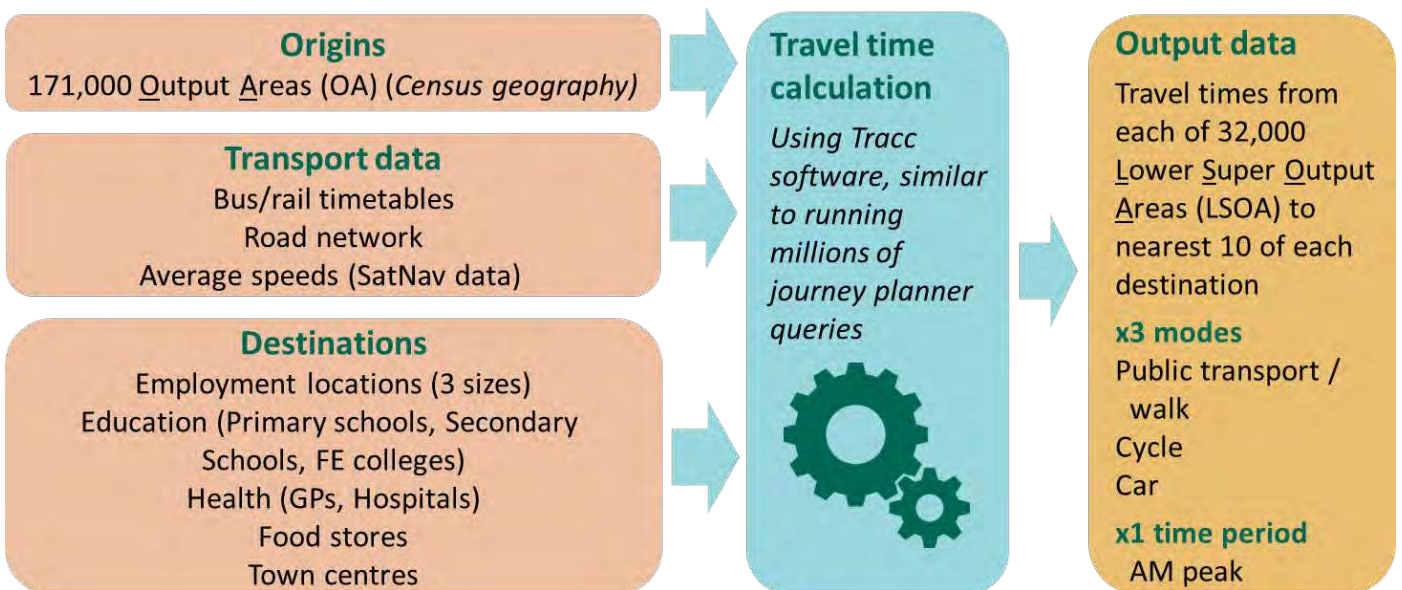
This document provides guidance on the [Journey Time Statistics: Access to Services](#). These annual statistics were first published in December 2015 for the year 2014 and are a development of the earlier Accessibility Statistics published for 2007 to 2013.

## 2. Overview

The Journey Time Statistics collection produced by DfT consists of theoretical journey times calculated by modelling journeys between known sets of origins and destinations, using information on the road network, traffic speeds and public transport timetables.

The Access to Services releases in particular apply this methodology to origins consisting of residential neighbourhoods and destinations consisting of centres of employment and a range of key local services. Journey times are calculated for 3 modes of transport, as shown in the outline below. These journey times are then used to generate further indicators, as described in the Outputs section.

### Outline of Access to Services calculation process



### These Notes and Definitions include:

1. Introduction
  2. Overview
  3. Input Data Sources
  4. Calculation Methodology
  5. Outputs
  6. Strengths and weaknesses of the data
  7. Uses of the roadside survey data
- Annex A Data Sources

The Access to Services calculation process and the coverage of the data set are very similar to those of the Accessibility Statistics from which they were developed. However, the calculation algorithm and a number of other features of the design are different, so the results are not directly comparable. The main changes for 2014 are highlighted in text boxes like this:

### New for 2014

- Summary of new feature

The statistics are designed to represent as far as possible the situation in October of the year to which they relate. The origins, destinations and public transport timetables used are as far as possible for this date. The traffic data are averages for the preceding 12 months up to and including August. The road networks are those for the previous spring, i.e. those current at the start of the traffic data year.

### 3. Input Data Sources

This section sets out the processing that is done on the input data: the origin points, the destination points, and the modes of travel. Further information on the data sources for the input data can be found in Annex A of this note.

#### Origins

The origins used for all Access to Services calculations are the 171,372 English Output Areas (OA) as specified in the 2011 Census geography<sup>1</sup>. To provide the actual journey start point in each OA, the population weighted centroid of the OA was shifted to the nearest node (i.e. junction) on the road network. This was to avoid biasing the journey time results where the centroid of the OA was a long way from a road. In fact it is rare for an OA centroid to be more than about 100 metres from a road – only a tiny handful of OA in remote areas have centroids as much as 1km from a road. *(The points were shifted onto the nearest road node rather than the nearest point on a road in order to reduce issues arising from normalising the road network – for the relevance of this see the assumptions table in Calculation Methodology section below).*

### New for 2014

- Adopted 2011 geography for OAs.
- Introduced constraining of centroids to road nodes

#### Destinations

The destinations used consist of three different sizes of employment centre and the locations of seven other types of key local service. For each of these a nationally consistent data set has been identified or derived – further information on these is provided in Annex A to this note.

The employment destinations are based on the 2011 Lower Super Output Area (LSOA) geography. Three sets of employment destinations are defined, based on LSOAs containing between 100 and 499 jobs, between 500 and 4,999 jobs, and at least 5000 jobs.

---

<sup>1</sup> Available at <http://www.ons.gov.uk/ons/guide-method/geography/products/census/spatial/centroids/index.html>.

## Journey Time Statistics: Access to Services notes and definitions

Each destination is located by a 6-figure National Grid reference. For the employment destinations this is taken to be the population weighted centroid of the LSOA.

| Destination                | Number of locations in 2014 |
|----------------------------|-----------------------------|
| Employment centre (small)  | 16,465                      |
| Employment centre (medium) | 9,235                       |
| Employment centre (large)  | 645                         |
| Primary school             | 16,463                      |
| Secondary school           | 3,365                       |
| Further Education          | 2,624                       |
| GP                         | 9,257                       |
| Hospital                   | 296                         |
| Food store                 | 19,549                      |
| Town centre                | 1,211                       |

The data sources for GP surgeries and hospitals were reviewed and replaced for 2014. In both cases commercially obtained data were replaced by open data sources, which can be shared more easily.

### New for 2014

- New GP destination data source
- New hospital destination data and selection criteria

### New GP destination data

The GP surgery destinations used for 2014 are based on the list of practices maintained by the Organisational Data Service of the Health & Social Care Information Centre, and published at <http://systems.hscic.gov.uk/data/ods/datadownloads>. This was supplemented with information on branch surgeries from the same source. Grid references were derived from the postcode using the ONS Postcode Address File. Practices with identical postcodes were taken to be duplicates or co-located, and all additional records after the first were removed.

### New hospital destination data

The starting point was the Care Quality Commission's list of 'active locations' dataset, which is thought to be the most up to date freely available source of data on individual NHS and social care 'sites' or hospitals. This list shows all organisations that are registered with the CQC. However, this is a very wide ranging dataset and it is not limited to large hospitals, so criteria were developed in consultation with the Department of Health to reduce the list down in as systematic a manner as possible, as follows:

- Remove Care home records
- Remove non-NHS providers
- Remove sites not associated with acute providers
- Remove any remaining sites that are associated with Specialist Trusts (usually single specialty Trusts or Sites).
- Remove records where it is evident from the name that the record is not a hospital (e.g. headquarters, specialist units)
- Inspect individual records to remove further examples of the cases described above, and duplicates.

This gave a final list of 296 hospitals run by Acute (non-specialist) Trusts. As well as covering all general hospitals this will still include some with a largely or entirely community or rehabilitation role, where these happen to be managed by an Acute Trust. It was considered on balance better to leave these in the list, rather than risk adding further subjectivity to the selection. While not perfect, it is considered that the resulting list is a significant improvement on that used previously, and that the approach should provide a more consistent basis for maintaining the list in future years. The list is significantly shorter than that used previously (around 500 sites), therefore will result in longer journey times on average.

### Transport Network Data

Travellers moved between their original and their destination via one or more of the following transport networks, depending on the mode of transport being modelled. For all modes, travellers will probably also need to walk between their origin / destination and the transport network. For some short journeys, it may be quicker for travellers to walk directly to their destination, rather than using public transport at all – this is why public transport / walking results are modelled as a combined mode. More information on the network data sources is given in Annex A, and information on the modelling assumptions used is given in the Calculation Methods section.

#### Public transport

National public transport timetable data are publically available. Data for bus, local coach and other local transport services (e.g. light rail, metro, ferry) are captured in the Traveline National Data Set (TNDS), rail timetable data are published by ATOC, and national coach services in the National Coach Data Set (NCDS).

Data for the second week of October 2014 were used in the analysis, since this provides a fairly typical week, unaffected by major national holidays, school holidays or other seasonal effects.

#### Walking

The walking network is represented by the road and urban path elements of the Integrated Transport Network produced by the Ordnance Survey.

#### Cycle

The cycling network is represented by the road network including cycle paths and bridleways from the Integrated Transport Network. Cycle journeys are also allowed to use footpaths at walking pace.

#### Car

The car network is represented by the road component of the Integrated Transport Network.

#### Car traffic speeds

Data on actual vehicle speeds on each road network link (generally the stretch of road between 2 nodes, or junctions) obtained from Trafficmaster SatNav devices are used to estimate car speeds. These data are used to calculate annual average traffic speeds on each link of the road network (by direction if the link is bi-directional). These are used as the link speeds for cars in the modelling. Where the Trafficmaster sample for an individual link is too small, national averages of the same data for the particular road type are used instead. This is an innovation for 2014 – previously where the sample was too small, the model reverted to default assumptions for car speed based on road type which were much higher than the Trafficmaster averages, resulting in some inconsistency in the model.

### New for 2014

- More consistent default car speeds introduced for roads with little traffic

## 4. Journey Time Calculation

The journey time calculations are carried out using a commercially available software package called TRACC, owned by Basemap.

TRACC is a desktop application that uses public transport and highways data to create journey times from origins to destinations. It uses timetable information showing both arrival and departure times at stops from public transport services against a specific time/day period. Highways information from an underlying road network is used to fill the gaps between public transport services by creating a linear network that connects the origins, destinations and stops together to give a fully routable network of nodes and lines which is saved into memory as a graph network.

This graph has various constraints attached such as travel distance, interchange penalties and stop limitations. The TRACC software then queries the graph with origin and destination co-ordinates and uses the Dijkstra shortest path algorithm to route between these points.

For a public transport journey, the journey time produced then includes the walk from the origin to the road, from the road to the public transport stops, any interchange of public transport using the road and then from the final stop to the destination via the road, and finally from the nearest point on the road network to the destination. The journey assumes arrival at the first stop 1 minute before the initial departure, with any subsequent interchange waiting times included as part of the final journey time.

Car cycle or walk only journeys are similar except that once the road network is reached the journey proceeds link by link along the road network at speeds governed by data held in the model, which are specific to the mode, the road type, and in some cases the individual road link.

### New for 2014

- Adopted TRACC software for journey time calculation. Previously used a contractor running their own model. The previous model was conceptually very similar, but was in some respects optimised to run in quite a different way, so results from the two are not exactly comparable.

## Journey Time Statistics: Access to Services notes and definitions

The principal parameters and assumptions used in the calculations are summarised in the following table:

| <b>Access to Services 2014 – Model Parameters and Assumptions</b>   |                      |
|---|----------------------|
| <b>General parameters</b>   | <b>Assumption</b>    |
| Maximum journey time  | 2 hours              |
| Maximum journey distance  | 100km                |
| <b>Walking</b>  |                      |
| <i>These apply to both:</i>   |                      |
| <ul style="list-style-type: none"> <li>• walking between origin / destination and the transport networks at both ends of a journey by any mode;</li> <li>• walk only journeys as part of the public transport / walk mode</li> </ul>  |                      |
| Maximum straight line distance between origin / destination and road network ( <i>Algorithm will always use nearest point on network. For cycle or car modes, travel by cycle or car begins from this point. For PT/walk, traveller walks along road network to the most suitable public transport stop, or direct to the destination if this is quicker.</i> ) | 2km                  |
| Walking speed on road/path network  | 4.8kmph              |
| Walking speed off road/path network   | 4kmph                |
| <b>Public transport</b>   |                      |
| Interval within which door-to-door journey must be completed (required for timetable selection)   | 7-10 am on a Tuesday |
| Maximum walk distance - this applies to walks from origin to first public transport stop, from last stop to destination, and also walking directly from origin to destination without using public transport at all.  | 3km                  |
| Maximum number of potential first public transport stops considered in routing algorithm (starting with the closest to origin)  | 100                  |
| Allowance for catching first public transport service - added to any journey that involves boarding one or more public transport services   | 5 mins               |
| Public transport speed – this is provided implicitly by the timetable information   | Not applicable       |
| Interchange time (minimum interval allowed between arriving at a stop and catching another service)   | 5 mins               |
| Maximum straight line distance between public transport interchanges  | 500m                 |
| Stop clustering – groups together public transport stops within this distance of one another to speed up processing. The individual timetables for each service are retained.   | 150m                 |
| <b>Cycling</b>  |                      |
| Parking time - added to all cycle journeys  | 5 minutes            |
| Cycling speed (breakdown below)   |                      |
| Motorway  | 0 kmph               |
| Urban Motorway  | 0 kmph               |
| A road  | 16 kmph              |
| B road  | 16 kmph              |
| Minor road  | 16 kmph              |
| Local street  | 16 kmph              |
| Private road – restricted access  | 4.8 kmph             |
| Private road – public access  | 16 kmph              |
| Pedestrian street   | 4.8 kmph             |

## Journey Time Statistics: Access to Services notes and definitions

|  |                                 |
|--|---------------------------------|
| Alley  | 4.8 kmph                        |
| Time at junctions  |                                 |
| Road normalisation – <i>converts each road link to a straight line to speed up processing. The true link length is retained for accurate speed/time calculations, but there could be a small effect on the calculation of shortest distance from the road network to destination points. Effect for origins minimal, due to origins being constrained to road nodes.</i> | Road normalisation is used      |
| <b>Car</b>   |                                 |
| Minimum journey time for a journey that uses a car   | 5 minutes                       |
| Car speed - derived from Trafficmaster data 7-10am during 2013/14 for individual links where there are more than 200 records per year. For other links, annual average Trafficmaster speeds by road type for 2013/14 were used as follows:   | Derived from Trafficmaster data |
| Motorway   | 79.5 kmph                       |
| Urban Motorway   | 79.5 kmph                       |
| A road   | 42.7 kmph                       |
| B road   | 41.6 kmph                       |
| Minor road   | 36.8 kmph                       |
| Local street   | 19.2 kmph                       |
| Private road – restricted access   | 17.0 kmph                       |
| Private road – public access   | 14.8 kmph                       |
| Pedestrian street  | 0 kmph                          |
| Alley  | 0 kmph                          |
| Time at junctions  | None                            |
| Road normalisation – as for cycling  |                                 |

### New for 2014

- The structure of the TRACC model is rather different to the previous one, although designed to achieve a similar end result
- The 5 minute additions for car, cycle and public transport journeys. Previously a 5 minute minimum was imposed for car and cycle, and 10 minutes for public transport use, but nothing was added to journeys which were already longer than this
- Default car speeds for 'other links' based on Trafficmaster averages – these are lower than previous assumptions, as mentioned earlier
- Various other detail changes – where possible, parameters have been kept similar

The ten shortest journey times from each Origin (i.e. Output Area) are calculated for each destination type. For the public transport / walking mode these consist of the ten shortest journey times by either walking or public transport, after applying a 5 minute penalty for any journeys using public transport (to represent travellers arriving slightly early at the first stop).

The journey times are representative of the 'morning peak'. This is made explicit for public transport / walking by requiring the journey to be completed between 7 and 10am, and for car by using average traffic speeds for 7-10am. For the cycle mode no actual speed data are available - the cycle speeds used are default assumptions, and not based on a particular time of day.

### New for 2014

- The focus on 'am peak' is new. The accessibility statistics used a more complex approach designed to provide a 'representative' journey time across the whole day – the number of calculations required would not be viable using the new calculation method.
- The former public transport frequency measure has been dropped as part of the indicator rationalisation. There is no equivalent in the TRACC-based calculation.
- The former 'composite' public transport / cycling mode, which was based on fixed formula of 31/34 times the PT/walk time plus 3/34 times the cycle time, has been dropped as part of the indicator rationalisation.

## 5. Outputs

The journey time results are used to create the following indicators for publication:

| Indicator              | Description   |
|------------------------|---|
| Minimum journey time   | the shortest of the ten journey time results  |
| Destination indicators | 4 measures, the percentages of service users within the given geographical area who can access at least one service location within 15, 30, 45 and 60 minutes |
| Origin indicators      | 4 measures, the numbers of destinations (up to the maximum of 10) that can be reached from a given origin within 15, 30, 45 and 60 minutes                    |

### New for 2014

- The 4 journey time thresholds above have been standardised across all destinations – previously there were just 2 thresholds per destination, but these varied according to the destination.
- The former 'continuous' destination indicators have been discontinued.

Each of these indicators is calculated for each mode and each destination type, and at a number of geographical scales as follows:

| Output Geographies   |
|--|
| England  |
| Region   |
| Local Authorities<br><i>(Includes London Boroughs, Metropolitan districts, Unitary authorities, Counties and non-Metropolitan districts, also Inner and Outer London and former Metropolitan counties)</i> |
| 2011 Lower layer Super Output Area   |
| 2011 Defra Rural/Urban Classification  |



### New for 2014

- LSOA and rural/urban definitions updated to 2011 geographies

The indicators for each geography are calculated as population weighted averages. In other words, the average minimum journey time for an area, B, is:

$$mjt(B) = \sum_{i=1}^n \frac{mjt(OA_i) \times pop(OA_i)}{pop(B)}$$

where  $mjt(B)$  is the minimum journey time in area B,  $mjt(OA_i)$  is the minimum journey time of the  $i^{th}$  of  $n$  output areas making up area B, and  $pop(B)$  and  $pop(OA_i)$  are the user populations resident in area B and output area  $i$  respectively.

The service user populations used in the above weighting, and in the destination indicators, depend on the destination type, as follows:

| Destination type                      | Service user population basis                    |
|---------------------------------------|--|
| Employment                            | Resident population of working age (16-74 years) |
| Primary school                        | Population aged 5-10                             |
| Secondary school                      | Population aged 11-15                            |
| Further Education                     | Population aged 16-19                            |
| GP, hospital, food store, town centre | Number of households                             |

### New for 2014

- The additional 'at risk user populations' previously included have been dropped as part of the indicator rationalisation

## 6. Strengths and weaknesses of the data

In using the data, the following points should be kept in mind:

- The statistics are based on the calculation of theoretical journey times, they are not based on real journeys
- They are however based on actual public transport times, and average traffic speeds on the road network
- They are compiled on a consistent basis across the country
- Although the statistics are calculated to a high level of geographical detail, some assumptions and simplifications are necessary in the modelling (for example assigning the start point of journeys to a single point in each Output Area, road speeds, interchange times for public transport)
- For particular areas, local authorities and other experts may have more detailed information allowing them to produce more accurate or detailed models of the local situation

## **Journey Time Statistics: Access to Services notes and definitions**

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- Demand responsive services (e.g. bus services which have to be booked) are only included to the extent that they are included, and can be plausibly modelled, in the Traveline National Data Set.
- Since new journey calculation software has been adopted for 2014, along with a significant number of other changes to the methodology, 2014 results are not directly comparable with those for earlier years.

## Journey Time Statistics: Access to Services notes and definitions

### Annex A Data source information for 2014

| Service                                | Data source for the locations of the service  | Data source for users of the service   |
|--|---|--|
| Employment                             | <p><b>Data:</b> No. of jobs available in a LSOA in 2014.</p> <p><b>Source:</b> ONS Business Register Employment Survey</p> <p><b>Further information:</b><br/> <a href="https://www.nomisweb.co.uk/default.asp">https://www.nomisweb.co.uk/default.asp</a></p>  | <p><b>Data:</b> Number of 16-74 year olds in each output area</p> <p><b>Source:</b> ONS 2013 mid-year population estimates</p> <p><b>Further information:</b><br/>                     ONS Mid-year population estimates:<br/> <a href="http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates">http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates</a></p>   |
| Food stores                            | <p><b>Data:</b> Location of grocery/supermarkets or convenience stores in March 2015.</p> <p><b>Source:</b> Retail locations.</p> <p><b>Further information:</b><br/> <a href="http://www.retaillocations.co.uk/">http://www.retaillocations.co.uk/</a></p>   | <p><b>Data:</b> Number of households in each output area.</p> <p><b>Source:</b> 2011 Census + LA updates from DCLG 2013 mid-year household projections.</p> <p><b>Further information:</b> 2011 census:<br/> <a href="http://www.nomisweb.co.uk/census/2011">http://www.nomisweb.co.uk/census/2011</a><br/>                     CLG Mid-year household projections:<br/> <a href="https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections">https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections</a></p> |
| Primary school                         | <p><b>Data:</b> Location of all open primary schools on Sept 2014.</p> <p><b>Source:</b> DfE Edubase</p> <p><b>Further information:</b><br/> <a href="http://www.education.gov.uk/edubase/">http://www.education.gov.uk/edubase/</a></p>  | <p><b>Data:</b> Number of 5-10 year olds in each output area.</p> <p><b>Source:</b> ONS 2013 mid-year population estimates</p> <p><b>Further information:</b> ONS Mid-year population estimates:<br/> <a href="http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates">http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates</a></p>  |
| Secondary school                       | <p><b>Data:</b> Location of all open secondary schools on Sept 2014.</p> <p><b>Source:</b> DfE Edubase</p> <p><b>Further information:</b><br/> <a href="http://www.education.gov.uk/edubase/">http://www.education.gov.uk/edubase/</a></p>  | <p><b>Data:</b> Number of 11-15 year olds in schools in each output area.</p> <p><b>Source:</b> ONS 2013 mid-year population estimates</p> <p><b>Further information:</b> ONS Mid-year population estimates:<br/> <a href="http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates">http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates</a></p>  |
| Further education                      | <p><b>Data:</b> Location of all open further education and sixth form colleges/school sixth form on Sept 2014.</p> <p><b>Source:</b> DfE Edubase</p> <p><b>Further information:</b><br/> <a href="http://www.education.gov.uk/edubase/">http://www.education.gov.uk/edubase/</a></p>  | <p><b>Data:</b> Number of 16-19 year olds in each output area.</p> <p><b>Source:</b> ONS 2013 mid-year population estimates</p> <p><b>Further information:</b> ONS Mid-year population estimates:<br/> <a href="http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates">http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates</a></p>   |
| GP<br>(see also Section 3 above)       | <p><b>Data:</b> Locations of GP surgeries</p> <p><b>Source:</b> Health and Social Care Information Centre EPRACCUR and EBRANCHES datasets</p> <p><b>Further information:</b><br/> <a href="http://systems.hscic.gov.uk/data/ods/datadownloads/gppractice">http://systems.hscic.gov.uk/data/ods/datadownloads/gppractice</a></p>         | <p><b>Data:</b> Number of households in each output area.</p> <p><b>Source:</b> 2011 Census + LA updates from DCLG 2013 mid year household projections.</p> <p><b>Further information:</b> 2011 census:<br/> <a href="http://www.nomisweb.co.uk/census/2011">http://www.nomisweb.co.uk/census/2011</a><br/>                     CLG Mid-year household projections:<br/> <a href="https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections">https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections</a></p> |
| Hospital<br>(see also Section 3 above) | <p><b>Data:</b> Location of hospitals</p> <p><b>Source:</b> Care Quality Commission Directory of places that provide care</p> <p><b>Further information:</b><br/> <a href="http://www.cqc.org.uk/content/how-get-and-re-use-cqc-information-and-data">http://www.cqc.org.uk/content/how-get-and-re-use-cqc-information-and-data</a></p> | <p><b>Data:</b> Number of households in each output area.</p> <p><b>Source:</b> 2011 Census + LA updates from DCLG 2013 mid year household projections.</p> <p><b>Further information:</b> 2011 census:<br/> <a href="http://www.nomisweb.co.uk/census/2011">http://www.nomisweb.co.uk/census/2011</a><br/>                     CLG Mid-year household projections:<br/> <a href="https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections">https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections</a></p> |

## Journey Time Statistics: Access to Services notes and definitions

| Service     | Data source for the locations of the service  | Data source for users of the service   |
|-------------|---|--|
| Town Centre | <p><b>Data:</b> Location of town centres in 2004</p> <p><b>Source:</b> DCLG Town Centre and Retail planning statistics for England and Wales.</p> <p><b>Further information:</b><br/> <a href="http://www.planningstatistics.org.uk/">http://www.planningstatistics.org.uk/</a></p> | <p><b>Data:</b> Number of households in each output area.</p> <p><b>Source:</b> 2011 Census + LA updates from DCLG 2013 mid year household projections.</p> <p><b>Further information:</b> 2011 census:<br/> <a href="http://www.nomisweb.co.uk/census/2011">http://www.nomisweb.co.uk/census/2011</a><br/>           CLG Mid year household projections:<br/> <a href="https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections">https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections</a></p> |

### Data sources for Origin Locations

The OAs used to calculate the 2014 statistics are those based on the 2011 census.

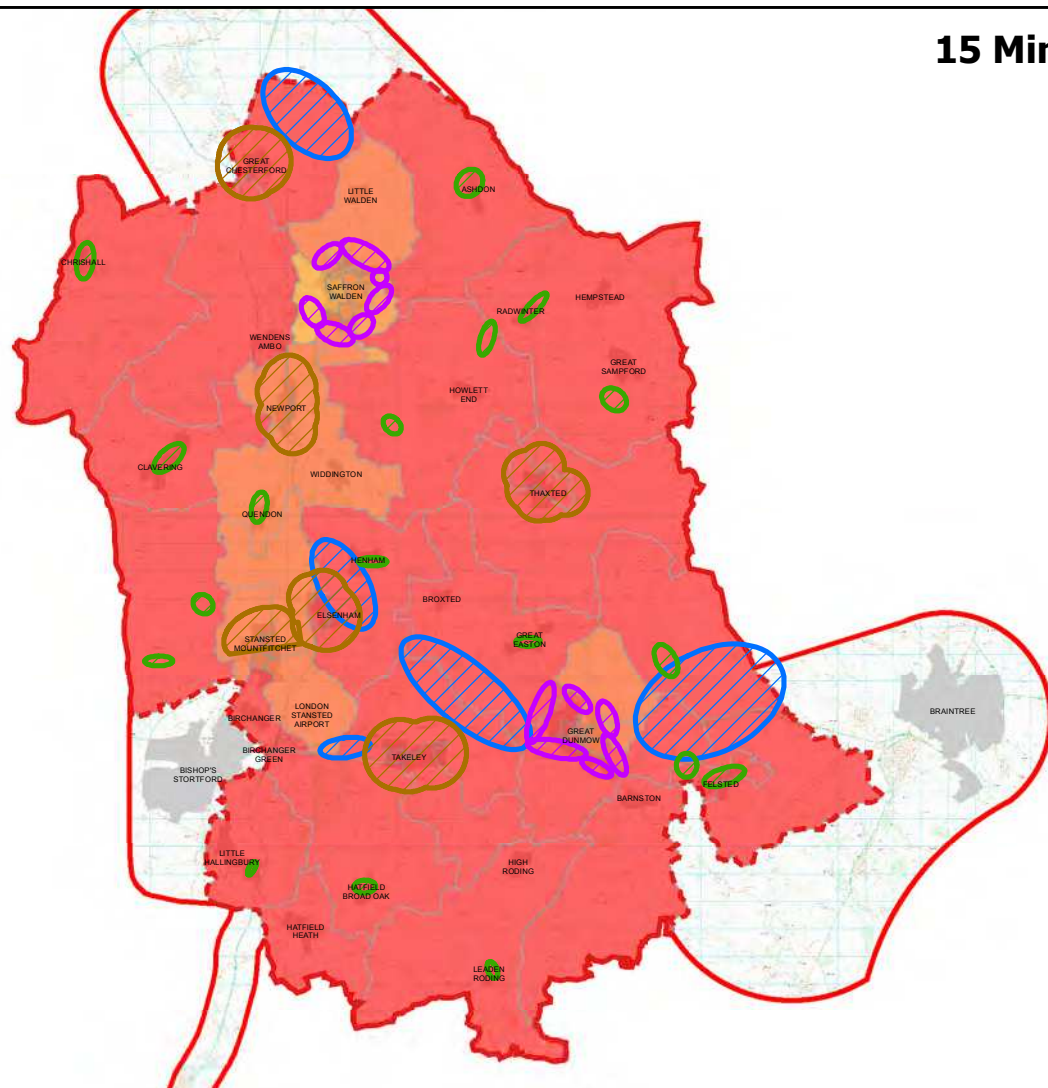
| Service | Data source for the origin points  |
|---------|--|
| All     | <p><b>Data:</b> Population centroid of each Output Area in 2011</p> <p><b>Source:</b> ONS 2011 Census Boundaries</p> <p><b>Further information:</b><br/> <a href="https://geoportal.statistics.gov.uk/geoportal/catalog/main/home_page">https://geoportal.statistics.gov.uk/geoportal/catalog/main/home_page</a></p> |



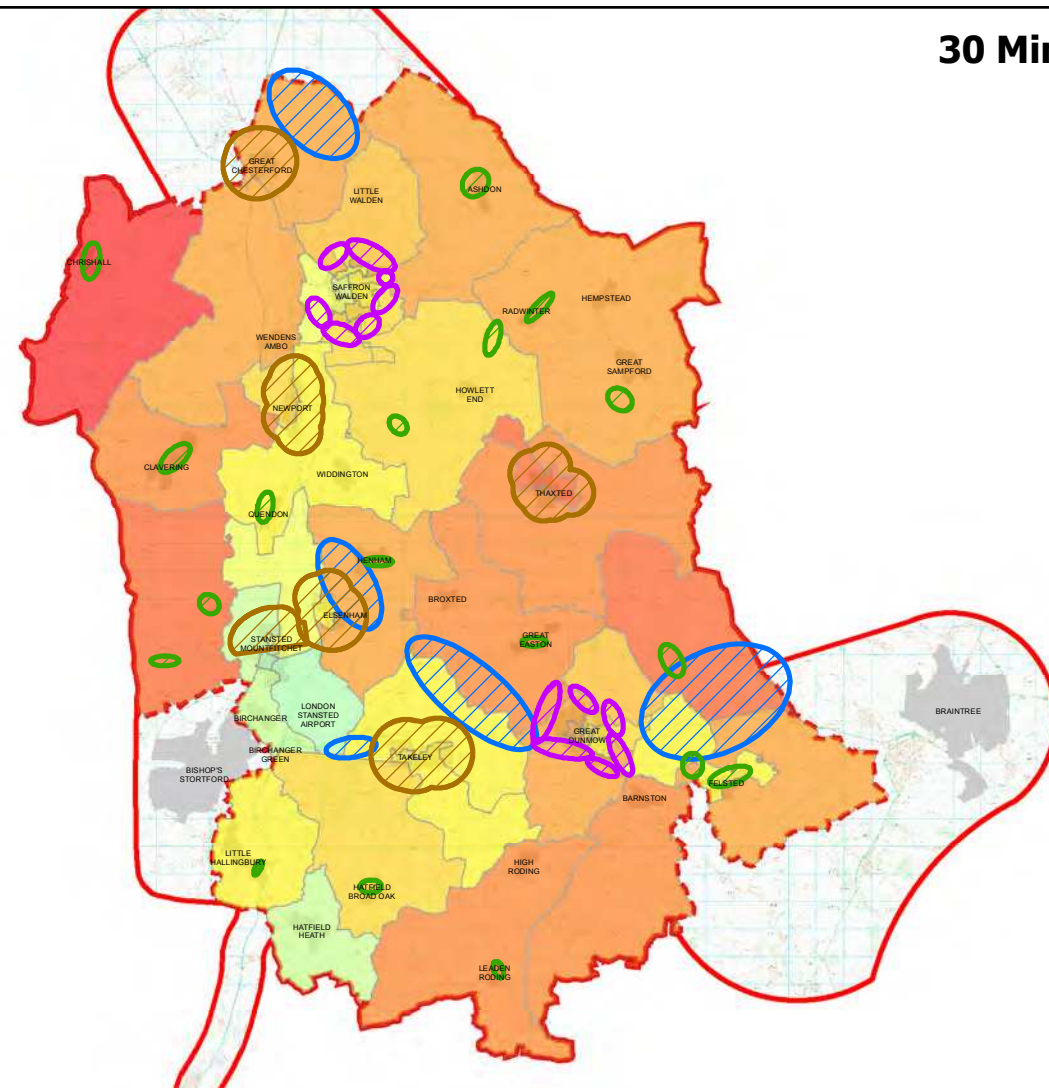
## Appendix E – Plots Depicting Access to all Services



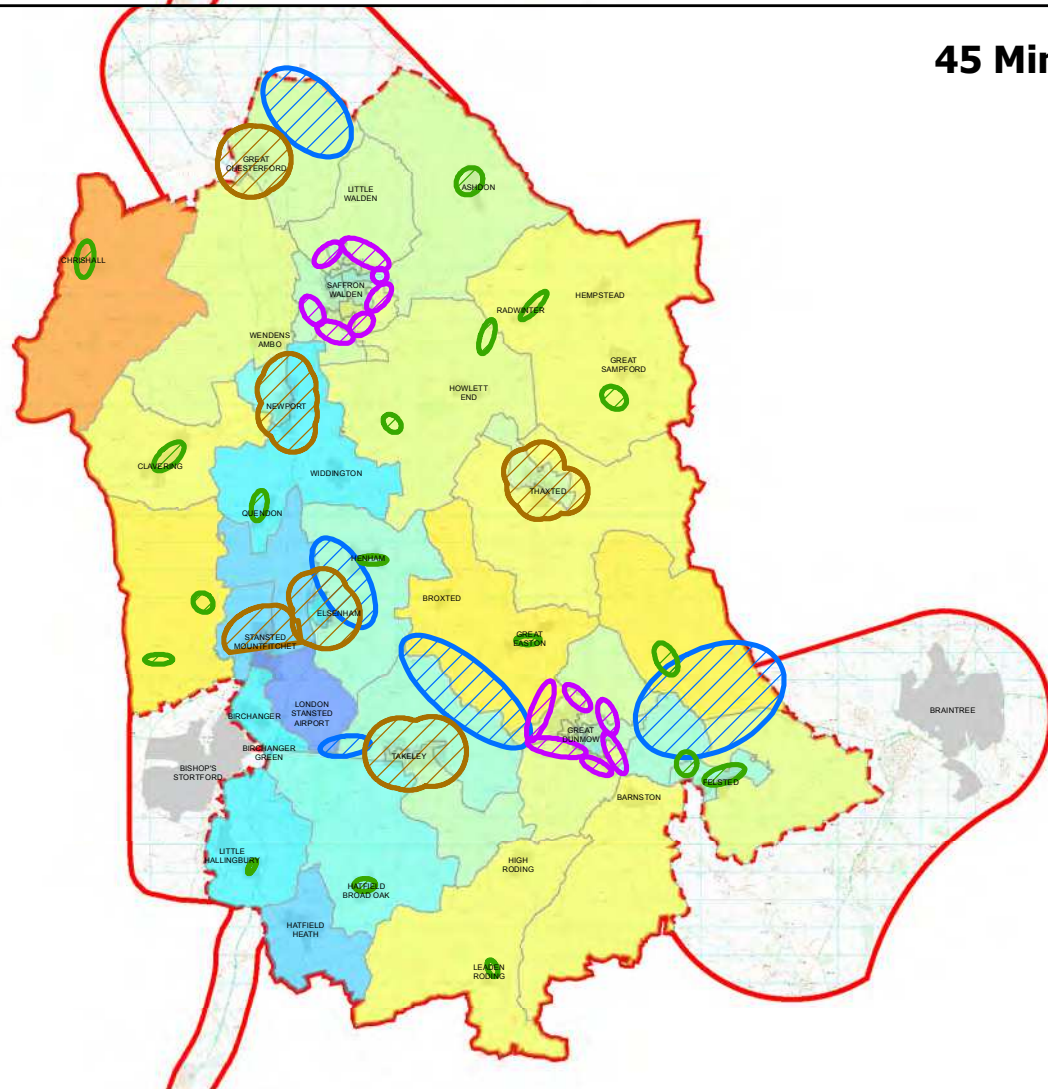
15 Minutes



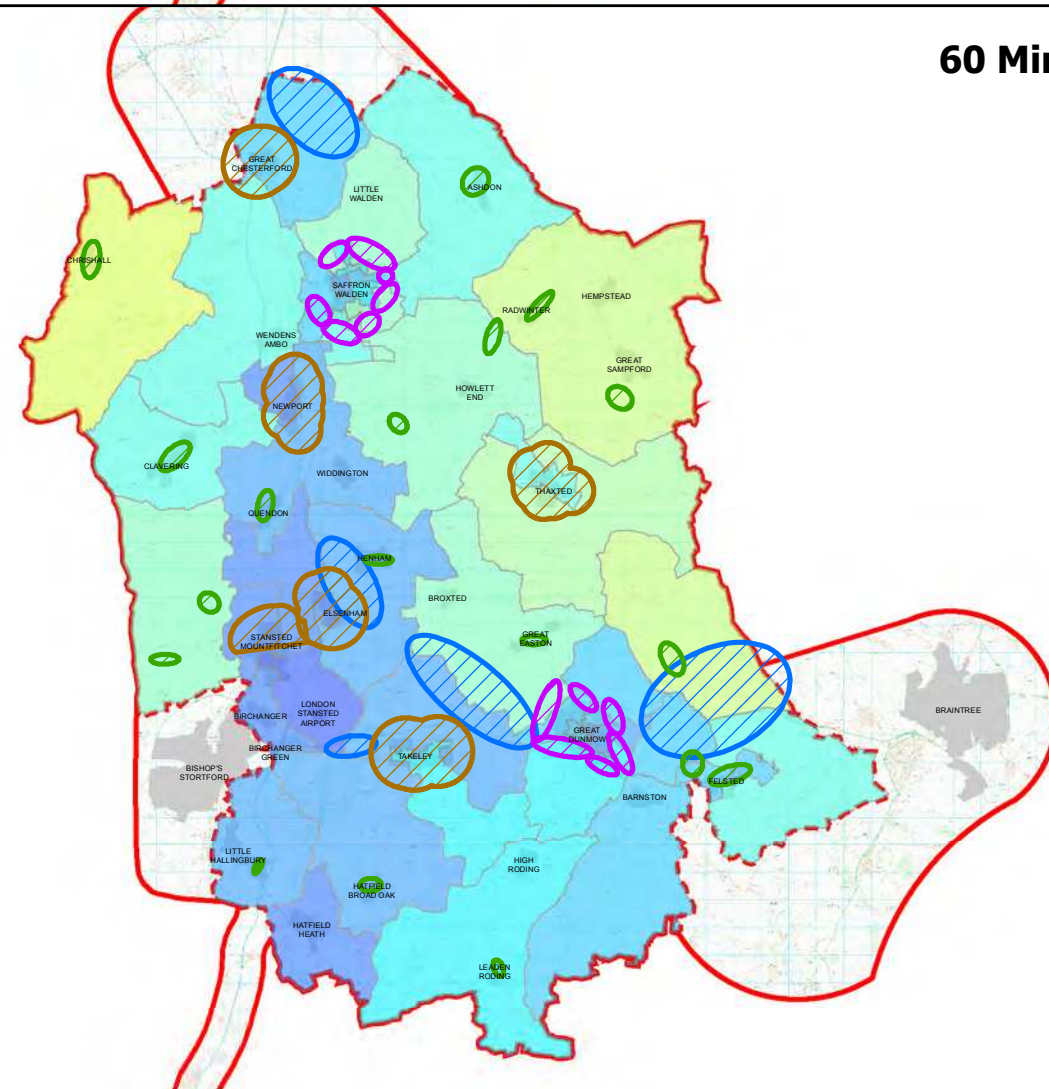
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45 Minutes



60 Minutes



**Legend**

Study Area

Uttlesford District

**Area of Search (AoS)**

Key Villages AoS

New Settlement AoS

Towns AoS

Type A Village AoS

**% of Destinations Accessible**

0% - 5%

6% - 10%

11% - 15%

16% - 20%

21% - 25%

26% - 30%

31% - 35%

36% - 40%

41% - 45%

46% - 50%

51% - 55%

56% - 60%

61% - 65%

66% - 70%

71% - 75%

76% - 80%

81% - 85%

86% - 90%

91% - 95%

96% - 100%

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Project:

District-Wide Transport Study

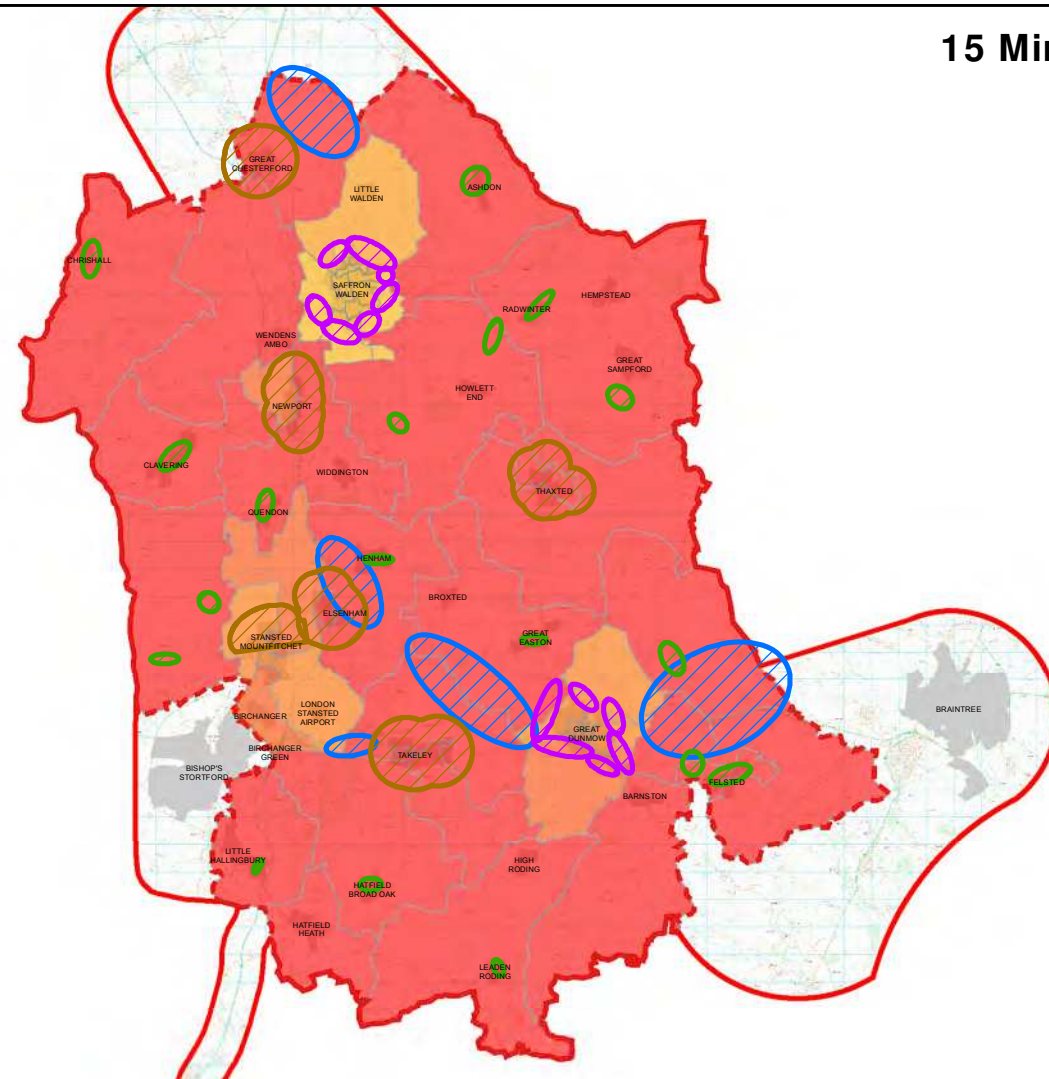
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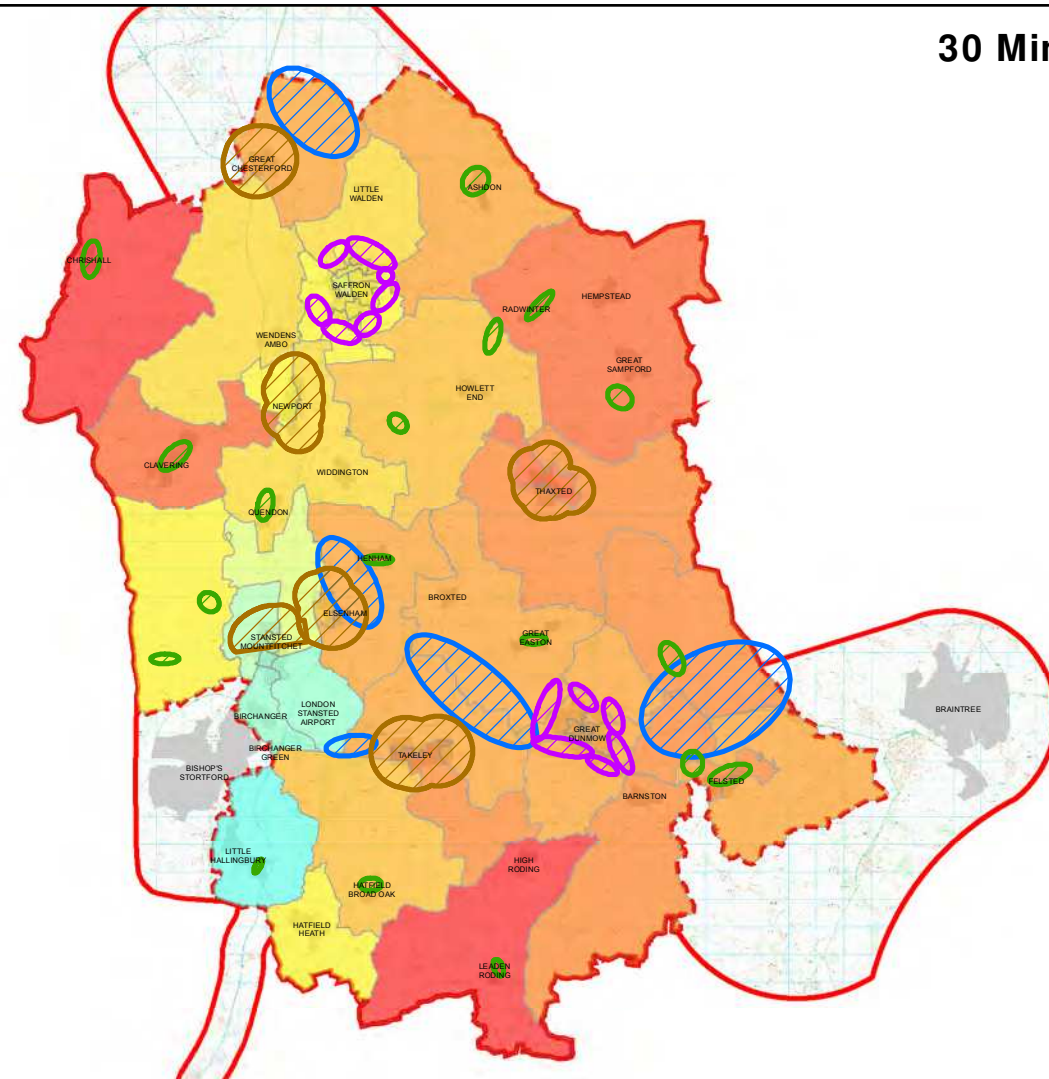
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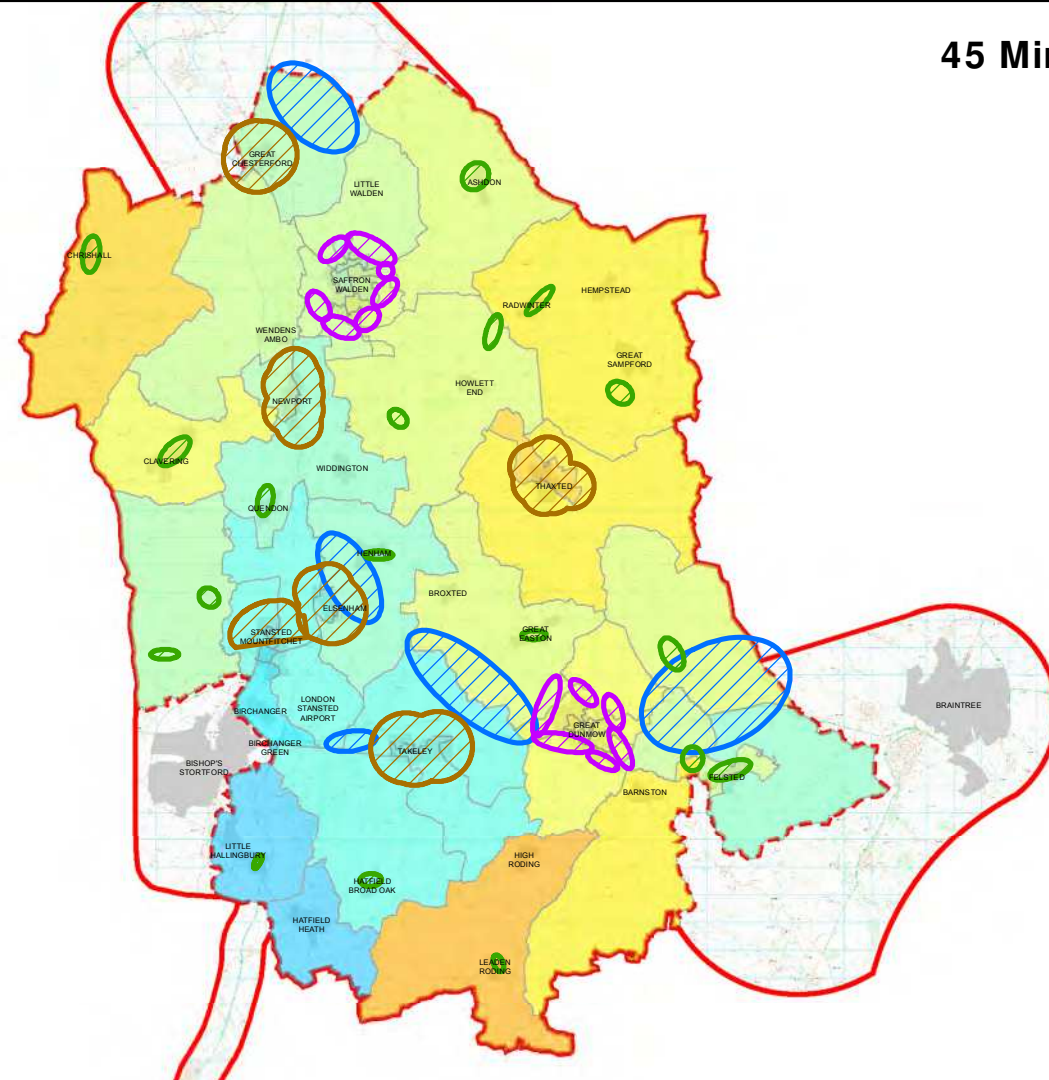
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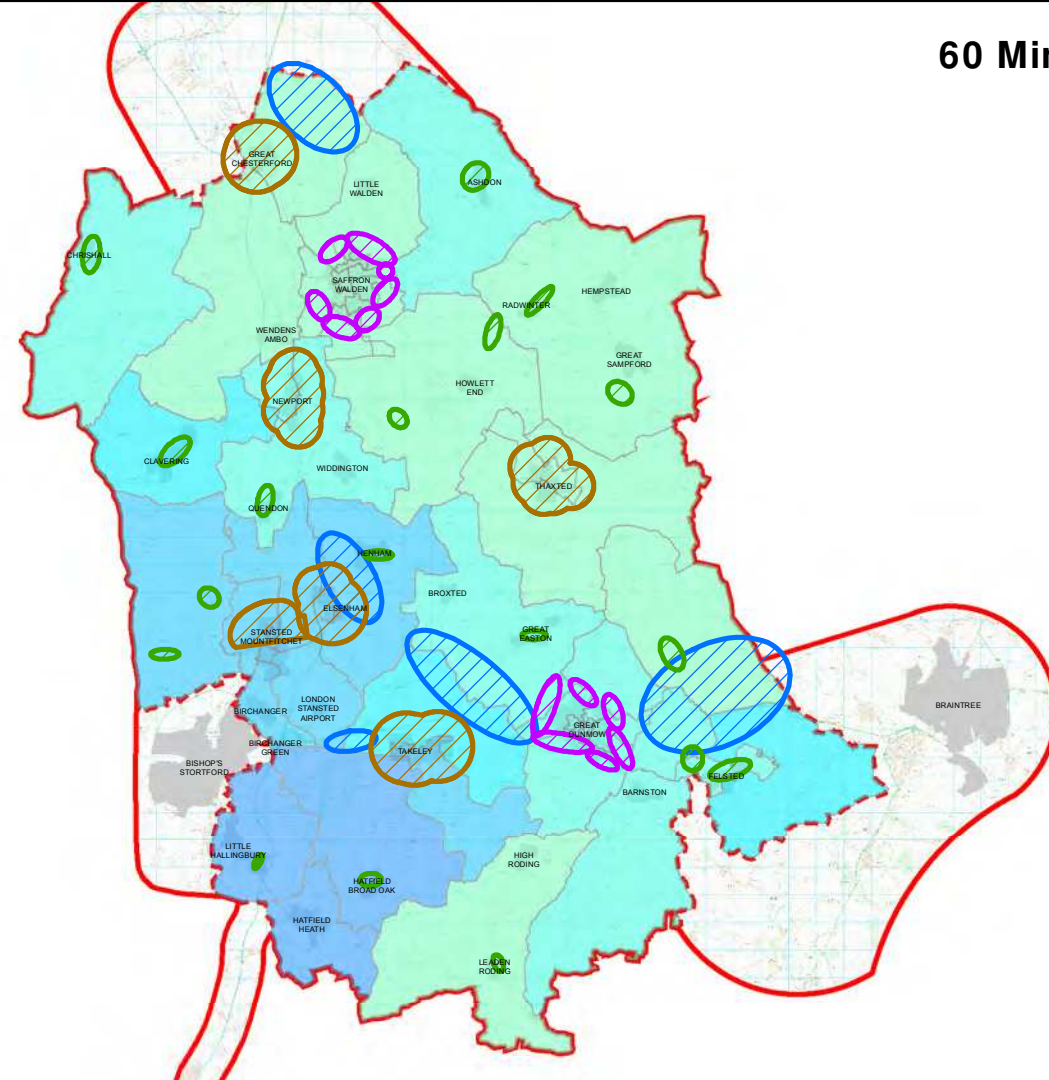
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45 Minutes



60 Minutes



**Legend**

Study Area

Uttlesford District

**Area of Search (AoS)**

Key Villages AoS

New Settlement AoS

Towns AoS

Type A Village AoS

**% of Destinations Accessible**

0% - 5%

6% - 10%

11% - 15%

16% - 20%

21% - 25%

26% - 30%

31% - 35%

36% - 40%

41% - 45%

46% - 50%

51% - 55%

56% - 60%

61% - 65%

66% - 70%

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81% - 85%

86% - 90%

91% - 95%

96% - 100%

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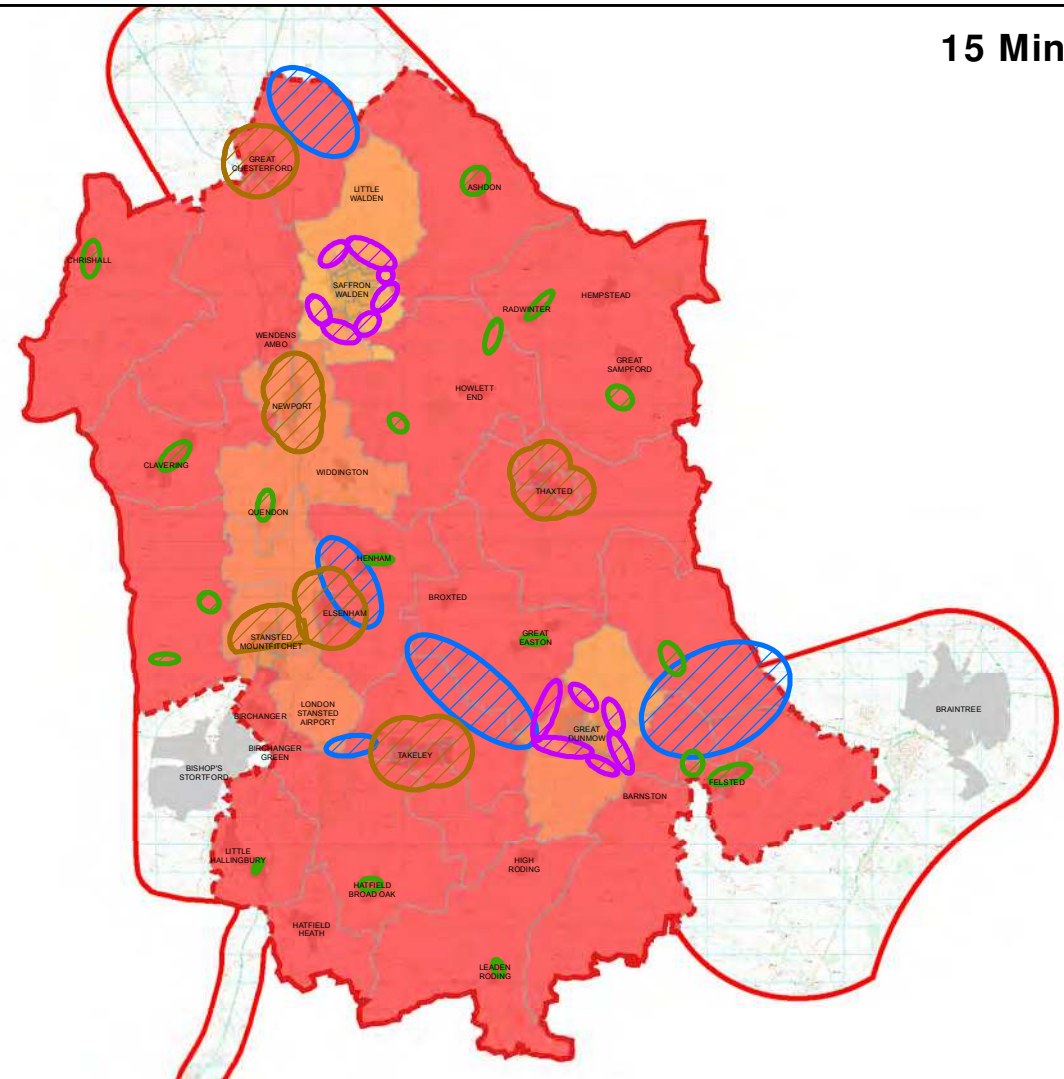
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District-Wide Transport Study

Drawing Title:  
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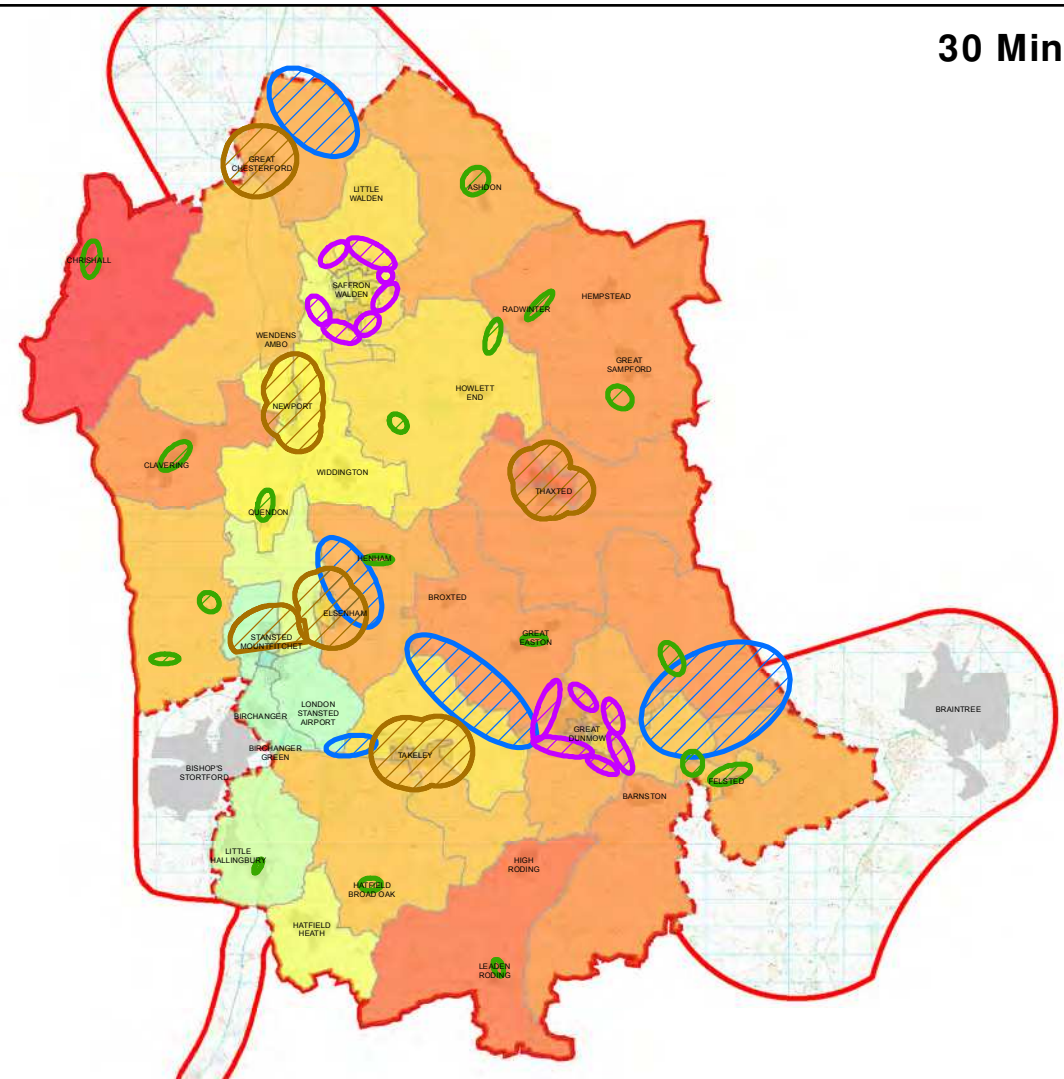
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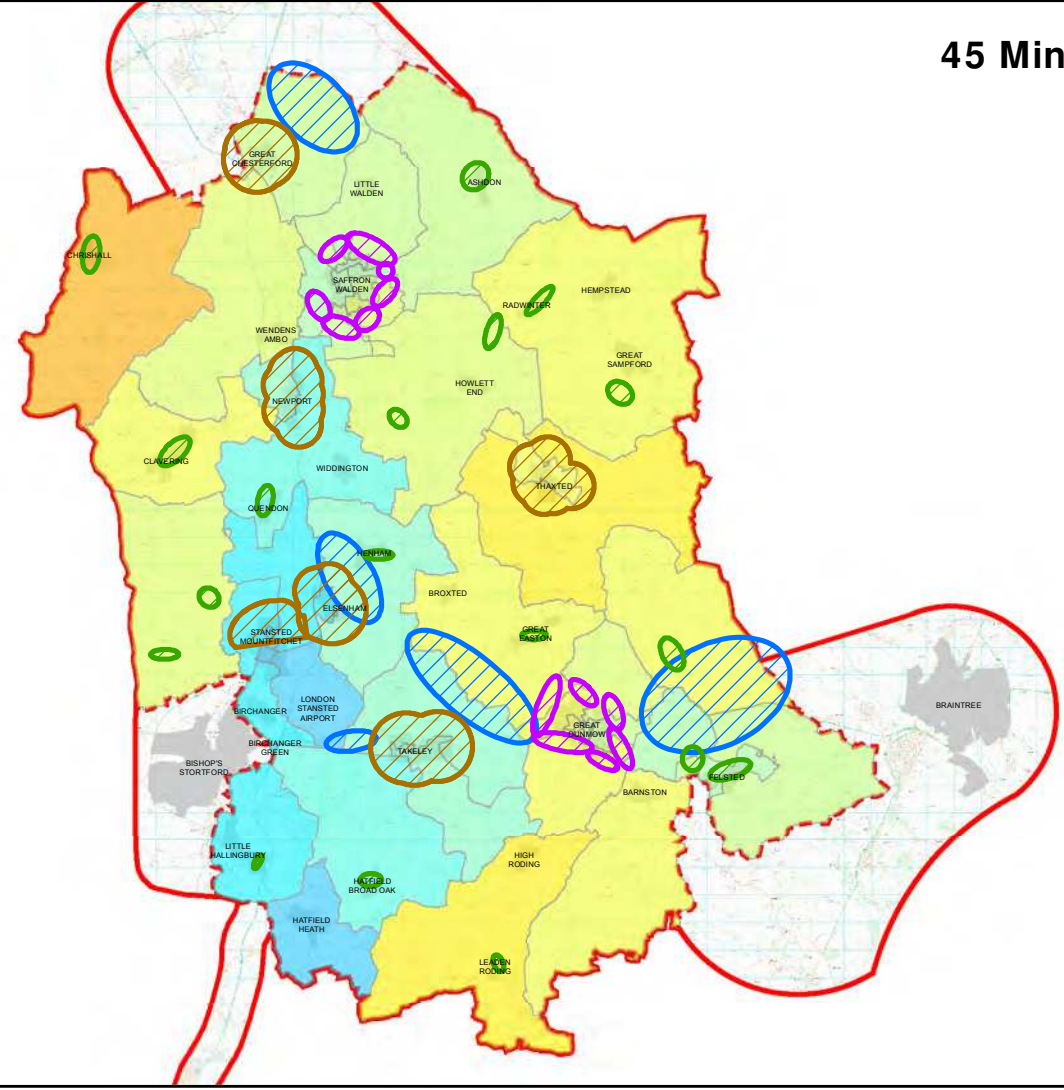
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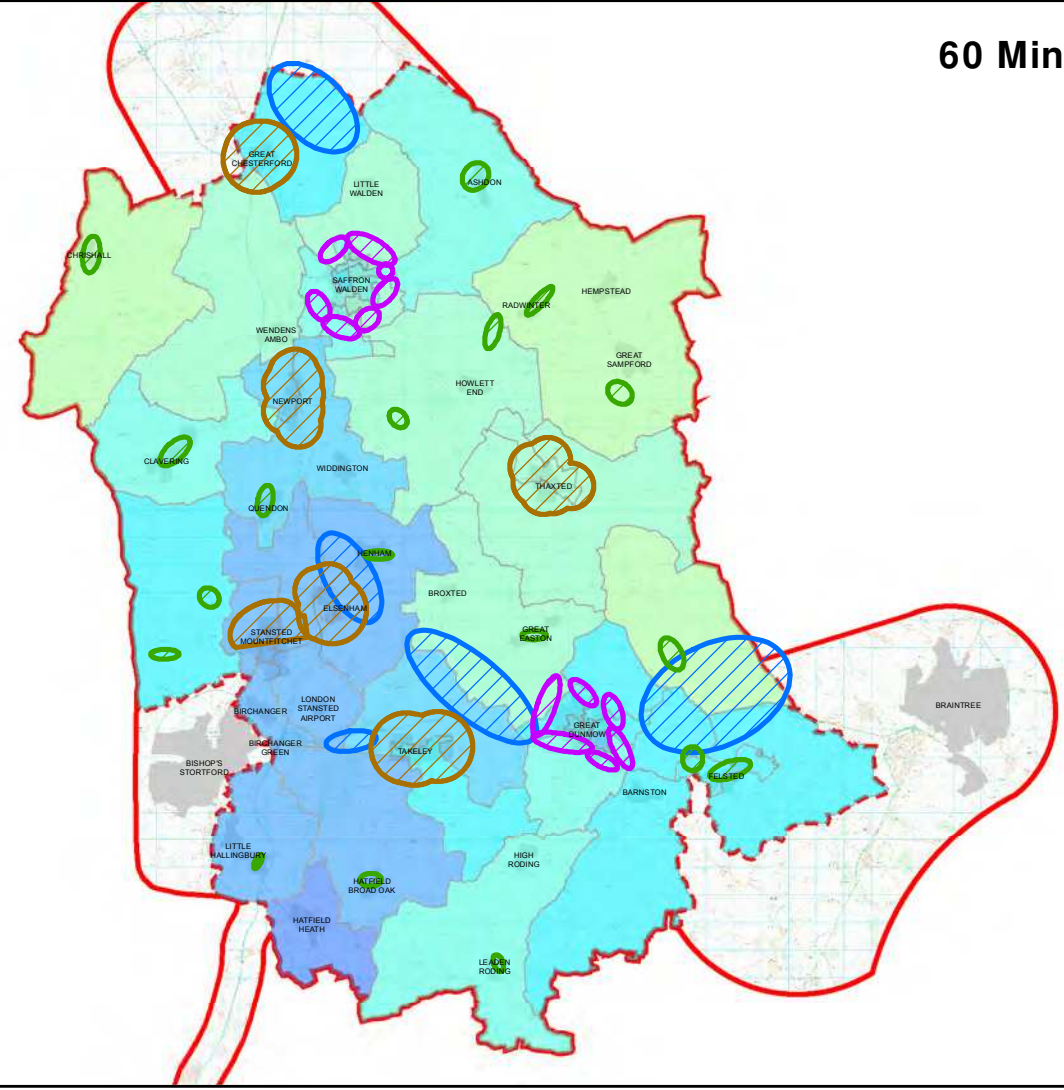
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45 Minutes



60 Minutes



**Legend**

- Study Area
- Uttlesford District
- Area of Search (AoS)**
- Key Villages AoS
- New Settlement AoS
- Towns AoS
- Type A Village AoS
- % of Destinations Accessible**
- 0% - 5%
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- 16% - 20%
- 21% - 25%
- 26% - 30%
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- 51% - 55%
- 56% - 60%
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- 86% - 90%
- 91% - 95%
- 96% - 100%

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Project:  
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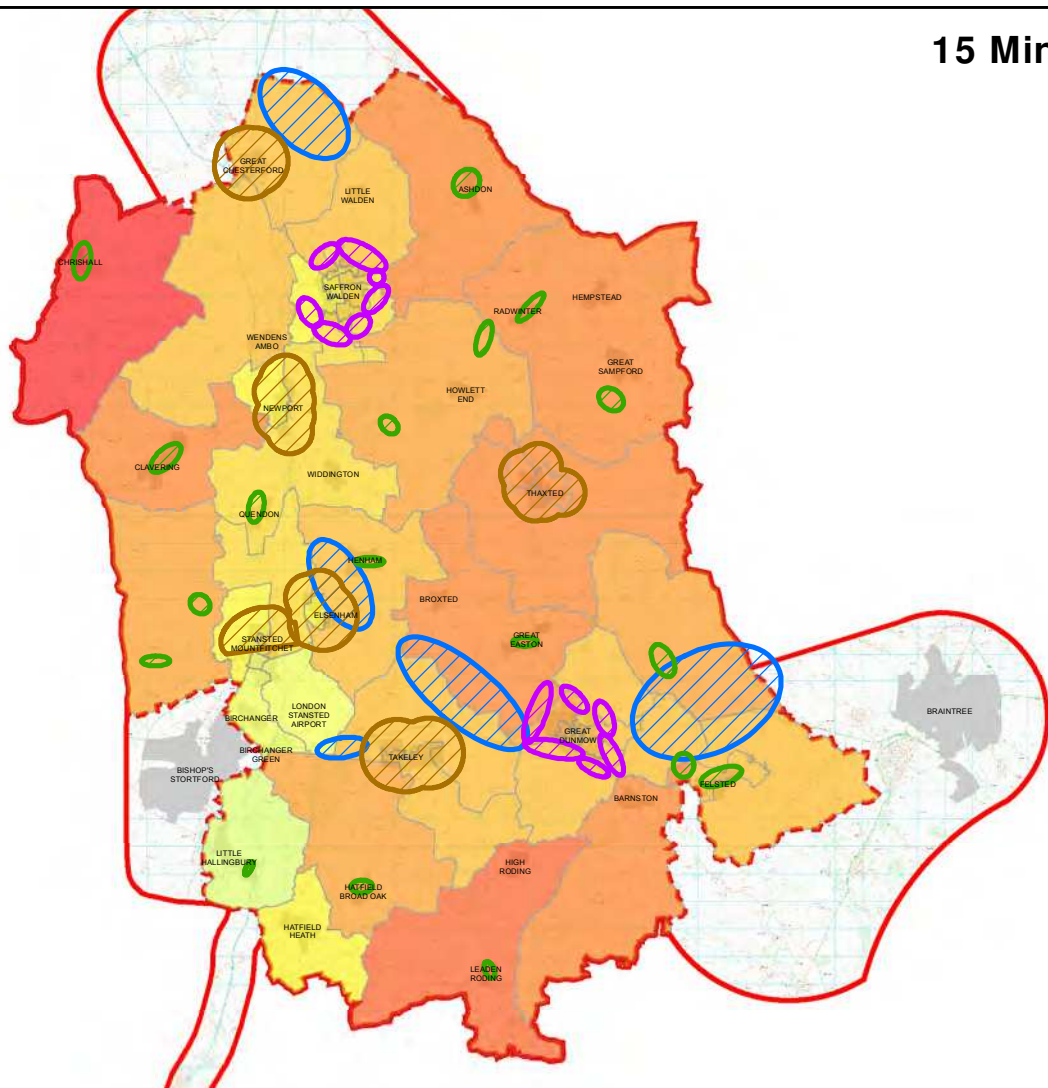
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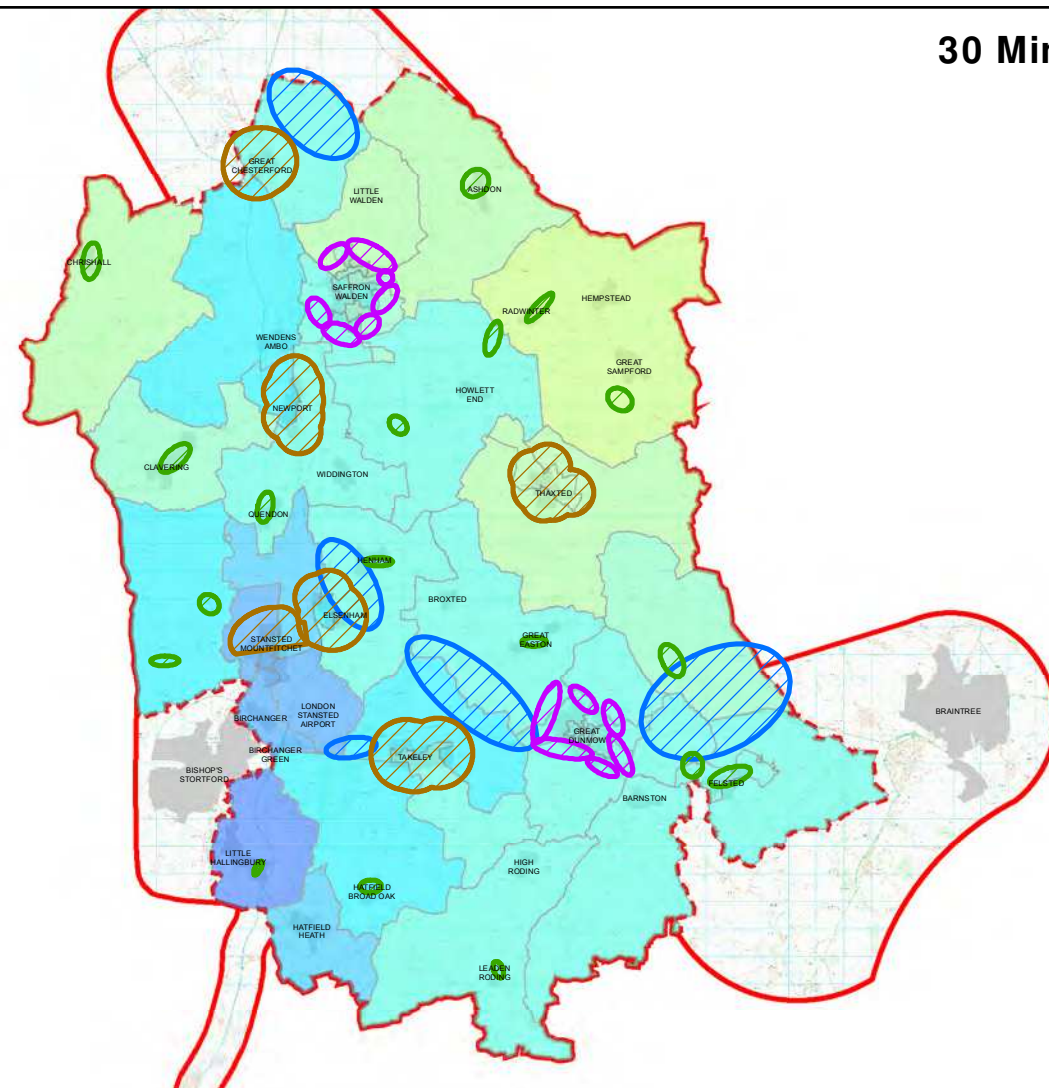




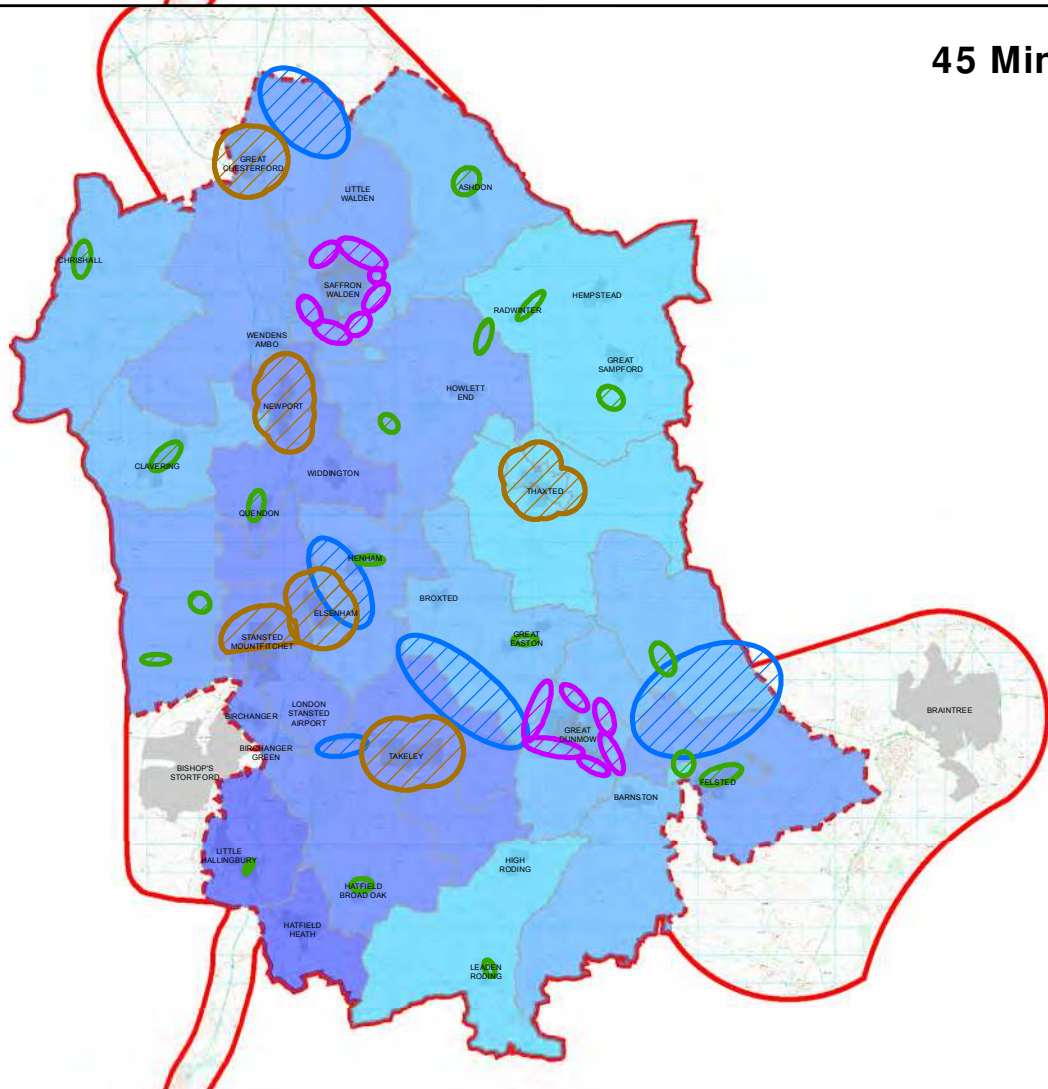
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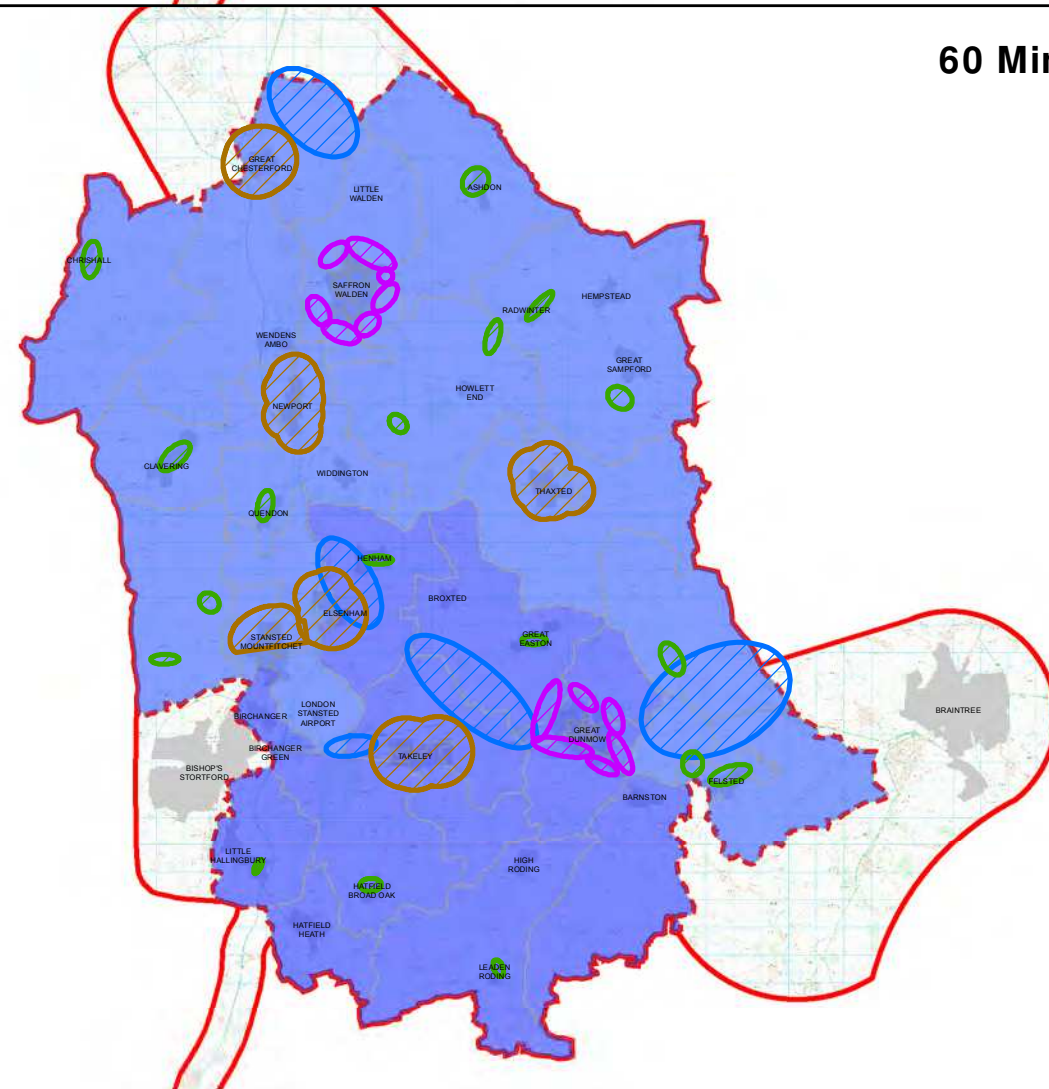
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45 Minutes



60 Minutes



**Legend**

Study Area

Uttlesford District

**Area of Search (AoS)**

Key Villages AoS

New Settlement AoS

Towns AoS

Type A Village AoS

**% of Destinations Accessible**

0% - 5%

6% - 10%

11% - 15%

16% - 20%

21% - 25%

26% - 30%

31% - 35%

36% - 40%

41% - 45%

46% - 50%

51% - 55%

56% - 60%

61% - 65%

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76% - 80%

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91% - 95%

96% - 100%

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Project:  
District-Wide Transport Study

Drawing Title:  
Percentage of Accessibility Destinations Available by Car within Maximum Journey Times

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
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| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 018         | -        |          |          |



## Appendix F – Extracts from the ECC Developers Guide to Infrastructure Contributions 2016



# The Essex County Council Developers' Guide to Infrastructure Contributions

Revised Edition 2016



EPOA  
Essex Planning  
Officers Association



Essex County Council

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# 5

## Contribution Requirements by Service Area

## 5. Contribution Requirements by Service Area

### 5.1 Early years and childcare

#### 5.1.1 Background

High quality local childcare is often on the ‘shopping list’ of young families looking for a new home. Demand for early years and childcare provision in an area is also generated by levels of local employment. People often prefer to arrange care for their pre-school age children close to where they work so that they can respond quickly in an emergency. Developer contributions for early years and childcare are thus sought from both residential and employment led development.

The Childcare Act 2006 places a range of duties on local authorities regarding the provision of sufficient, sustainable and flexible childcare that is responsive to parents’ needs. Local authorities are required to play a lead role in facilitating the childcare market within the broader framework of shaping children’s services in partnership with the private, voluntary and independent sector.

Section 6 of the Act defines ‘sufficient childcare’ as sufficient to meet the requirements of parents in the area who require childcare in order to enable them to take up, or remain in, work or undertake education or training which could reasonably be expected to assist them to obtain work.

Section 7 sets out a duty to secure free early years provision for preschool children. The current regulations prescribe that every child aged three or four is entitled to 15 hours per week free early years provision for 38 weeks of the year. This provision must also be provided for two year olds from less well-off families (currently around 40% of children). Early Years and Childcare provision includes full day care, pre-schools, crèches, child minders, breakfast, after-school and holiday clubs and nursery classes in schools. This multiplicity of provision, working in partnership with the private and voluntary sectors, enables a wide range of childcare options to be available.

#### 5.1.2 How the need for additional provision is assessed

All residential developments of twenty or more dwellings will be assessed to see if a developer contribution towards additional Early Years and Childcare is necessary. Commercial developments that will employ fifty or more people (whole time equivalent posts) may also be expected to contribute towards early years and childcare provision. Applications for smaller developments will be exempt unless their co-location with other sites necessitates a holistic look at their cumulative impact.

The Early Years & Childcare Service will only require developer contributions where there is a current or forecast lack of provision in the immediate area of the proposed development. Unfilled places at one type of provider cannot, however, be taken as evidence that provision in an area is sufficient. The work patterns and incomes of parents are all different and so are their childcare needs. Essex County Council has a duty to facilitate diverse provision and thereby broadly meet the needs of all groups.

Details of Childcare Sufficiency Assessments and Area Action Plans are published on the Essex County Council website. These assessments give a snapshot of different providers in an area and the number of places that are filled. They should be read in conjunction with Local Plans, and other development proposal documents, plus census information to gain a holistic view of future demand.

### 5.1.3 Calculating demand from new housing development

When estimating the number of children that a new housing development will generate and that will require additional provision (child yield), the Early Years & Childcare Service takes account of the number of houses and flats that are suitable to accommodate children. For Early Years and Childcare contribution purposes, houses are all dwellings with two or more floors and with sole access to private outdoor space. Maisonettes, trailers and bungalows (not chalet style bungalows with an attic room) may thus be treated as flats. One bedroom units and dwellings, such as student and elderly accommodation, are excluded from the calculation.

The child yield from qualifying houses is nine children per one hundred homes (0.09 per dwelling) with half this number expected from qualifying flats i.e. 0.045 per dwelling. Example: A development consisting of 120 x one bed units; 200 x flats (with two or more bedrooms) and 65 houses would generate the following number of children requiring a place:

| Dwelling Type | Units      | Factor | Child Yield  |
|---------------|------------|--------|--------------|
| One bed       | 120        | 0      | 0            |
| Flats         | 200        | 0.045  | 9            |
| Houses        | 65         | 0.09   | 5.85         |
| <b>Total</b>  | <b>385</b> |        | <b>14.85</b> |

### 5.1.4 Calculating demand from employment sites

When estimating the number of Early Years & Childcare places that a new employment proposal will require, a factor of four places per one hundred employees is used. In the case of outline applications where the number of employees is not stated, an estimate based on floor space is made. The latest guidance on employment densities in different types of business was published, in 2010, by the Homes and Communities' Agency under the title 'Employment Densities'.

Example: A development expected to employ 150 staff would generate the following number of children requiring a place:

150 employees X 0.04 places per employee = demand for 6 places.

### 5.1.5 Types and use of contributions

Financial contributions may be sought to help extend existing provision or provide a new facility. Up to five developments may be earmarked to contribute towards a project if a cumulative impact is identified. Larger groups of development (upwards of 250 dwellings or 500 employees) are most likely to trigger the need for a new setting and in such circumstances a land contribution is also required.

For a standard 56 place day nursery, around 0.13 ha of land is needed. The process for agreeing a suitable piece of land is explained in section 4 of this guide.

Where the development in question also triggers the need for other community facilities it is often appropriate to co-locate Early Years and Childcare facilities. Provision is commonly included in plans for new schools but it may also be appropriate to consider the benefits of an Early Years and Childcare provider acting as anchor tenant in a joint use community facility.

In some circumstances, subject to procurement and competition rules, it may be appropriate for the developer to provide buildings in lieu of a financial contribution. Where this approach is accepted the facility must comply with a specification provided by Essex County Council (example provided as appendix F) and any tenant, and their business model, must also be approved. When the County Council commissions additional EY&C places and uses S106 funding to provide those places, it will require the provider to enter into a legal agreement detailing the building works and the number of additional places to be provided.

### 5.1.6 Contribution costs

The cost of each project and, thereby, any appropriate developer contribution must be considered on a case by case basis. By way of guidance, however, the expansion of existing facilities has in the past cost around £13,500 per place. Appendix G provides an exemplar cost breakdown for a new 56 place day nursery, which is considerably higher than the cost of an expansion.

All contributions sought are index linked. The 'PUBSEC' Building Tender Price index is used to index link all Early Years and Childcare contributions. The index is published by the Business Information Service of the Royal Institute of Chartered Surveyors.

## 5.2 Schools

### 5.2.1 Background

The availability of places at a popular and successful local school is likely to be an important pull factor for families considering the purchase of a new home. Conversely, new residential development is unlikely to be welcomed by the existing community if additional pupils moving to the area deny their children a place at the local school or lead to larger class-sizes. Developer contributions towards education provision thus play an important role in the success of new residential developments.



Under section 14 of the 1996 Education Act, local authorities must secure sufficient school places to serve their area. The available schools must be sufficient in number, character and equipment to provide all pupils with the opportunity of an appropriate education. Section 2 of the 2006 Education and Inspections Act further places Essex County Council, as the appropriate local authority, under a duty to secure diversity in the provision of schools and increase opportunities for parental choice. Subsequent legislation has encouraged the development of a more diverse range of education providers, particularly Academy Trusts and Free Schools.

Section 2 of the 2008 Education and Skills Act requires that all persons under the age of eighteen yet to obtain a 'level three' qualification (for example two 'A' levels), must participate in education or training. Participation does not require all young people to stay on at school, as employment-based training can fulfil this requirement.

Paragraph 72 of the NPPF states that 'The Government attaches a great deal of importance to ensuring that a sufficient choice of school places is available to meet the needs of existing and new communities. Local planning authorities should take a proactive, positive and collaborative approach to meeting this requirement, and to the development that will widen choice in education. They should:

- Give great weight to the need to create, expand or alter schools; and
- Work with schools promoters to identify and resolve key planning issues before applications are submitted.'

The County Council acts as a commissioner rather than a provider of new schools. It has the duty to set out the requirements for any new school needed to serve a new community in order that potential providers may express their interest in providing that school. Where a Section 106 agreement provides the land and funding for a new school, the County Council will usually procure the school building and then transfer the new building for the successful provider to occupy.

Regardless of whether schools have Academy status, are Free Schools, or are maintained schools, the County Council remains the responsible authority for ensuring that there are sufficient school places available within the county to meet the educational needs of its school age (5-19 years) population. This means that the County Council remains the appropriate authority to assess the requirements for school place provision for any new housing developments; be a signatory to any S106 agreement and receive the appropriate contributions.

### 5.2.2 How the need for additional school places is assessed

The process described in this section is summarised diagrammatically in appendix H.

The threshold for contributions is based on the pupil product figure. Any development that would produce more than 6 pupils could generate a request for a contribution. This is justified on the ground that 'as any project is limited to 5 S106 agreements' 30 pupils (6 pupils x 5 S106 agreements) would generate sufficient funding for a single class base.

Attached below is a worked example:

### Primary

| Dwellings   | Factors    | Pupil product |
|---|------------|---------------|
| 20 houses   | 0.3        | 6             |
| 40 x 2 bed flats                                    | 0.15       | 6             |
| Mixed development of 15 houses and 10 x 2 bed flats | 0.3 & 0.15 | 6             |

### Secondary

| Dwellings   | Factors   | Pupil product |
|---|-----------|---------------|
| 30 houses   | 0.2       | 6             |
| 60 x 2 bed flats                                    | 0.1       | 6             |
| Mixed development of 20 houses and 20 x 2 bed flats | 0.2 & 0.1 | 6             |

Contributions towards the provision of additional places will not be sought where pupil forecasts suggest that existing local schools can reasonably accommodate the expected increases in demand for places without expansion.

The document 'Commissioning School Places in Essex' is published on an annual basis and sets out the current availability of school places in each area of the county. It also includes a forecast outlining the picture in five years' time based on G.P. registration data, numbers of pupils on school rolls, planned housing development, historical trends and other factors likely to affect admissions to particular schools. The forecast methodology is outlined in the document, along with an evaluation of the accuracy of previously published forecasts.

The need for additional school places to serve new development may either be immediate or gradual. It is considered reasonable to take account of the future demand for places as well as the current picture since:

- there will be a time lag between the planning application and completion of the development;
- the peak of additional demand for places generally comes a few years after a development is first occupied and
- the development will be a permanent feature of the local community and it should not thus cater just for its immediate impact.

Any school accommodation that is temporary in nature, as defined by either its planning permission or design life, is excluded from the assessment of available places. The

presence of temporary accommodation should be taken as evidence that a school is already under pressure for places. Although some 'temporary' class-bases can remain on school sites for a considerable period of time, they will eventually be removed if not needed by the existing community. It would be unreasonable for pupils from a new development to generate the need for temporary class-bases to be converted to permanent build without the developer making an appropriate contribution.

School capacity figures used in assessing the need for a developer contribution are either based on the Department for Education's 'Net Capacity' assessment model or on the capacity set out as part of an Academy funding agreement. 'Commissioning School Places in Essex' may for some schools show an intended future capacity figure which includes works that the County Council expects to need to be undertaken during the five year period covered by the document. This could include work based on the assumption that developer contributions are going to be made to accommodate the additional pupils from new housing in a particular locality.

It is generally accepted that education provision in an area should not operate at 100% of its capacity, as it is important to retain some level of surplus places. The National Audit Office report 'Capital Funding for New School Places' (2013) refers to a minimum 5% surplus that the Department for Education assumes in its planning as necessary to support operational flexibility (mid-year admissions) and facilitate parental choice. A deficiency may thus be deemed to exist without the certainty of every local place being filled.

In deciding which local provision it is reasonable to include in an assessment, the needs of the new development must be balanced against those of the existing community. If the new development displaces pupils from another area there may be significant local opposition to the scheme. It is, therefore, important to look not just at the nearest school but also at the wider area. There may, for example, be places at a school within reasonable distance of the new development to which pupils could safely walk. Conversely there may be surplus places forecast at the nearest school that will be needed by the current population because another local school is forecast to be oversubscribed.

Traditionally schools have admitted pupils from their priority admissions or 'catchment' areas. Current school admissions are, however, also based on a number of other criteria including the presence of siblings at the school, faith or aptitude in a particular curriculum area. Schools with admissions policies that could exclude the majority of pupils moving to a new development from gaining admission are excluded from the assessment of developer contributions. A list of admissions criteria for schools can be found in the Schools Admission Policies Directories which are available on the Essex County Council website.

Having taken all the above factors into account, where it can be demonstrated that the number of pupils generated by a development is greater than the surplus capacity in permanent accommodation in a suitable school(s), the County Council may require a developer contribution to build additional permanent capacity. This may on occasions

include the transfer of land. For this purpose a suitable school is any Academy, Free School or maintained school that provides education appropriate to the age, ability and aptitude of a child between the ages of 4-19. This definition excludes schools providing education exclusively for pupils with special educational needs or disabilities. Whilst selective schools and faith schools can and do provide education that is appropriate to the age, ability and aptitude of children between the ages of 4-19 they are excluded from the assessment of developer contributions on the basis that their admissions policies could exclude the majority of pupils moving onto a new development.

In addition to contributions to build additional permanent places, a contribution may also be sought to fund transitional costs. This may apply when there is no surplus capacity at schools within a reasonable travelling distance and additional provision cannot be delivered quickly to serve the development. In such cases Essex County Council will need to provide temporary accommodation at existing schools and/or provide school transport to schools in excess of two miles for children under the age of eight and three miles for older children. These distances are measured via the shortest available safe walking route.

Essex County Council may seek developer contributions to fund these costs in addition to the sums required to provide the permanent places needed. This situation will only usually arise during the first phases of a major development or when the phasing of development does not allow a new school to be delivered early on.

### 5.2.3 Calculating demand from new housing development

When estimating the number of children that a new housing development will generate, and that will require a school place (yield), Essex County Council takes account of the number of houses and flats that are suitable to accommodate children. One bedroom units and dwellings, such as student and elderly accommodation, are excluded from the calculation. For education contribution purposes, houses are all dwellings with two or more floors and with sole access to private outdoor space. Maisonettes, trailers and bungalows (not chalet style bungalows with an attic room) may thus be treated as flats.

The primary school yield from qualifying houses is thirty pupils per one hundred homes (0.3 per dwelling) with half this number, fifteen, expected from qualifying flats (0.15 per dwelling). For secondary schools (including post 16 education or sixth form places) the yield is 20 pupils per 100 qualifying houses (0.2 per dwelling) and 10 pupils per 100 qualifying flats (0.1 per dwelling).

**Example:** A development consisting of 120 x one bed units; 200 x flats (with two or more bedrooms) and 65 houses would generate the following number of children requiring a place:

| Dwelling Type | Units      | Primary |       | Secondary |       |
|---------------|------------|---------|-------|-----------|-------|
|               |            | Factor  | Yield | Factor    | Yield |
| One bed       | 120        | 0       | 0     | 0         | 0     |
| Flats         | 200        | 0.15    | 30    | 0.1       | 20    |
| Houses        | 65         | 0.3     | 19.5  | 0.2       | 13    |
| <b>Total</b>  | <b>385</b> | Pupils  | 49.5  | Pupils    | 33    |

#### 5.2.4 Expanding existing provision

If it is not planned to build a new school, financial contributions will be used to fund capital works to add additional capacity at academies, Free Schools or maintained schools in the appropriate area.

It may not always be practical or desirable to use S106 contributions to provide additional capacity at the nearest school because, for example, the site may be constrained or the school may not have the necessary infrastructure, in terms ancillary accommodation, to support the increased capacity. In addition, due to legislation that enables voluntary aided schools, Free Schools and academies to refuse proposed expansions, the County Council may be forced to look further afield. In these circumstances the contributions could be used to provide additional capacity through extension, refurbishment or re-modelling of other schools where the needs could be best met. This may result, through parental choice, in changes to local admission patterns or require priority admission area changes to be negotiated with local schools.

When the County Council commissions additional places through a Free School or Academy, and uses S106 funding to provide those places, it will require the provider to enter into a legal agreement detailing the building works and the number of additional places to be provided.

#### 5.2.5 Thresholds for new schools

Essex County Council's own guidelines for new primary schools anticipate that the minimum size for any new mainstream provision will be two forms of entry (420 places), unless there are specific factors that make this approach unviable. The minimum size of a new primary school that can be considered is a single form of entry (210 places).

Where new provision is funded by Section 106 contributions, the size of the school will be determined by the size of the site that can be justified by the scale of development and the level of financial contribution. However, Essex County Council may request on occasion that additional land, that can be purchased, is set aside to allow a two

form entry school to be established through additional funding from other sources. 210 primary aged pupils represent one form of entry, across seven year groups, and this number is likely to be generated by approximately 700 new houses or a mixed development of approaching 1,000 dwellings. However, it must be recognised that if suitable existing local schools cannot be expanded, a new school may become necessary to cater for any number of additional pupils.

With regard to secondary education, new schools are only likely to be required to serve large green field sites. Four forms of entry (600 pupils in the 11 to 16 age range), is the minimum secondary school size that would normally be considered to be financially viable. This would equate to some 3,000 houses or a mixed development of over 4,000 dwellings (i.e. houses and flats).

To achieve this size, and to integrate communities, it is likely that such a school would serve a wider area than a single new housing development. The precise number of new homes to trigger the need for a new secondary school thus requires careful consideration on a case by case basis.

#### 5.2.6 The Cost of Additional Places

At current costs extending an existing primary school can be estimated to cost on average in the region of £12,200 per place. The equivalent cost for secondary places is circa £18,500.

With an extension scheme it is often unnecessary to expand all the common areas used by a school such as the staff room, toilets or the hall. The cost of major works and new schools is thus higher. Example new school costs are provided in appendix I

The precise cost of projects will be determined by Essex County Council after reviewing the Land Compliance Study report (see section 4) that the developer must submit with any planning application that includes land for a new school.

#### 5.2.7 School Site Areas

The area of land that Essex County Council requires for schools is based on current Department for Education Building Bulletins, the latest being BB103, and other relevant publications. In line with its aspiration to increase educational achievement and enhance skills, Essex County Council will always seek site areas towards the top end of the recommended range. Central government also encourage 'extended schools' that include other community services and, clearly, larger sites are required if joint use of school facilities is to be considered. In order to produce a school with manageable year groups, Essex County Council may require slightly more land than is indicated by a straight forward calculation of pupils from a development. The following figures are a guide to likely requirements in terms of land:

## Primary

| Class bases | Pupils / Places | Site Area (hectares) | Ideal Dimensions (metres) |       |
|-------------|-----------------|----------------------|---------------------------|-------|
|             |                 |                      | Length                    | Width |
| 7 (1FE)     | 210             | 1.0926               | 130                       | 84    |
| 14 (2FE)    | 420             | 1.9452               | 162                       | 120   |
| 21 (3FE)    | 630             | 2.7978               | 175                       | 160   |

## Secondary

| 11 -16 Places / Pupils | Site Area (hectares) |
|------------------------|----------------------|
| 900                    | 6.77                 |
| 1200                   | 8.66                 |
| 1500                   | 10.55                |

One extremely important consideration when considering the land required for a new school is the provision of sports pitches. For a playable surface, a consistent gradient of approximately 1 in 70 widthways should be achieved. This encourages suitable water run off without hindering play.

The following pitch sizes need to be considered:

| Pitches - including run off areas |                |                 |                 |
|-----------------------------------|----------------|-----------------|-----------------|
| Age                               | Width (metres) | Length (metres) | Area (hectares) |
| Minimum Primary                   | 49             | 82              | 0.402           |
| Preferred Primary                 | 59             | 92              | 0.543           |
| Age 13 to 15 min.                 | 54             | 87              | 0.470           |
| Age 15 to 17 min.                 | 59             | 103             | 0.608           |
| Senior (18) min.                  | 72             | 114             | 0.821           |
| Adult min.                        | 76             | 118             | 0.897           |

Where ideal site areas cannot be achieved artificial pitches may be considered as a way of reducing the land that a school requires. The cost of providing and maintaining artificial pitches is, however, significant and likely to add considerably to the financial contribution sought by Essex County Council from the developer.

### 5.2.8 Additional site requirements to consider

The main requirements that a school site must meet are set out in appendix C and the process and evidence needed to agree a site are explained in section 4 of this guide. There are, however, a number of considerations specific to schools which warrant additional guidance here.

## Utility Requirements

| Places                      | 210  | 315               | 420               | 630               |
|-----------------------------|--|-------------------|-------------------|-------------------|
| Electrical<br>(three phase) | 100KVA<br>200amps  | 130KVA<br>200amps | 150KVA<br>200amps | 200KVA<br>300amps |
| Gas<br>(21mbar at meter)    | 230KW/HR   | 300KW/HR          | 400KW/HR          | 550KW/HR          |
| Water (domestic)            | 50mm 1.5L/S  | 65mm 2.0L/S       | 65mm 3.0L/S       | 65mm 4.2L/S       |
| Water<br>(sprinkler system) | A 100mm mains connection pressurised system is required, storage tank with pumps to fill the tank in 36 hours. |                   |                   |                   |
| Telecom ducts<br>(90 mm)    | 2  | 2                 | 2                 | 3                 |

N.B. Advice should be sought from Essex County Council’s Infrastructure Delivery team and the appropriate project manager before relying on these estimates.

## Fence Requirements

Prior to transfer to Essex County Council all school sites must be fenced by a 1.8 metre high welded mesh polyester powder coated (conforming to BS1722-16:1992) fence with vertical wire diameter of at least 5mm and horizontal wire diameter of at least 7mm conforming to BS 1722 Part 14:2001 ‘specification for open mesh steel panel fences Category 1 (general purpose fences up to 2.4m high)’ and gated at both highway access points.

Where congruent to vegetation or soft landscaping the fence must be supplemented by rabbit- proof fencing that shall be a minimum of 0.9m in height. The rabbit-proof fencing must be constructed with wire netting, to be 18-gauge (1.2mm diameter) with 31mm hexagonal mesh conforming to the appropriate British Standard and European DIN Standard. The base of the fence must be turned outwards from the school site by a minimum of 150mm and buried with clean topsoil. The specification for the rabbit fencing, including all posts, struts and stakes must also be in accordance with CIRIA report C645 ‘A Guide to Rabbit Management’.

Where appropriate, fencing should be supplemented by landscaping. New tree and shrub planting should also be protected with individual rabbit guards. Species should be considered carefully to ensure that plants will not prove a burden to the school either in terms of maintenance, safety and or security.

## Soil Quality Requirement

The levels of any compound in the soil, to a depth of at least three metres below the final soil level, shall not exceed figures set for residential end use as defined by the Soil Guideline Values (SGV) derived using the Contaminated Land Exposure Assessment (CLEA) model and published by the Environment Agency and also the Generic Assessment Criteria values published by Land Quality Management and the Chartered Institute of Environmental Health at the time of the assessment. Any contaminants



leaching from the site must not exceed the levels published in the United Kingdom Environmental Quality Standards (statutory and proposed).

## **5.3 School transport & sustainable travel**

### **5.3.1 Assessing the need to provide School Transport**

The Education Act 1996, as amended by Part 6 of the Education and Inspections Act 2006, places a duty on Local Authorities to make suitable travel arrangements free of charge for eligible children as they consider necessary to facilitate their attendance at school. Walking distance is defined by S 444(5) of the Education Act 2006 at two miles for under-eights and three miles for those who have attained eight years.

These distances are measured by the shortest available walking route. An ‘available route’ is one which a child, accompanied as necessary, may walk with reasonable safety to school. In excess of these distances Essex County Council has to fund ‘free’ school transport. Where development is proposed in locations that may require Essex County Council to provide school transport, developer contributions are sought to fund provision for a minimum of seven years for primary and five years for secondary pupils

On average the cost of transporting a primary school child to school is around £8 per day (return). The cost for secondary school transport is £4.30. This is due to economies of scale. The calculation of school transport contributions is based on 190 school days per year.

### **5.3.2 Promoting sustainable modes of travel**

The County Council has statutory duties to promote the use of sustainable methods of transport for all education and training related journeys, from pre-school age to post 16 students. Under the Education and Inspections Act 2006, authorities are encouraged to develop Travel Plans with schools.

Essex County Council will use its highways, transport and schools expertise to examine the provision of safe walking and cycling routes from new housing to education and other community facilities. Safe direct routes that encourage parents to leave the car at home will be required on all new developments. Financial contributions may also be required for off-site works. Such contributions may also be appropriate from smaller developments.

Where appropriate Highway contributions (as set out in section 5.6.3) to establish a safe walking route will be considered before seeking a school transport contribution.

## **5.4 Youth**

### **5.4.1 Background**

Youth work in Essex is delivered through a range of informal learning and personal development services that fulfil a number of statutory obligations (detailed in appendix J) as well as providing personal development opportunities. Access to good quality youth services is vital in ensuring strong community cohesion and can ultimately contribute to

the success of a development and the area's economic well-being.

The Service works mainly with young people between the ages of 13-19. It works alongside schools and other partners to:

- Provide access to advice and guidance;
- Deliver targeted support to those at risk of not progressing;
- Support volunteering and community development;
- Provide access to personal and social development programmes;
- Support young people to have a voice and active involvement in their communities.

Services are delivered from 'youth hubs', satellite centres, community buildings, mobile units and outdoor spaces where young people gather. Critical to the work is involving partners, particularly young people, who are fully involved in service design, delivery, governance and evaluation of our services.

#### 5.4.2 What is needed to serve new development

It is estimated that for every 20 dwellings there will be a young person needing some youth work provision. The minimum size of development requiring a bespoke youth centre or dedicated youth space (catering for approximately 60 young people) is around 1200 houses. The capital cost of such a facility can be put at around £700,000.

Most youth provision is, however, delivered through flexible community spaces. The need for developer contributions, thereby, needs to be considered on a case by case basis and in partnership with other services that may be delivered out of multi-functional community hubs.

In addition to community buildings there are a number of low cost 'big win' facilities that can be provided as part of new development of various sizes. Examples include (at current costs):

- Multi Sports Arena or Multi Use Games Area (MUGA) - costing around £40,000;
- A basic skate park - costing around £35,000;
- Youth shelters - costing around £10,000.

### 5.5 Social Care & Public Health

#### 5.5.1 Background

City, Borough and District Councils in Essex are responsible for securing contributions from developers towards Affordable Housing but Essex County Council has responsibilities for housing some vulnerable groups and will work with districts on how these responsibilities can best be met.

These services are provided to deliver wider benefits to individuals and communities as well as to meet statutory duties. The strategic and legislative framework for social care is set nationally with local strategies and initiatives developed to interpret national strategy

and reflect local priorities.

The Care Act 2014 has integrated the provision of social care and health services for the benefit of the client. Health and social care providers in Essex are increasingly seeking to join up their efforts into integrated pathways which provide a consistent service for citizens and make best use of resources. Essex County Council has appointed Integrated Commissioning Directors to work with each of the five local Clinical Commissioning Groups (CCGs) to join up services.

### 5.5.2 Specialist housing need

In order to deliver its aims and duties, the Council seeks to develop a range of supported living options and to commission services to support people to remain living independently for as long as possible.

Since 2012 Essex County Council has offered capital grant support to developments for working age adults with disabilities and in 2014 began to make a similar offer for housing for older people. The number of schemes accessing these grants is lower than anticipated and insufficient to meet the current and future demands.

In 2014 the Essex County Council began developing a strategic approach to the delivery of housing for older people at scale; districts, providers and developers are involved in shaping the outcomes. This work will be progressively concluded. It is likely to include details of a continued capital grant scheme, models for land and building donations to support scheme viability and proposals for Essex County Council to work in closer partnership with a number of developer/providers. A similar process is being considered to meet the needs of working age adults with disabilities.

A Market Position Statement, which is updated at regular intervals, provides a picture of the County in terms of demand, supply and opportunity for a range of specialist housing. Specific needs identified include:

- Older people: Data analysis tells us that there are approximately 5,000 Essex residents who meet the criteria to access specialist housing with care that is being provided as an affordable housing option. This figure increases only slightly over the next 5 years. A proportion of these 5,000 residents will be best served by a form of specialist housing with care.
- Working age adults with disabilities: There is an identified shortfall of around 270 units of supported accommodation of various types across the County.

Details on the characteristics of suitable sites/ buildings for specialist housing with care for older people and working age adults with disabilities can be found in Appendix O.

- Mental health: There is a need for blocks of 12 or so flats, with an on-site office, in a number of areas. In addition, there is a need for move-on accommodation of self-contained flats in general needs accommodation.
- Vulnerable people: Support is currently provided to a range of vulnerable groups such as women fleeing domestic violence; homeless single people and families, older people and people with substance misuse problems.

### 5.5.3 How Essex County Council will work with developers

Essex County Council is keen to see integrated and supportive communities for all the citizens of Essex. It is already working with developers and providers to deliver a range of supported living options and wants to expand that approach and work is underway to explore the options of how this can be achieved.

## 5.6 Highways and Transportation

### 5.6.1 Background

An efficient transport system is central to the growth of the Essex economy. Essex County Council, thereby, works closely on long-term transport plans with each Local Planning Authority in support of their Local Plans. This work assesses the overall impact of development and identifies solutions to potential congestion, including better passenger transport, public rights of way, travel planning and network management.

Essex County Council, acting as the Highway Authority, is consulted by the Local Planning Authority on any planning application that may have an impact on the Highway. In its response, it may object to schemes that impact negatively on the network or do not meet specific policy requirements. To assist developers in overcoming objections, Essex County Council may request mitigation measures in the form of works to the Highway; actions such as the provision of travel packs or financial contributions towards strategic projects.

### 5.6.2 Assessing the impact of development

Any development site that proposes 50 dwellings or more, or commercial development that generates equivalent or higher traffic flows, will require a full Transport Assessment or a Transport Statement. The assessment will identify the impact of the development and how to make the site sustainable in transport terms and, therefore, acceptable to the Highway Authority. Early discussions with the Highway Authority are recommended to set out the scope of any Transport Assessment or Transport Statement. Details on the thresholds for Transport Statements and Transport Assessments are given in Appendix B of ECC's Development Management Policies February 2011 and any subsequent updates.

Small scale developments, in particular those in urban and town centre locations, may have a cumulative impact on existing transport infrastructure. Given the scale of this type of development, in most cases it is unlikely that a Transport Assessment or Transport Statement will be required.

When identifying solutions, priority must be given to promoting 'smarter choices' i.e. alternatives to private car use and those that make efficient use of the transport network. Essex County Council employs a sequential test under which measures such as travel planning will be looked at first, then schemes designed to enhance walking and cycling, followed by public transport enhancement and then highway works. In mitigating the impact of a development on the highway network, direct mitigation by the developer is preferred.

### 5.6.3 Highway works versus contributions

Large scale strategic projects identified through the Local Plan process are likely to be funded through a Community Infrastructure Levy, where one is in place. When considering the impact of individual developments, Essex County Council will require developers to complete or procure any necessary works to mitigate the impact of their development. Where more than one development in an area (but no more than five) generates the need for a specific Highways project which does not directly form part of one of the developments, it may be appropriate for Essex County Council to secure financial contributions through a Section 106 agreement and procure the necessary works. This approach will, however, only be taken in exceptional circumstances.

The purpose of any Highway works will be set out in a Section 106 agreement between Essex County Council and the developer along with a broad description of the measures and location. A Section 278 or similar agreement may then be required prior to the works commencing to agree the precise design of the measures.

### 5.6.4 Highway Works and Surety

By requiring developers to undertake works under a Section 278 or Section 38 agreement, the work is completed as part of the development. There is, however, an associated risk that works may not be completed to the standards or designs approved by Essex County Council and, therefore, an appropriate surety (either a cash deposit or a paper bond) that can be called on to pay for the completion of works, in the event of default, is required. For minor works, Essex County Council will consider issuing a works permit instead of requiring a legal agreement. Where this is accepted, the value of works must still be backed by a surety.

### 5.6.5 Inspection fees

Where developers are working in the highway, inspections have to be carried out by Essex County Council and fees are charged, based on the cost of the works. At the current time the following fees apply:

| Cost of Works       | Fee applied             |
|---------------------|-------------------------|
| Under £10,000       | £850                    |
| £10,000 to £500,000 | 8.5% of cost of works   |
| £0.5m and £1.5m     | 7.5% of cost of works   |
| Above £1.5m         | Determined case by case |

In the case of larger fees, these are payable in stages with the first advance payment being £3,000. More details can be found on pages 26-27 of Essex County Council's Development Construction Manual.

### 5.6.6 Traffic Regulation Orders (TROs)

Where a development requires a traffic regulation order e.g. to provide waiting

restrictions, there is a fee payable, to Essex County Council, to cover the costs of processing and advertising the order(s). The fee starts at £2,000 but varies according to what order and associated works are required. Details can be found on page 27 of the Development Construction Manual. Where Essex County Council takes a contribution to complete Highway Works through a Section 106 agreement, it will include the cost of Traffic Regulation Orders in the sum requested.

#### 5.6.7 Commuted Sums for Maintenance

When the Highway Authority takes on assets from developers it incurs maintenance costs for the life of the assets, and replacement costs at the end of their useful life. Commuted sums to cover these costs are required from the developer. These sums are most commonly secured through Section 38 agreements, but any agreement that includes the transfer of an asset to Essex County Council may require such a contribution. The types of asset include:

- Street lighting
- Traffic signals and illuminated signs
- Pedestrian crossings
- Highway structures such as retaining walls, bridges and gantries
- Landscaping and adopted land
- Fencing and noise bunds
- Bus shelters and other public transport infrastructure
- Street furniture and bollards
- Soak-aways
- Drainage infrastructure including SUDS
- Tree planting in soft and hard landscaping, hedges
- Culverts
- Traffic management features
- Interceptors
- Pavements

The calculation of commuted sums for maintenance follows the principles set out in the guidance produced for the Department for Transport by ADEPT, the Association of Directors of Environment, Economy, Planning and Transport, formerly the County Surveyors' Society. More details of this guidance, and how sums are arrived at, are given in appendix K. A full list of assets, with relevant maintenance contributions, is given in appendix L. It must be noted that developers should not assume that Essex County Council will accept responsibility for or maintain all Highways infrastructure. For example, street lighting that does not form a useful network function may not be requested on some roads and it would not thereby automatically be eligible for adoption.

Any asset that a developer is seeking Essex County Council to adopt must be in an appropriate condition and any required maintenance work at that time must be completed by the developer prior to transfer. Where proposed materials are not within

the current specification applied by the Highway Authority, additional sums may be added or adoption of the item refused.

There are also special circumstances whereby Essex County Council will require commuted sums for maintenance of an asset it already owns. For example, if construction traffic is likely to damage the carriageway, the developer may be required to deposit a sum with Essex County Council. The sum will in whole or in part be returned if no damage occurs. This type of maintenance is usually secured through a Section 106 agreement.

## 5.7 Sustainable Travel Planning

### 5.7.1 Background

Travel Plans are long term management strategies providing a framework for managing transport issues and promoting travel choice. Developing a Travel Plan can help to reduce the use of the private car, which in turn helps to tackle localised congestion.

In accordance with the requirements of the NPPF, Travel Plans are an essential component of workplace, schools and residential planning applications. Each plan contains targets, such as ‘modal share’ and identifies measurable outcomes, along with arrangements for monitoring the Plan’s progress and actions to be agreed in the event that targets are not met.

### 5.7.2 Workplace Travel Plans

Workplace Travel Plans are required for all commercial developments, including expansion plans, where the proposal would take total staff numbers to 50 employees or more. A robust Travel Plan can aid recruitment, retention and morale, improve transport infrastructure and reduce congestion in and around the site, also raising the ethical profile of the company. More information on developing a Workplace Travel Plan can be found in the document ‘Helping you create a Business Travel Plan.’ Examples of frameworks for Workplace, Residential and School Travel Plans can be obtained from [travelplanteam@essex.gov.uk](mailto:travelplanteam@essex.gov.uk).

### 5.7.3 Residential Travel Planning

Focusing on travel by residents and designed to encourage sustainable travel from the start of a journey, rather than to a specific destination, and for a number of journey reasons, i.e. work, leisure, education and/or accessing services.

The requirements for Residential Travel Planning are broken down as follows:

*Residential Travel Information Pack - applicable for all residential developments comprising of 1 to 249 dwellings:*

A leaflet, tailored to the specific site location, containing information on sustainable travel options and promoting their benefits; including tickets for free bus (or rail) travel.

Sections included are listed below:

- Introduction
- Local Area - map to show local amenities and travelling distance.
- Cycling and walking
- Local Facilities and Amenities
- Bus Travel ((Depending on the development and the bus operator concerned these are likely to be First All Essex scratch card tickets or Arriva monthly season tickets)
- Rail Travel (including free tickets if applicable)
- Car Sharing
- Other ways to get around
- Useful Contacts

The Packs can be purchased at a charge through the Sustainable Travel Planning team.

*Residential Travel Plan - applicable for all residential developments comprising of 250+ dwellings:*

A working plan includes a number of travel plan measures (listed below) to ensure sustainable means of travel are available to residents. The Plan will incorporate the Travel Information Statement, a personalised travel plan, a Travel Plan Co-ordinator, aims & objectives, targets (including an action plan) and an agreed monitoring programme (including biennial travel surveys and traffic counts).

Measures include:

- Safe pedestrian and cycle routes
- Car Clubs
- Transport maps, leaflets and information
- Developer websites, travel information boards or online portals
- Community travel events
- Community Engagement Group
- Walking/cycling challenges
- Car charging points (standard and rapid chargers)

**Please note:** the above descriptions for each of the individual elements are the current requirements, however these could be altered and more detail added in the future.

#### 5.7.4 School Travel Plans

Where a new development includes a proposal for building new educational or training spaces, developers will be expected to help minimise the carbon footprint produced by the education establishment through the design and layout of the development, i.e. through better routes or provision to/from the location.



They will be required to work with the Sustainable Travel Planning team to implement a School Travel Plan. This will involve consideration of access to the educational site and the walking & cycling routes to it, including any appropriate crossing facilities and the funding of a School Crossing Patrol (for Primary Schools), in line with the ECC School Crossing Patrol Policy. (<http://www.essexhighways.org/transport-and-roads/gettingaround/walking/school-crossing-patrol.aspx>)

#### 5.7.5. Section 106 requirements

Details of the legal obligations associated with Travel Plans are set out in the template Section 106 agreement provided as appendix A to this guide. Developers are required to pay a one-off fee of £3,000, index-linked to the Government’s Consumer Price Index (CPI) and based on April 2015 costs for Essex County Council to monitor and review each Travel Plan. The fee pertains to Essex County Council involvement over a five year period from the date of first occupation, to ensure the Travel Plan remains an ‘active’ document with the overarching aim of achieving a reduction in single car occupancy

Monitoring and review consists of three main activities:

- 1 Management and co-ordination of annual travel surveys
- 2 Setting modal shift targets annually with agreement between both parties
- 3 Providing advice and support to the on-site Travel Plan Co-ordinators

The fee structure for residential developments is detailed below:

|                       |  |
|-----------------------|--|
| Up to 249 dwellings:  | No charge                                |
| 250 to 449 dwellings: | £1,500 per annum (index-linked as above) |
| 450 to 749 dwellings: | £2,500 p/a (index-linked as above)       |
| 750+ dwellings:       | £3,000 per annum (index-linked as above) |

For applications of more than 1000 dwellings, the monitoring fee will be negotiated case by case.

An authority may require a developer to prepare a full Residential Travel Plan (including employment of a Travel Plan Co-ordinator and traffic counts) for a development which has fewer dwellings than those identified in the thresholds specified above, for example because the development is in an area that is particularly congested or has an air quality issue. In such cases the County Council will require an annual fee of £1,500 to monitor and review the Travel Plan.

This fee is for services supplied to the developer by Essex County Council, for the provision of support and advice to the onsite Travel Plan Co-ordinator on the management and implementation of the Residential Travel Plan; enabling them to effectively deliver the Travel Plan and co-ordinate travel surveys and/or traffic data counts.

In all cases (both Workplace and Residential) the developer is responsible for producing the draft plan and any travel packs that are required. The developer may however seek Essex County Council's assistance and under certain circumstances buy-in ECC's expertise.

## **5.8 Passenger Transport**

### **5.8.1 Background**

Essex County Council acknowledges the role public transport has in keeping communities connected, supporting economic growth, reducing congestion and helping maintain journey time reliability for all road users. Public transport supports our individual ability to reach essential services and has a major influence on our overall quality of life. Such services are particularly important in rural communities and for sections of society that do not have access to a car, such as young people.

Essex County Council, as the Local Highway and Transportation Authority, has responsibilities for public transport under the Transport Act 1985, the Transport Act 2000, the Traffic Management Act 2004 and the Local Transport Act 2008. The legislation requires the production and review of a Local Transport Plan which identifies transport policies and how these will be delivered.

Essex County Council has published a Road Passenger Transport Strategy adopted as part of its Local Transport Plan. The Council's policies for dealing with the public transport issues arising from new developments are described in these documents.

The third Essex Local Transport Plan was published in April 2011 and sets out the Council's long-term strategy for delivering a transport system which supports sustainable economic growth and improves quality of life. The Plan, and the policies contained within it, covers both revenue spending on transport services and capital investment. Accompanying the strategy in the Plan is a short-term implementation plan, which identified priorities for investment over the plan period (based on evidence of need and consultation findings). These informed the development of a costed programme of infrastructure improvements. Developer contributions are sought to support the aims of the Essex Local Transport Plan and should, thereby, optimise the benefits for Essex.

### **5.8.2 Common developer contribution requirements**

Where small scale developments are located near to frequent current bus routes, developer funding may be required to improve existing bus infrastructure. Requirements may include the provision of footway access, raised access kerbs, and dropped kerbs, central pedestrian refuges at safe crossing points, bus stop signs, timetable cases, passenger shelters and/or real time passenger information.

For larger developments, diversions to existing bus routes or new services may be required to ensure that walking distances to bus stops are sufficiently attractive and accessible to all. Developers will be required, through a Section 106 agreement, to negotiate directly with bus companies and deliver an appropriate package of services.

So as to encourage modal shift, bus services should be provided at the time dwellings are first occupied. It is thereby likely that in most cases the developer will be expected to subsidise a service until it becomes commercially viable. The agreement may, however, set time, occupation or cash limits to this contribution.

Recognising that many households will require parking for private cars, adequate provision for unimpeded through routing of buses must be made. The design of roads intended as bus routes is key but parking restrictions may also be required. Developers should expect to contribute towards any necessary Traffic Regulation Orders and the delivery of associated signs. The intention to establish bus routes, and the associated measures, must be made clear to potential new residents to ensure that unnecessary objections to Traffic Regulation Orders are avoided.

## **5.9 Public Rights of Way**

The Highway Authority may seek works or a financial contribution from developers to ensure that Public Rights of Way either on, or in areas adjoining new developments, are appropriate to accommodate the additional use new residents will generate. Where the Public Right of Way or relevant part thereof, is over land within the control of the developer, the developer will be required to complete the works under a Section 278 agreement. Where the works require the agreement of any third party owners, Essex County Council may agree to take a financial contribution, and complete the appropriate works, but will only do so where it is evident that the upgrade is achievable. Any transport strategy that relies upon the delivery of an upgraded Public Right of Way must be proved feasible by the developer to be accepted.

Such improvements, where appropriate, may be secured by a Section 106 Agreement (which can have attached to it a public path creation agreement) or by a suitably worded planning condition. Where such improvements are for the provision of a cycle track, which coincides with an existing public path, the developer would be expected to fund the necessary Cycle Track Conversion Order. The agreement would also require the cycle track to be constructed in accordance with specifications agreed by the Highway Authority.

Specimen clauses for insertion to secure Public Rights of Way as part of a development scheme are available in Appendix A.

## **5.10 Waste Management**

### **5.10.1 Background**

Essex County Council has overall responsibility for waste planning; and the disposal of local authority collected waste arising in its area. Essex County Council also has a duty to provide accessible facilities to the public for the disposal of waste; this is currently fulfilled through the provision of twenty one Recycling Centres for Household Waste.

Essex County Council works jointly with the twelve District, Borough and City (lower tier) councils, in its area, in managing local authority collected municipal waste. The twelve

lower tier Councils are responsible for waste collection and recycling services. The full cost of waste disposal is currently in excess of £100 per tonne; and will continue to rise as landfill capacity decreases and the need to meet higher environmental standards come into effect. Each household currently produces in excess of a tonne of waste per annum.

The Joint Municipal Waste Management Strategy for Essex provides the vision for waste management in Essex. It responds to waste level predictions, legislative requirements, landfill capacity and emerging technology. Essex favours an approach led by waste minimisation, coupled with high levels of recycling and composting and the bio-treatment of residual waste. It has an aspiration to recycle 60% of waste and no longer send any waste to landfill.

### 5.10.2 Infrastructure Need

The adoption of the Joint Municipal Waste Management Strategy required the development of a Mechanical Biological Treatment plant for the treatment of residual waste. The facility has been developed in Basildon. It will become the single treatment point in Essex for residual waste which would have previously been disposed to landfill. The strategy also requires the development of:

- six satellite waste transfer stations;
- in-vessel/anaerobic digestion composting facility; and
- a network of easily accessible Recycling Centres for Household Waste

These are currently being developed and are expected to all be operational by 2017

### 5.10.3 Assessing contributions

The waste infrastructure proposed and under development has been designed with some head room capacity built in to accommodate forecast population growth and the associated impacts on waste tonnages. However, the cumulative impact of development will erode this headroom capacity and may require additional infrastructure.

Many of Essex's recycling centres for household waste are already operating at or close to capacity and may be impacted by additional housing in their areas. Contributions through Section 106 agreements may thus be considered on a case by case basis in these areas.

Significant development may also impact on the waste transfer station network and require the expansion of existing stations or the development of new ones in the locality of the waste source. Large developments may be asked to contribute through Section 106 Agreements or funding from a Community Infrastructure Levy.

## 5.11 Public art

### 5.11.1 Background

It is recognised that public art is an important factor in improving the aesthetics of our built environment, enhancing a sense of community and place, whilst also fostering

community pride and ownership. All initiatives in the built environment can benefit from the skills and approach of an artist. These include opportunities for the local context to be creatively explored, community collaboration, site appraisals, contributing to design teams, master plans and other development partnerships.

Essex County Council has a longstanding commitment to the commissioning of public art as part of its Capital Development Programme. The Public Art programme has included headline projects related to art in architecture and highways projects, with Essex gaining recognition on a national level for quality and strategic focus. This forms part of the County Council's Commissioning Strategies for 'People in Essex experiencing a high quality and sustainable environment' and able to '...enjoy good health and wellbeing', to enhance and improve the image of the County of Essex nationally and internationally as an exciting, forward looking and developing location.

Essex County Council has established a Public Art Common Fund to improve strategic planning and align investment decisions with priorities, ensuring that plans fit into wider community services and infrastructure planning processes and timeframes.

Public Art has the ability to support:

- Enhancement of the natural, built and historic built environment
- Social development, enabling people to investigate and celebrate local identity and/or issues, extending opportunities to participate and engage in culture through public art
- Assist in local economic development initiatives

However, there are limitations as to what the County Council can achieve on its own with limited resources. Private developments also have a major role to play in enhancing the environment for communities through the use of appropriate art work.

### 5.11.2 The contribution of development to public art

Within the NPPF there is a requirement to include cultural wellbeing within the Planning system; the contribution of Public Art in delivering cultural wellbeing has been identified with guidance documents. Further information can be accessed through the website stated in the Glossary under Public Art.

To be most effective, artists should be engaged at an early stage in shaping any proposition for development and, certainly, in advance of the submission of a planning application.

To secure opportunities and funding for Public Art it is necessary for a Local Planning Authority to produce a long-term policy and strategy which identifies where, when, how and why public art will be delivered as part of specific development sites and as part of the development of a place as a whole. Details of the policy and strategy should be included within the local planning authority's Local Plan.

Large developments may be asked to contribute through Section 106 Agreements or funding from a Community Infrastructure Levy sought where levies are in place. Contributions through Section 106 agreements may thus be considered on a case by case basis within each Local Planning Authority.

The County Council will encourage all private sector developments to include the integration of art within their schemes. This can manifest itself in many forms such as:

- Large scale, three-dimensional artworks such as sculpture or environmental land art providing a focal point aiding navigation or enhancing an area's identity
- Integrated artwork, incorporated into the architecture or public realm
- Smaller scale, high impact projects including street furniture, which can make a contribution by the sensitive use of fencing, paving, railings, security screening, tree grills, lighting and bollards.
- New media, performances or audio works as part of temporary installations or events.

Place Services lead the delivery of Essex County Council's Public Art Strategy to ensure the work and skills of artists feature in the structures and functioning of new development, either as part of a County Council funded programme, through liaison with Districts & Borough Councils, or by acting as expert consultants for privately funded development. As these arrangements range from district to district, early consultation is strongly recommended.

An approach to development contributions for Culture and Public Art is set out in the 'Urban Place Supplement', a website address for this publication is given in the Glossary.

## **5.12 Protecting Biodiversity**

Essex has been in the lead in piloting a new approach to offsetting the impact of development on biodiversity (or habitats). Protecting biodiversity is backed in the National Planning Policy Framework (paragraphs 109 and 118). The approach involves calculating the value of the habitat which may be lost in 'biodiversity units' and this amount of units has to be replaced (more details of the approach are provided in appendix N). Offsetting can be on or off-site and can be undertaken by the developer directly or can be purchased from a provider of offsets. The Local Planning Authority concerned is best placed to give advice on biodiversity offsetting schemes in their area.

## **5.13 Libraries**

### **5.13.1 Background**

The Library Service is statutory (1964 Public Libraries & Museums Act), and is required to provide a comprehensive and efficient service for all residents and persons working and studying in Essex. This statutory requirement is articulated by central Government through its inspection regime. Further information is found on the Department of Culture, Media and Sport website.

The Library service has increasingly become a shared gateway to other services and also for accessing digital information and communications. The Library service reviews its community profiles for existing libraries on a regular basis,

### 5.13.2 Service delivery

Essex County Council has been able to increase its level of library service in recent years, opening a 74th library in 2013. It would wish to engage with developers to ensure the same high level of service is maintained to new residents

### 5.13.3 When contributions will be considered

Contributions will be sought to provide additional facilities where there is expected to be significant growth in population created by development, where a new community remote from an existing provision, is established

For provision of new libraries, including within community shared facilities, the process below is followed, with local district considerations taken into account:

- Planning applications for developments with 20 or more dwellings will be considered
- Other known growth in area will be taken into account
- Long term capacity and future requirements across the area
- The Essex guideline for a new stand-alone library is that it should serve a discrete community of at least 7,000 people - very few developments will demand a library for itself so there is likely to be a need to 'pool' contributions.
- Where the increase in projected population more than doubles an existing library catchment area, it is likely that a new facility or building will be required: Provision of this space could be as part of a shared community or educational facility for example – and would allow consideration to be made for varying scales of development

### 5.13.4 How the money will be used

Monies may be used to enhance existing service points; work with other County Council, district, voluntary and other services, eg NHS, to establish joint community facilities or, in the case of the largest developments, to build new libraries.

Land acquisition costs are not included although in the case of relocation of library or other services there will/may be an asset which could be sold to contribute towards the costs.

Additional requirements, which may include expansion of existing buildings, and/or furniture, technology and stock, will be directly proportional to the increase in the projected population of the specific area.

### 5.13.5 How the contribution will be calculated

Detailed calculation is based on a number of factors:

- A service requirement of 30m<sup>2</sup> net of public library space per 1000 population, based upon the current model of delivery and found in the MLA advice
- Building costs linked to the RICS BCIS Tender Price Index and new build prices
- Fitting out costs including furniture and technology based upon current fitting out costs of new provision in Essex
- Provision of stock based on the Public Library Standard “Stock level per 1000 population” and average price of new books.

## 5.14 Flood & Water Management and Sustainable Drainage Systems (SuDS)

### 5.14.1 Background

SuDS are a requirement of the NPPF (paragraph 103). Most Local Planning Authorities also require their inclusion in new developments under their local policies in order to meet water quantity, water quality and amenity/biodiversity requirements. As a Lead Local Flood Authority (LLFA), Essex County Council is consulted by local planning authorities in relation to surface water and SuDS proposals put forward in relation to major planning applications.

In addition to the requirement for major planning applications to provide on-site SuDS, there is an overriding need to ensure that there is a viable option for the maintenance of sustainable drainage systems to ensure that SuDS can be implemented and do not fall into disrepair which may result in flooding. As SuDS are holistic systems that often cater for private and highway water within the same features, Essex County Council position is to adopt SuDS only in exceptional circumstances, and this will be subject to SuDS being designed and built to the required standard and the long term maintenance addressed through an up-front commuted sum payment. SuDS design should accord with the Essex County Council SuDS Design Guide. Agreement to adopt will be on a voluntary basis for the developer and ECC. Some of the Local Planning Authorities have reflected the SuDS Design Guide in their own Supplementary Planning Document adoption statements.

Where this exception SuDS adoption policy does not apply, local planning authorities will work with the developers to identify an alternative SuDS adoption body which could include a Water Authority or private management company. The local planning authority will work with the developer to secure the long term maintenance of SuDS through a combination of planning obligation, planning condition and commuted sum payment guaranteeing their long term maintenance. Whichever SuDS maintenance option is chosen by the developer, early engagement with the relevant adoption organisation and the local planning authority is essential to achieving a successful outcome.

As a Lead Local Flood Authority, Essex County Council must develop, maintain, apply and monitor a strategy for local flood risk management in its area consistent with national strategies and in accordance with the Flood Risk Regulations 2009 and the Flood and Water Management Act 2010 Paragraphs 9 (1), (2), (3) and (4). Surface



Water Management Plans (SWMP) provide the platform for the identification of Critical Drainage Areas (CDA), a suite of feasible measures to reduce the flood risk in the CDAs and preliminary costs of delivering these measures. Therefore in accordance with NPPF (paragraph 100), Local Plans should be supported by SFRA taking into account advice from risk management authorities such as LLFAs. Essex County Council has taken the approach of undertaking SWMPs for all the District, Boroughs and City Councils in Essex and views these as the most up-to-date body of evidence about surface and ordinary water course flood risk. The SWMP documents should constitute a significant component of the evidence needed by LPAs when negotiating Section 106 contributions from developers in order to mitigate the impacts of developments on the level of flood risk in a CDA. They should also inform any Infrastructure Baseline Studies and Infrastructure Delivery Plans and facilitate setting up a CIL charging schedule to provide flood defence infrastructure in order to accommodate new developments.

#### 5.14.2 Commuted sums for SuDS

Whilst whole life maintenance costs of SuDS features are accepted by the industry to be comparable to those of conventional drainage, the routine maintenance is often more frequent/expensive and the replacement costs less frequent/expensive. The commuted sum should reflect this short term increase in cost. As vegetative SuDS features are expected to last longer before requiring replacement there is also an argument that the commuted sum fee period should be extended to include one replacement. Therefore, Essex County Council will require a 30 year commuted sum maintenance payment, to include the replacement cost of SUDS infrastructure. In addition, the County Council will be publishing separately the specification it will apply in those instances where the Council adopt SuDS. The fees and charges will increase annually in line with inflation and/or the actual cost of delivering the service.

#### 5.15.1 Heritage Assets

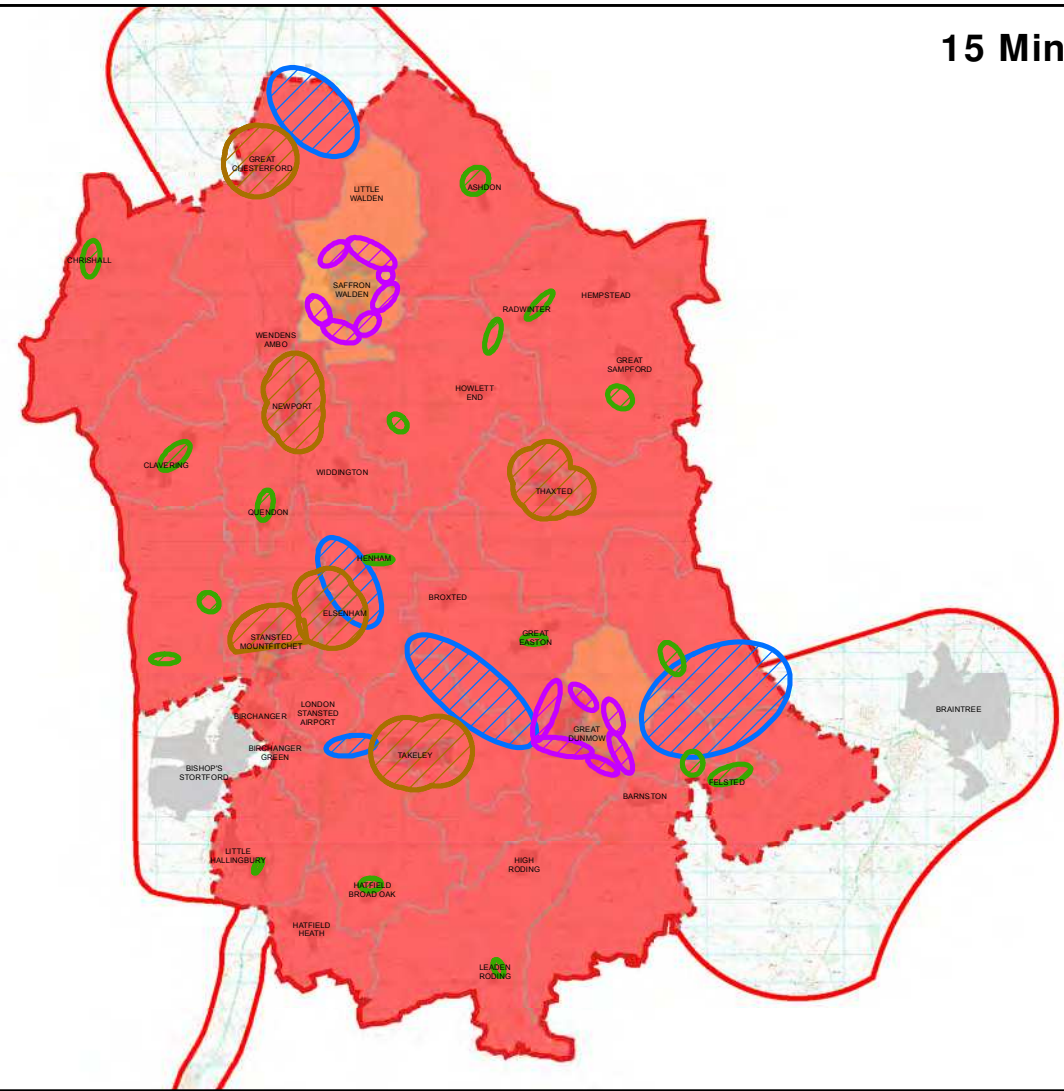
Essex County Council and Districts are involved in the protection of heritage assets within the county, Place Services provides historic environment advice to some Essex local authorities and to the County Council itself. Where developments will directly affect heritage assets, which are of national or regional significance, there will be potential for positive management and enhancements to be put in place and defined within a section 106 agreement.



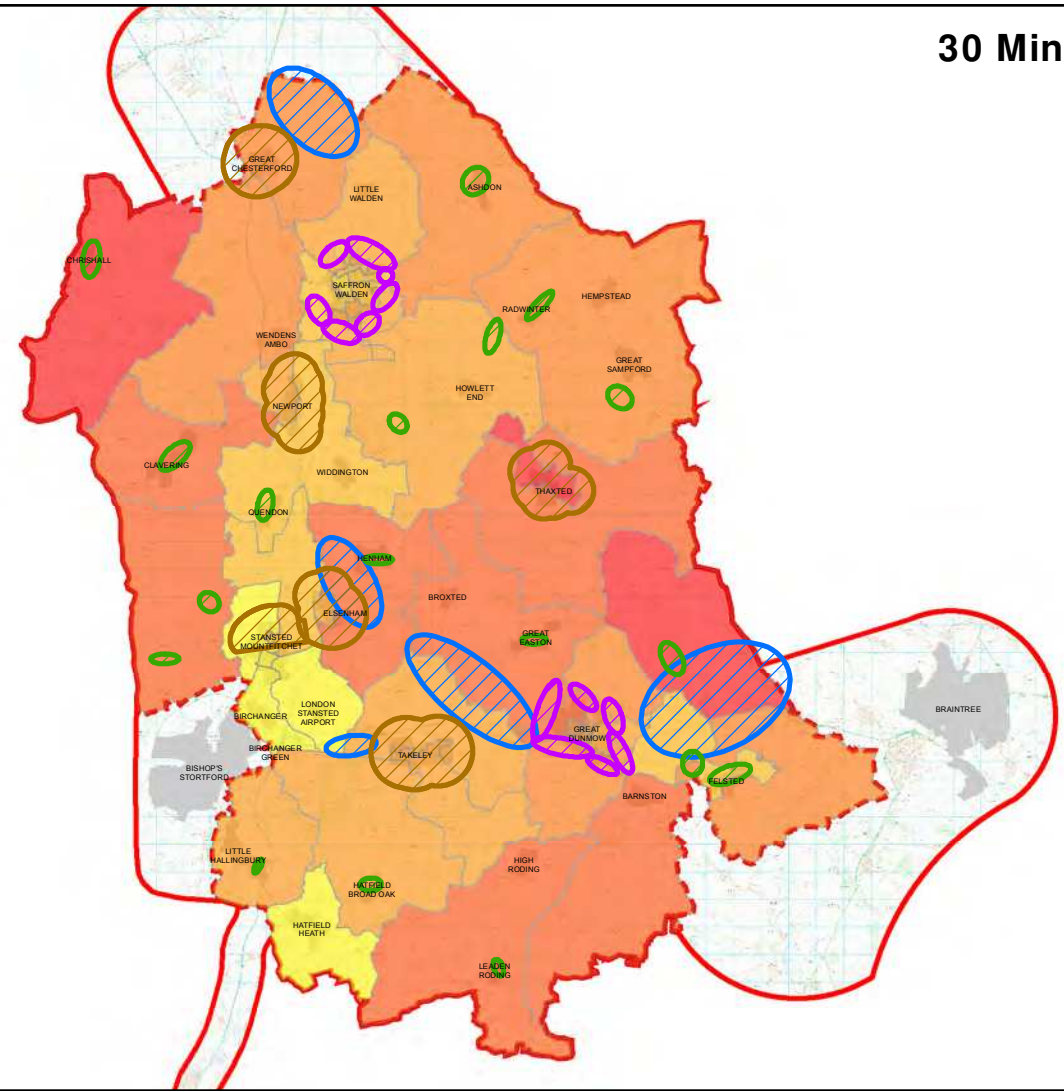
## Appendix G – Plots Depicting Access to 'Low Influence' Services



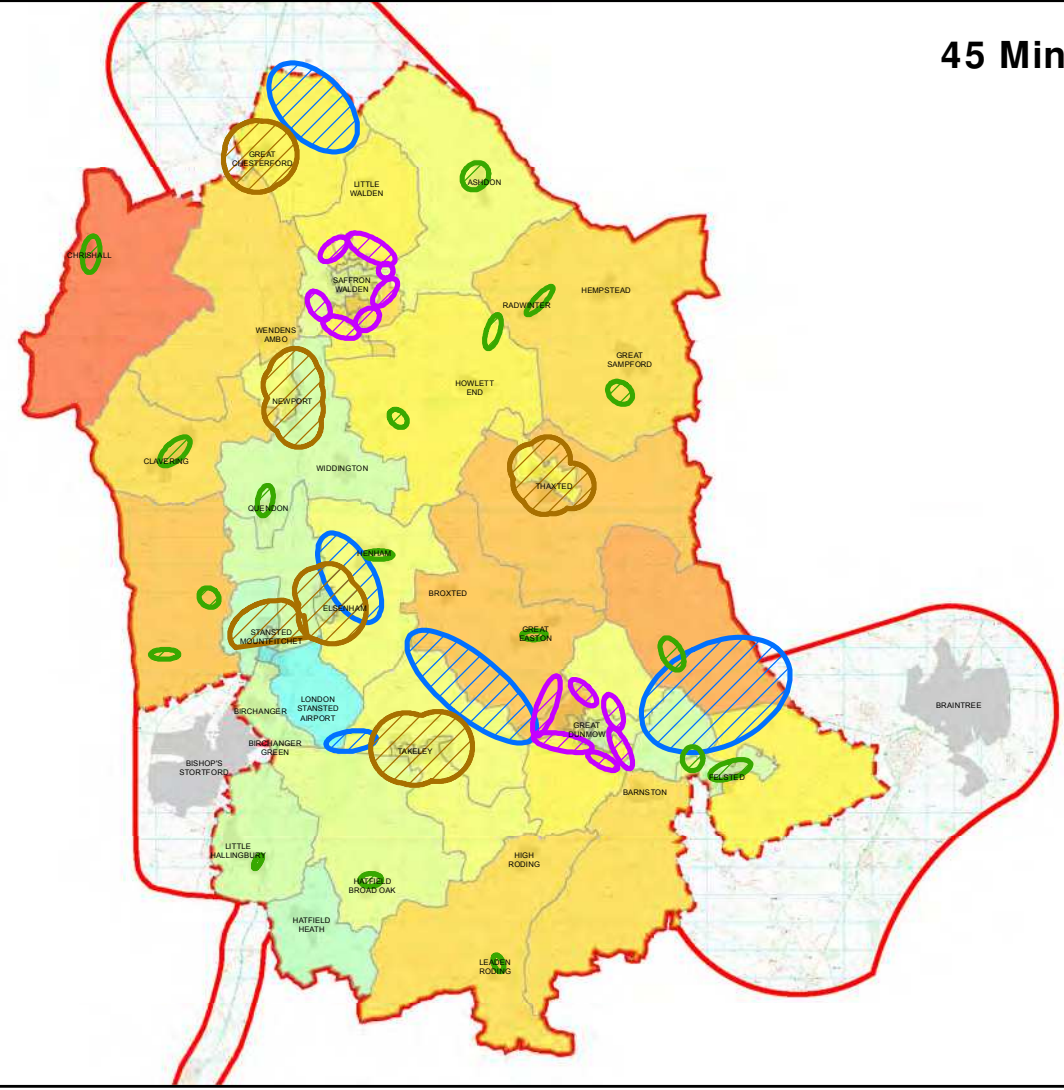
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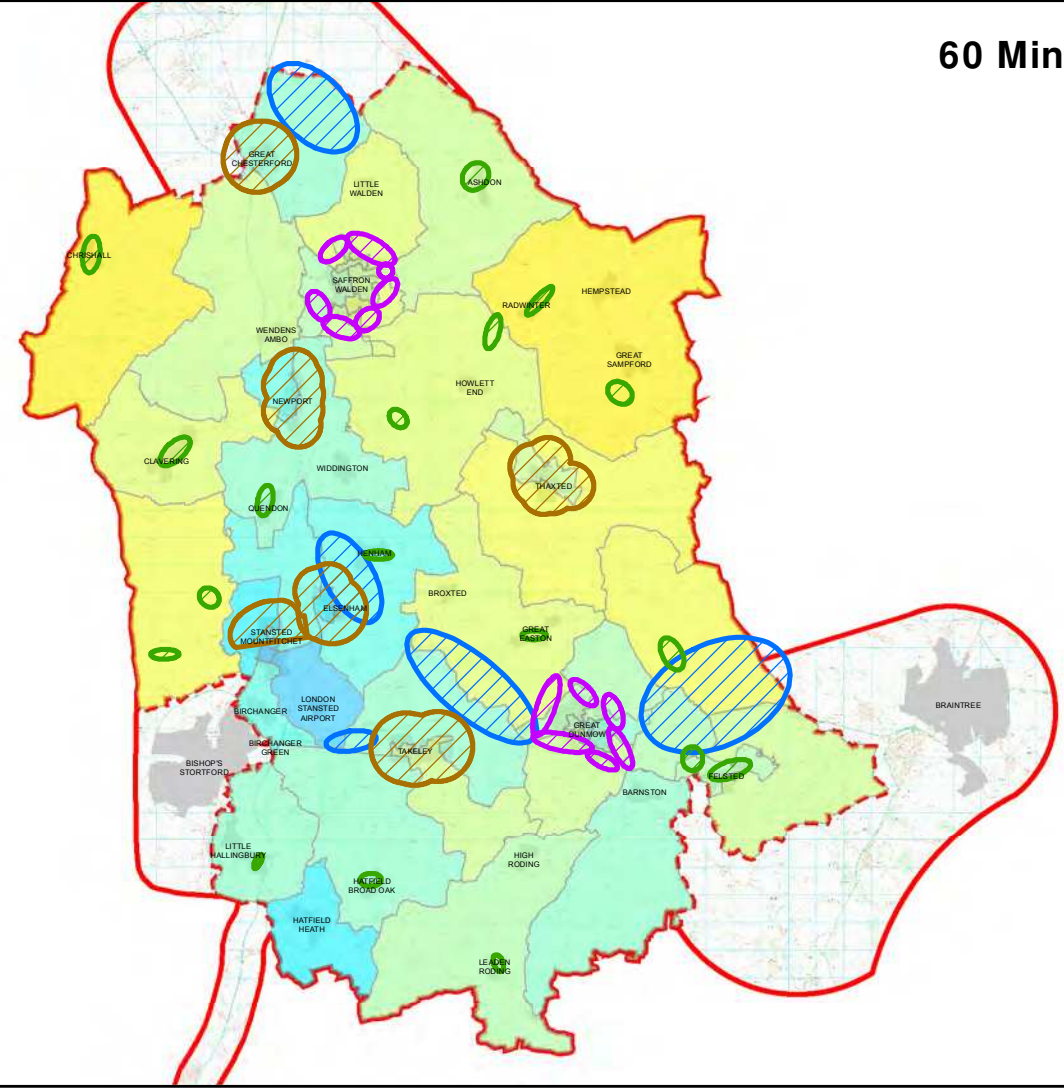
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60 Minutes



**Legend**

- Study Area
- Uttlesford District
- Area of Search (AoS)**
- Key Villages AoS
- New Settlement AoS
- Towns AoS
- Type A Village AoS
- % of Destinations Accessible**
- 0% - 5%
- 6% - 10%
- 11% - 15%
- 16% - 20%
- 21% - 25%
- 26% - 30%
- 31% - 35%
- 36% - 40%
- 41% - 45%
- 46% - 50%
- 51% - 55%
- 56% - 60%
- 61% - 65%
- 66% - 70%
- 71% - 75%
- 76% - 80%
- 81% - 85%
- 86% - 90%
- 91% - 95%
- 96% - 100%

Note: Destinations identified as Low Influence are Town Centres, Employment and Hospitals

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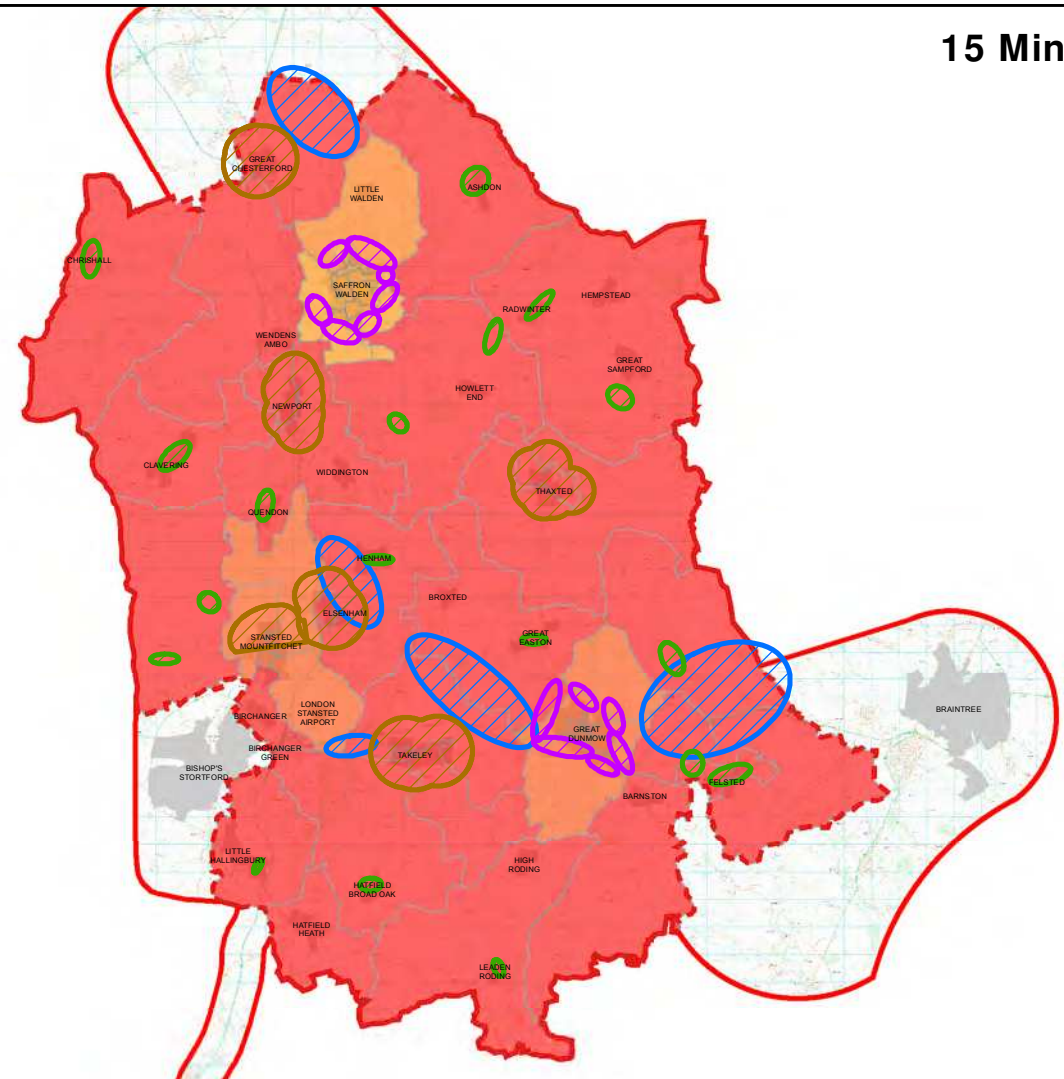
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Drawing Title:  
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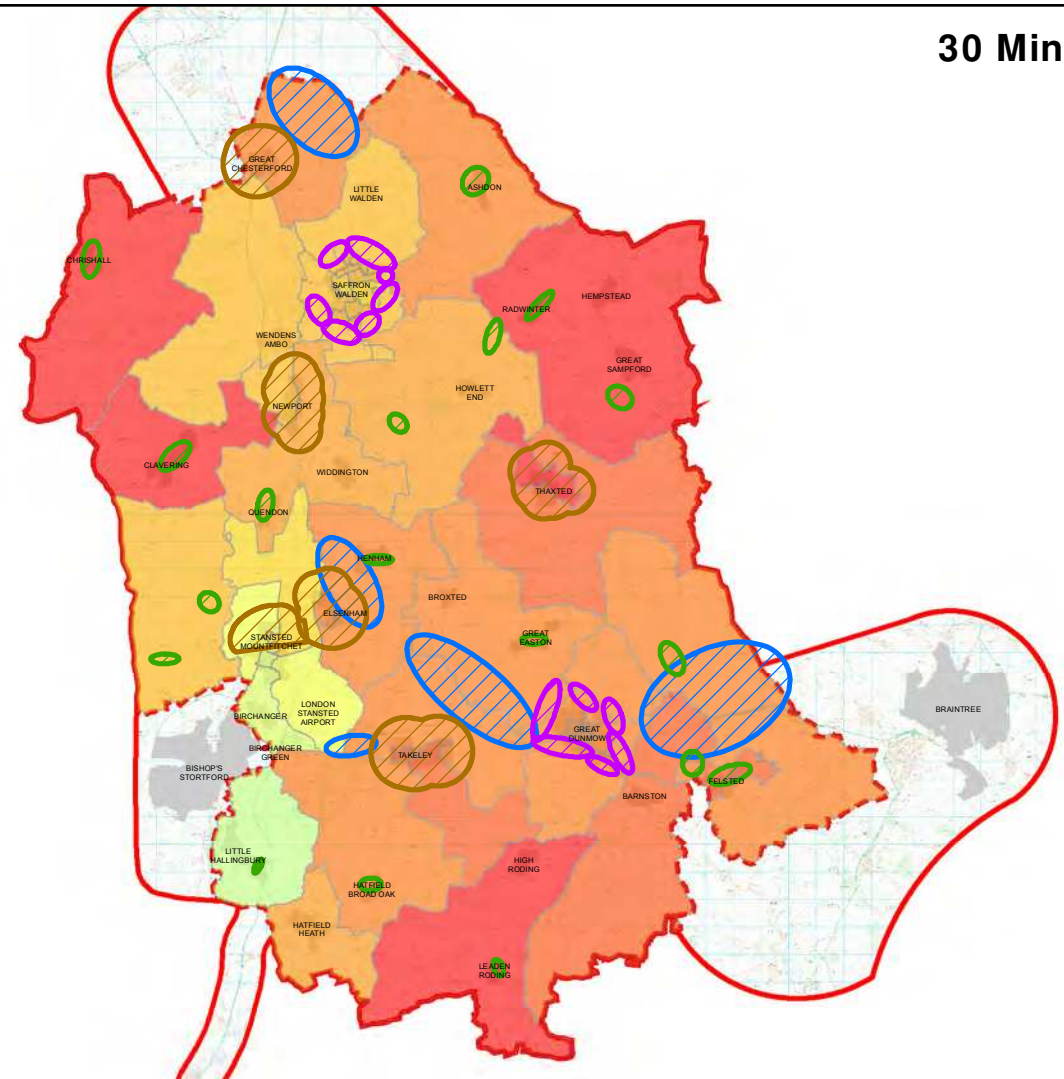
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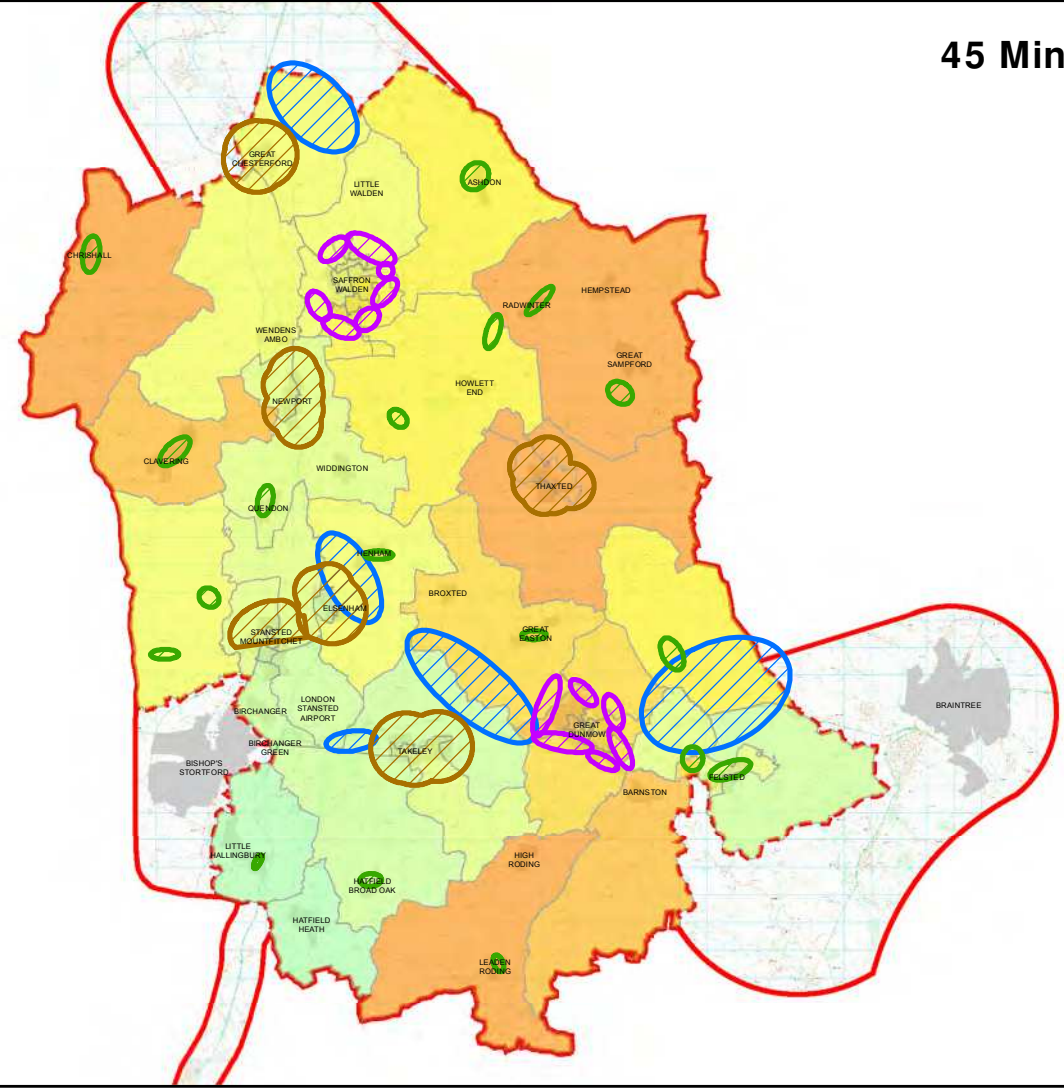
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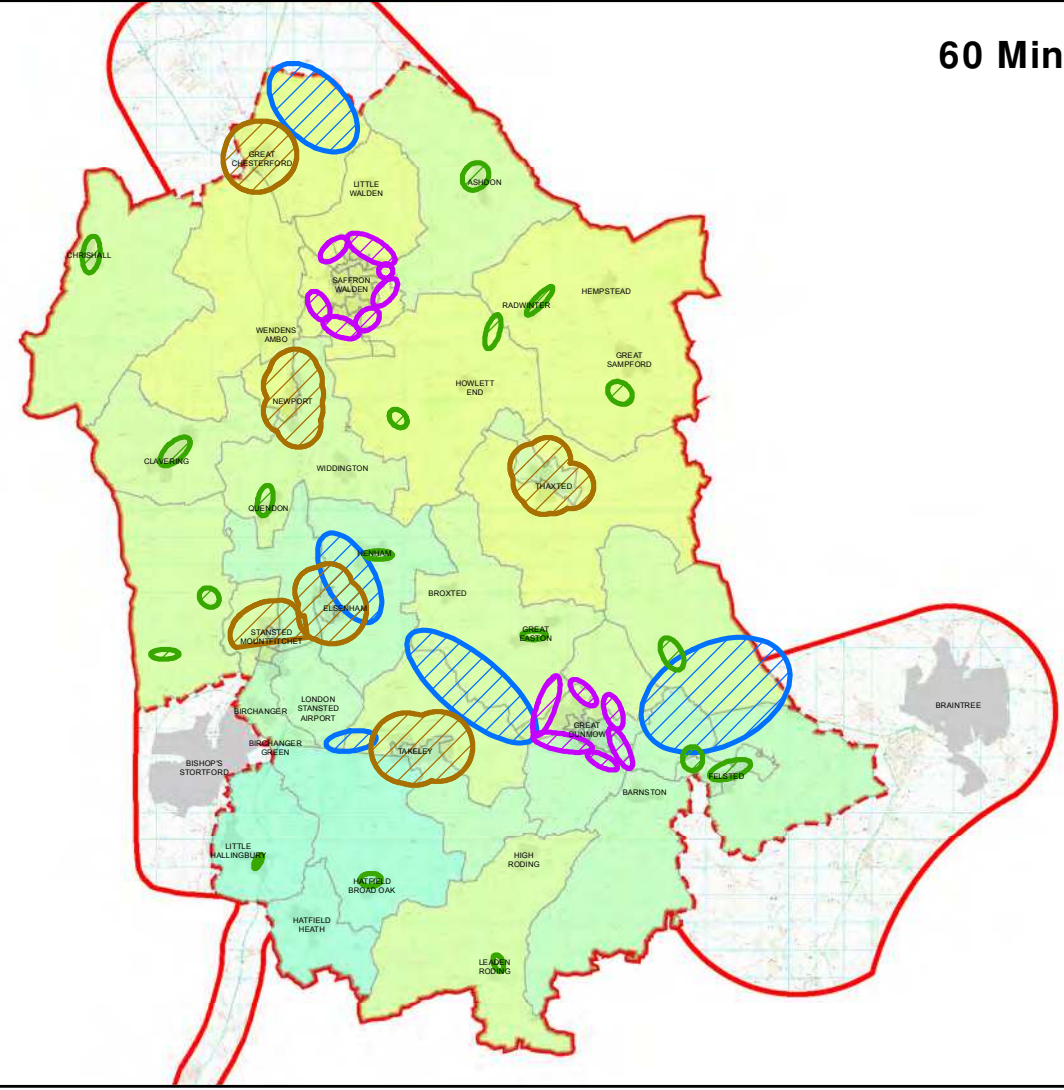
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Legend

- Study Area
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- Key Villages AoS
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- 46% - 50%
- 51% - 55%
- 56% - 60%
- 61% - 65%
- 66% - 70%
- 71% - 75%
- 76% - 80%
- 81% - 85%
- 86% - 90%
- 91% - 95%
- 96% - 100%

Note: Destinations identified as Low Influence are Town Centres, Employment and Hospitals

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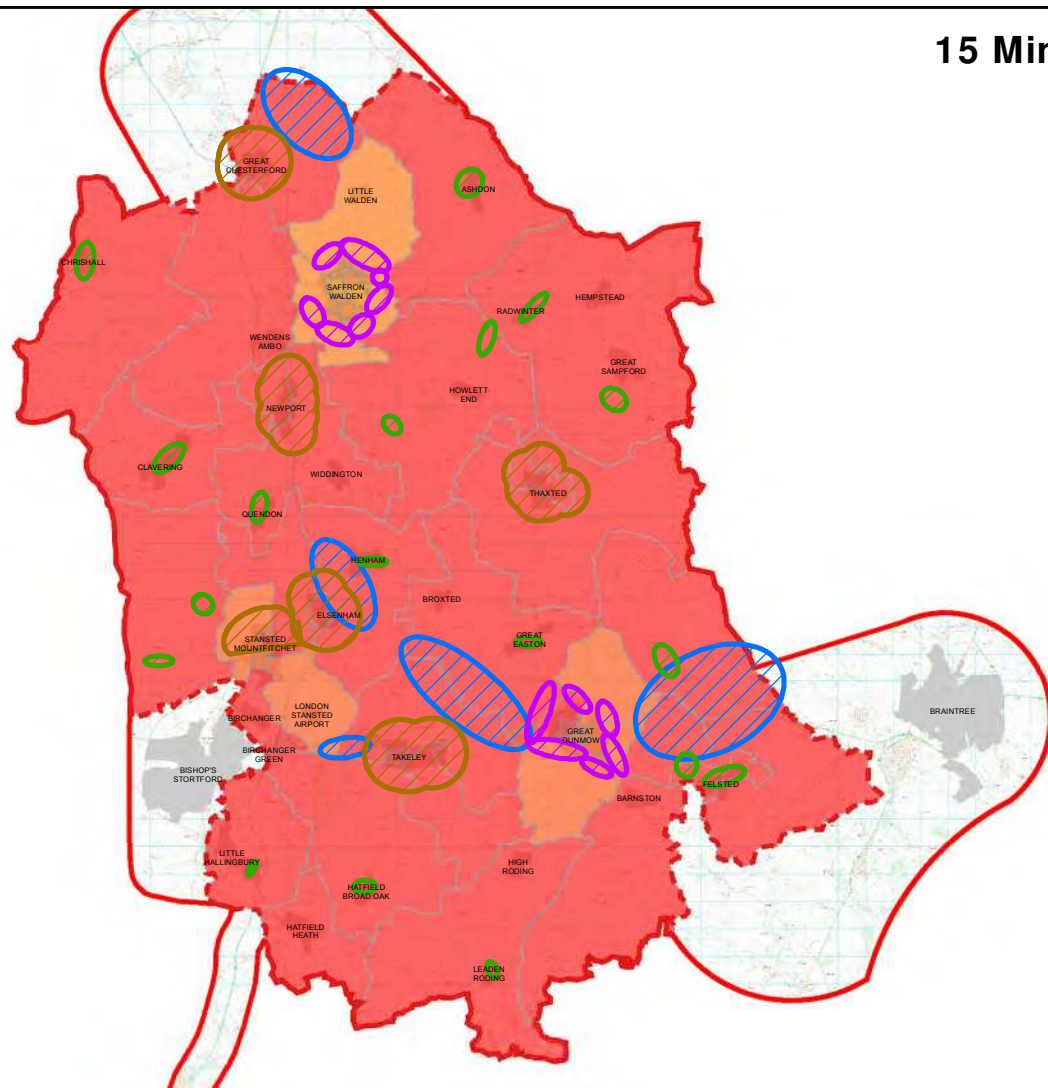
Project: District-Wide Transport Study

Drawing Title:  
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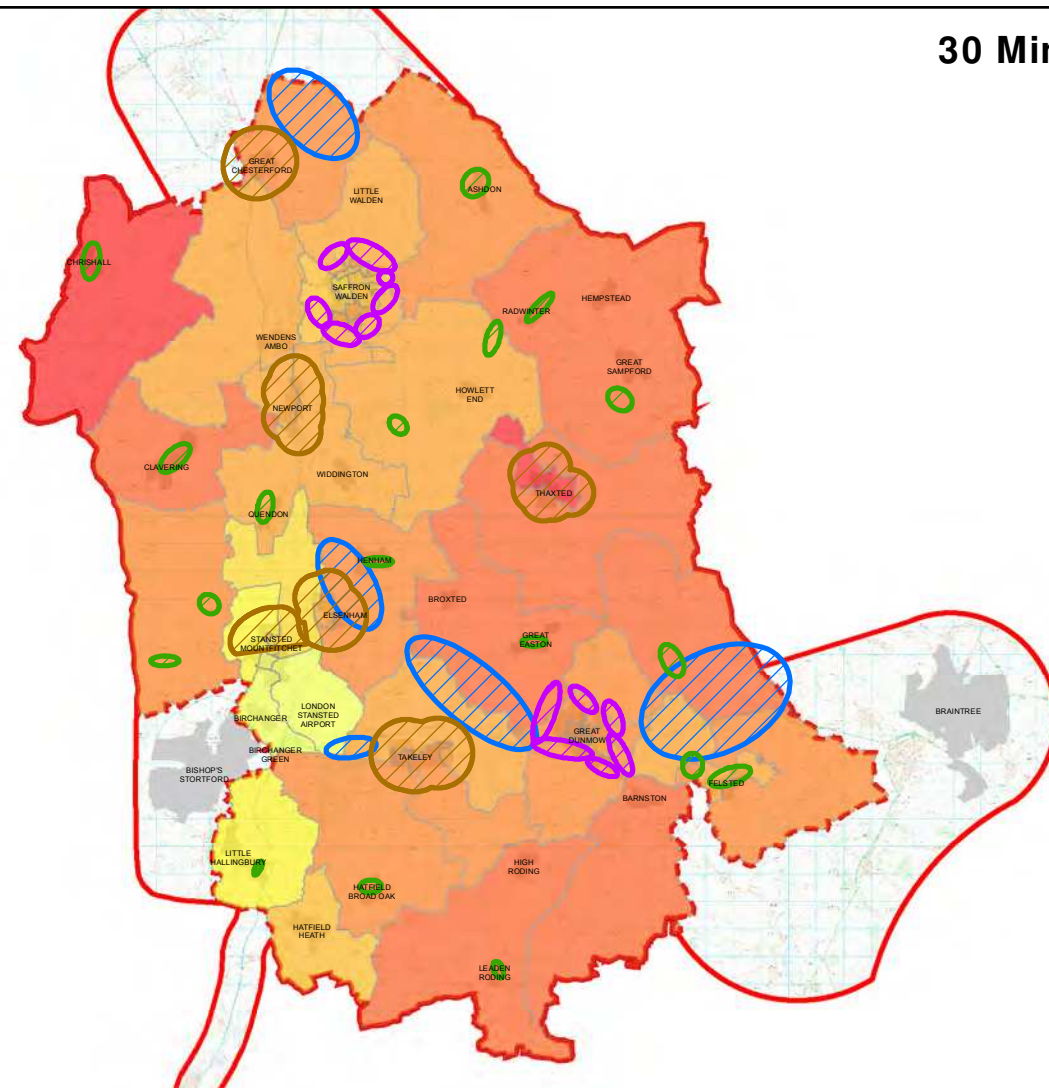
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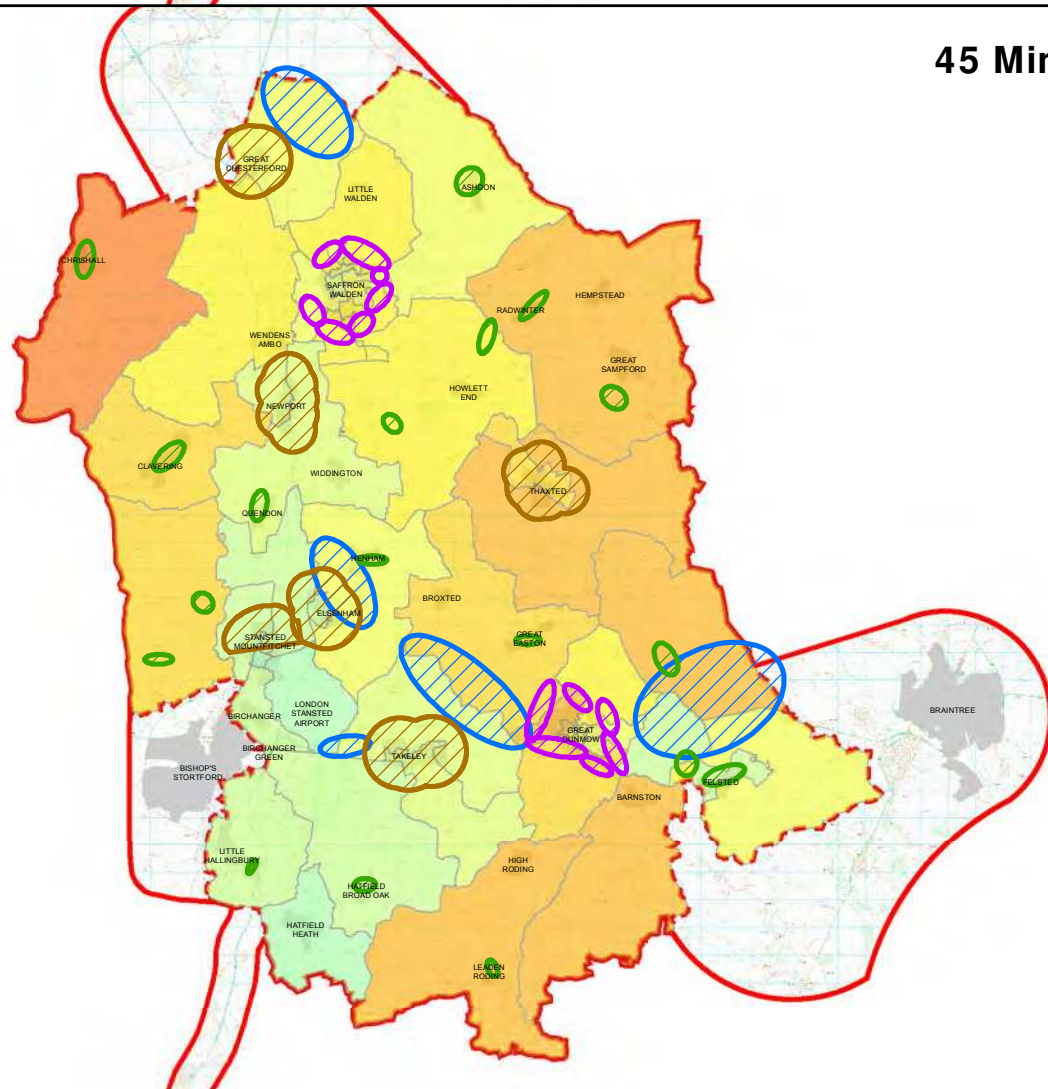
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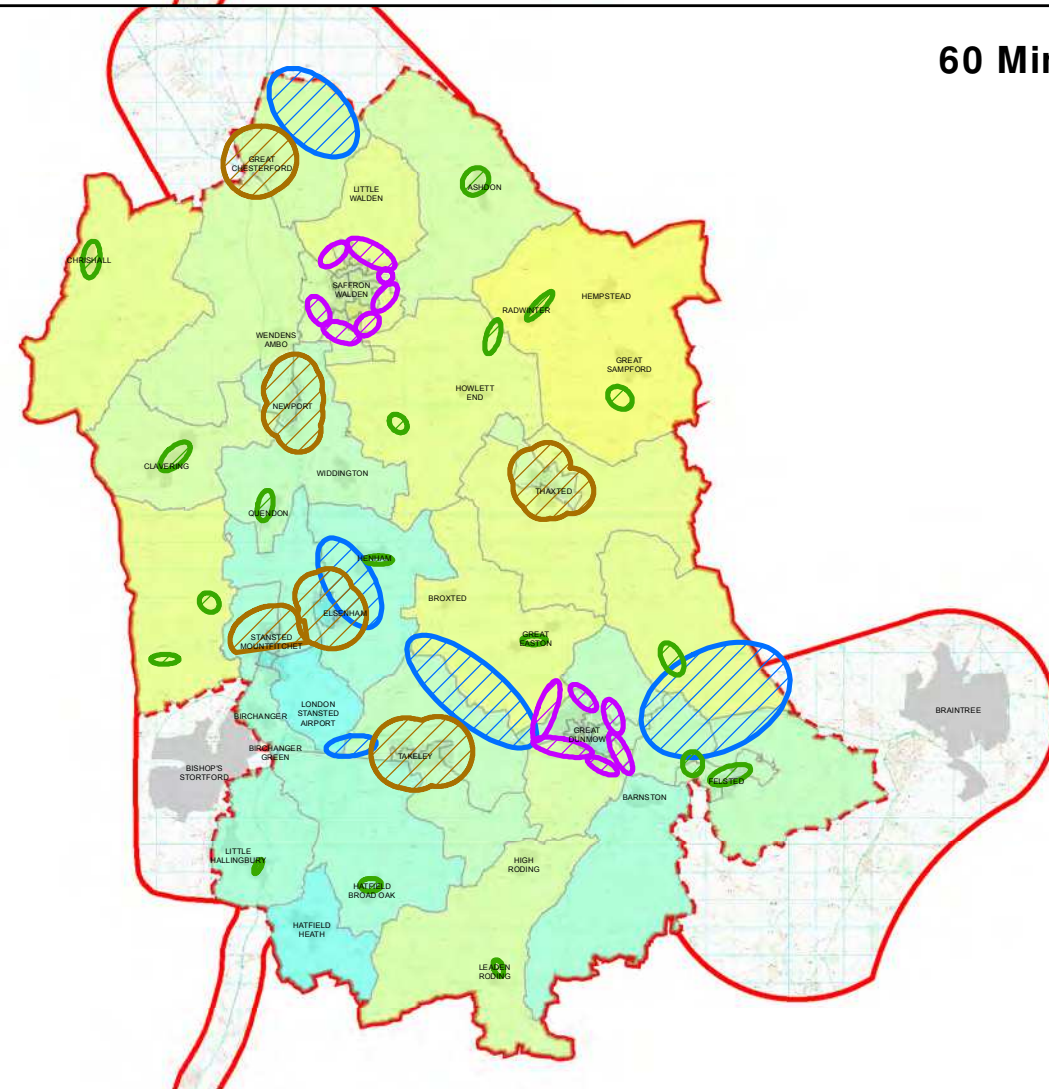
30 Minutes



45 Minutes



60 Minutes



**Legend**

Study Area

Uttlesford District

**Area of Search (AoS)**

Key Villages AoS

New Settlement AoS

Towns AoS

Type A Village AoS

**% of Destinations Accessible**

0% - 5%

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11% - 15%

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51% - 55%

56% - 60%

61% - 65%

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71% - 75%

76% - 80%

81% - 85%

86% - 90%

91% - 95%

96% - 100%

Note: Destinations identified as Low Influence are Town Centres, Employment and Hospitals

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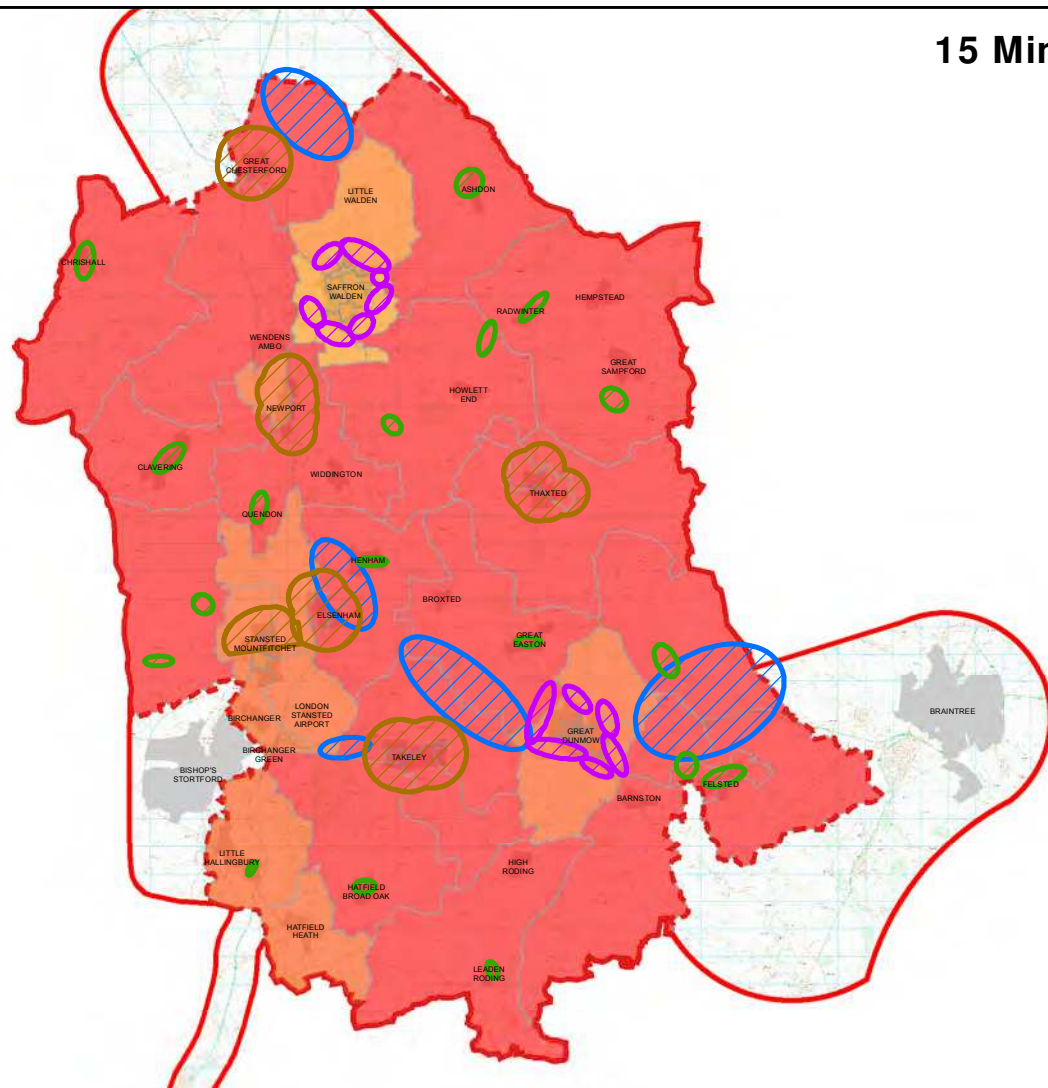
Project:  
District-Wide Transport Study

Drawing Title:  
Percentage of Low Influence Accessibility  
Destinations Available by Sustainable  
Modes within Maximum Journey Times

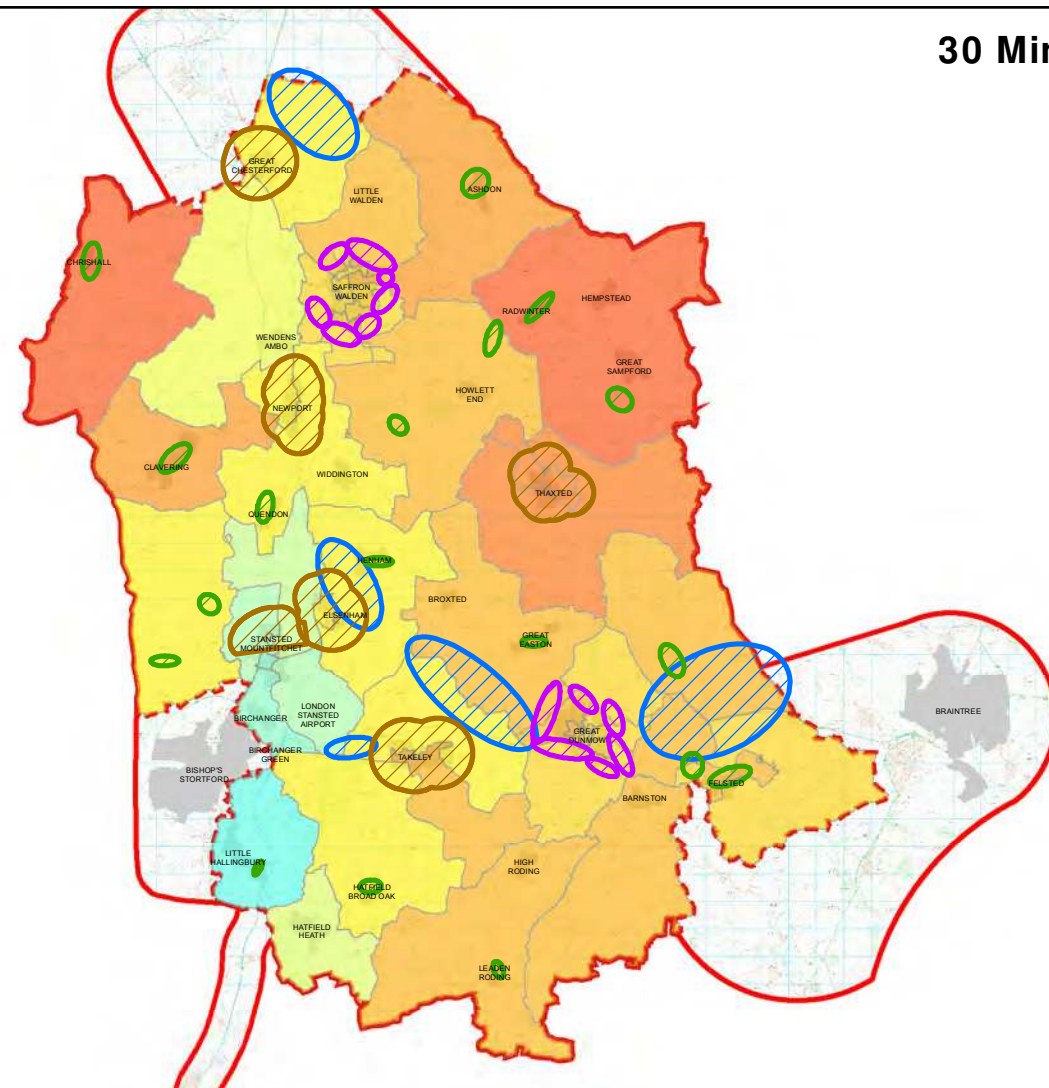
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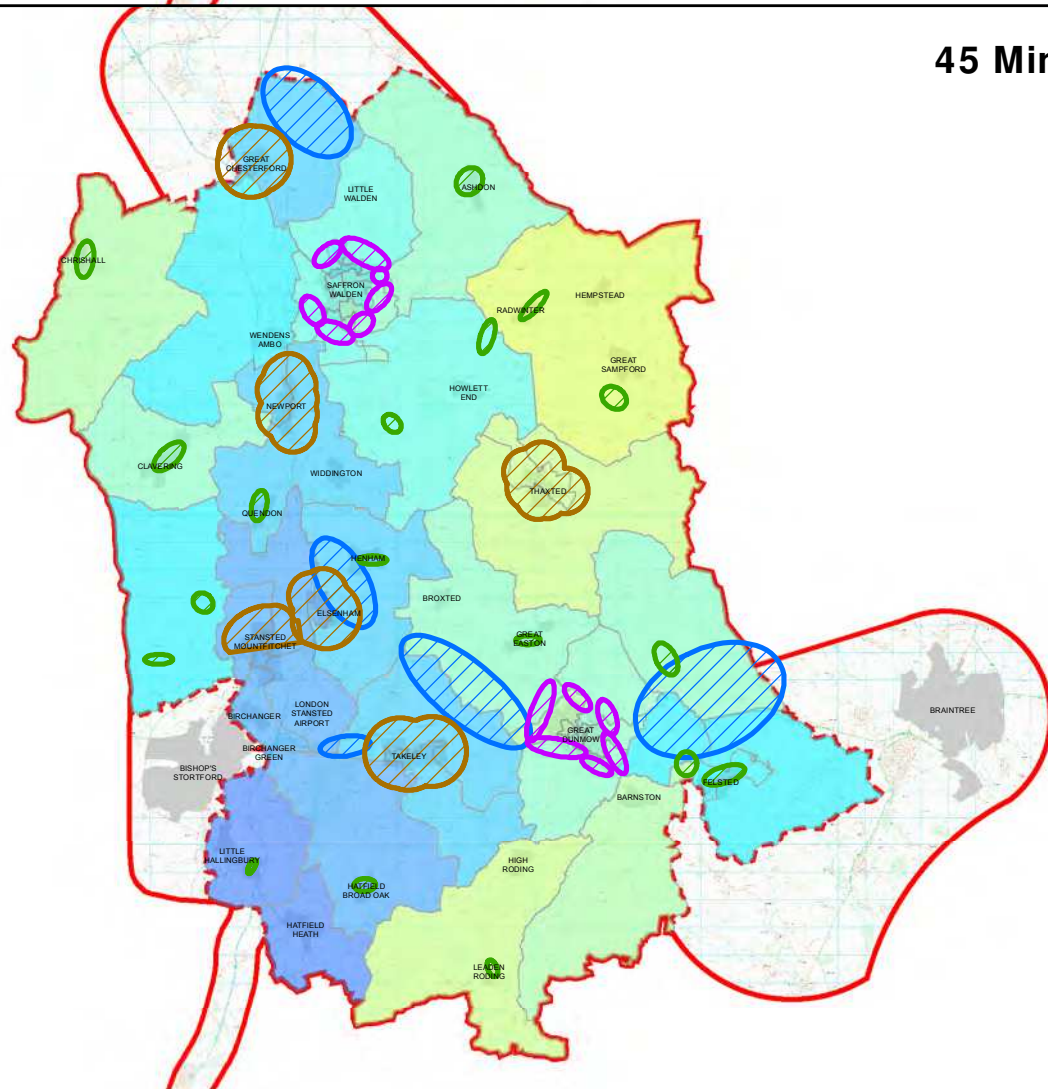
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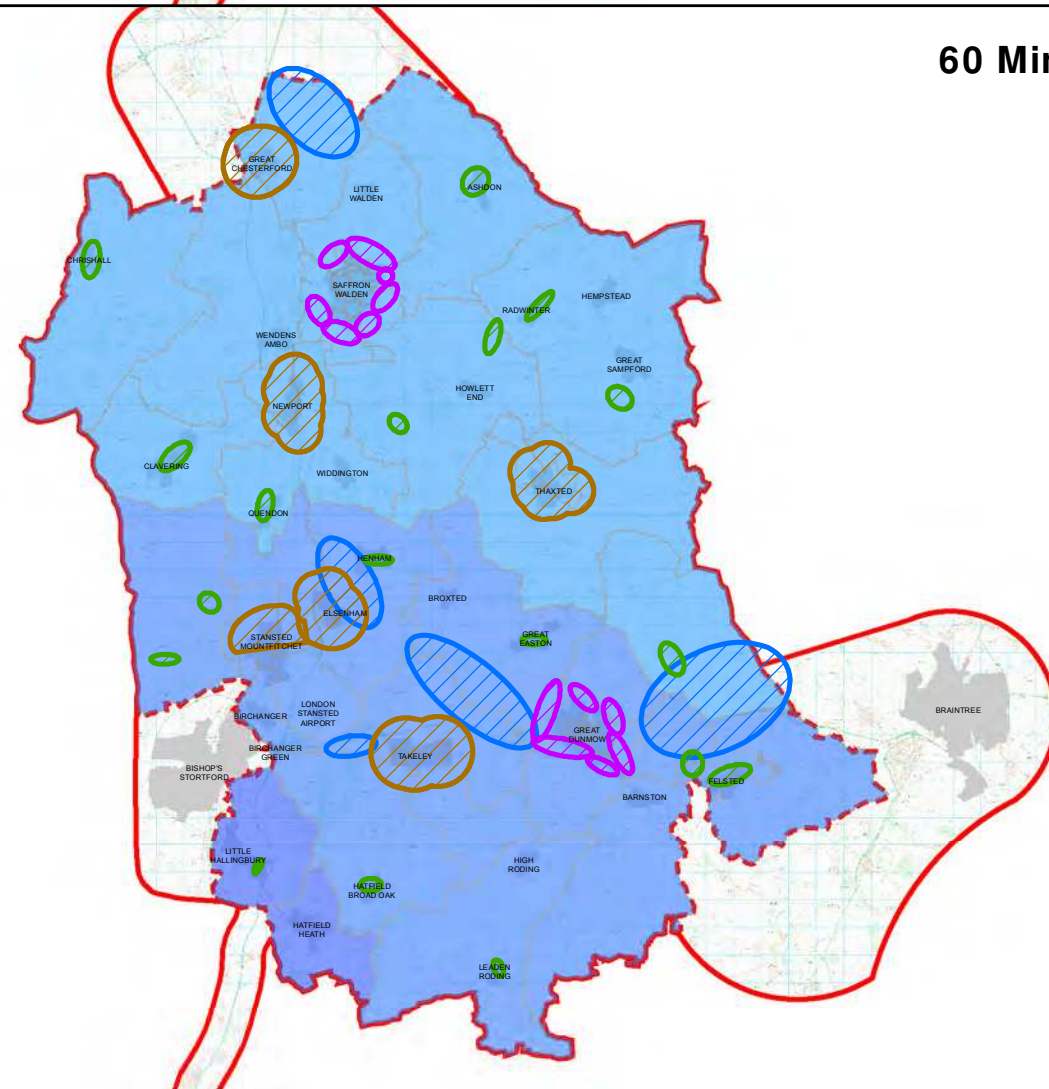
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45 Minutes



60 Minutes



Legend

- Study Area
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- Area of Search (AoS)**
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- New Settlement AoS
- Towns AoS
- Type A Village AoS

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Note: Destinations identified as Low Influence are Town Centres, Employment and Hospitals

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Project: District-Wide Transport Study

Drawing Title: Percentage of Low Influence Accessibility Destinations Available by Car within Maximum Journey Times

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## **Appendix D – TN4 – Uncertainty Log**



## Uttlesford District Council

### District Wide Transport Study

#### Technical Note 4 – Uncertainty Log Methodology

##### 1 Introduction

- 1.1 This note summarises the methodology used to compile the Uncertainty Log for the Transport Study.
- 1.2 The Uncertainty Log has been produced in accordance with DfT Transport Analysis Guidance (TAG) Unit M4 and is a register of known proposed developments and transport infrastructure within the study area and adjacent areas.
- 1.3 Each log entry provides details of an individual development together with an assumed likelihood that the development will proceed. TAG standard definitions of likelihood have been applied which use the following four categories:
  - **Near Certain:** The outcome will happen or there is a high probability that it will happen. (e.g. developments under construction, sites with planning permission)
  - **More Than Likely:** The outcome is likely to happen but there is some uncertainty. (e.g. sites where a planning application has been submitted or is imminent)
  - **Reasonably Foreseeable:** The outcome may happen, but there is significant uncertainty. (e.g. allocated sites)
  - **Hypothetical:** There is considerable uncertainty whether the outcome will ever happen. (e.g. possible development sites that are currently unallocated)
- 1.4 In accordance with TAG guidance all developments categorised as 'Near Certain' or 'More Than Likely' are included in the VISUM model for the Reference Case scenario. This is known as the Core Scenario, and represents the most likely scenario.
- 1.5 All developments that fall into the Core Scenario described above have been included in the modelled Reference Case. No sites were excluded due to the scale or size of development (i.e. smaller development sites were not excluded).

##### 2 Land-Use Developments within Uttlesford District

- 2.1 An uncertainty log already existed for Uttlesford District which was created by Essex County Council (ECC) for a previous study. The planning department at Uttlesford District Council (UDC) therefore updated that log for the purposes of this study.
- 2.2 Checks were undertaken to ensure consistency between the updated Uncertainty Log for Uttlesford and information supplied by UDC for assessment in the study. It was found that the 'near certain' and 'more than likely' developments corresponded well with committed development totals previously provided by UDC. Many of the 'reasonably foreseeable' developments also corresponded well to development allocations included in the previous draft Local Plan.





### 3 Stansted Airport

- 3.1 Stansted Airport has a current throughput of about 21.5 million passengers per annum (mppa) and planning permission to expand to 35mppa. The airport is forecast to be approaching its current planning capacity of 35mppa within the next 10 years.
- 3.2 Essex County Council provided forecast traffic flow increases in the AM and PM peaks between the 2016 base year and 2033 to/from the airport assuming expansion up to the consented 35 mppa. This data was taken from a separate study that is currently being prepared by the County Council into the transport effects of future expansion at the airport.
- 3.3 The airport flows were supplied in the form of model zones representing the airport with AM/PM peak hour flows between the zones and the wider highway network. This information was incorporated into the VISUM model that is discussed in Technical Note 6 and taken into account as committed development in the Core Scenario.

### 4 Land-Use Developments Outside the District

- 4.1 For the purposes of the study it was agreed with UDC and ECC that the Uncertainty Log should cover the following authority areas adjacent to Uttlesford:
  - South Cambridgeshire
  - Braintree
  - Chelmsford
  - Epping Forest
  - Harlow
  - East Hertfordshire
- 4.2 It was agreed that the following neighbouring authority areas could be excluded from the Uncertainty Log because they do not directly border Uttlesford or have major road connections with the district (see **Figure 1**):
  - Cambridge City
  - St Edmundsbury
  - North Hertfordshire
- 4.3 Development in these areas was however taken into account as part of the TEMPRO growth assumptions applied in the modelling (see TN6 – Modelling Methodology).
- 4.4 A first draft of the Uncertainty Log for adjacent authority areas was produced using data from a variety of sources including relevant planning strategy documents and data collected in support of ECC's M11J7a SATURN model as the modelled area for this scheme overlaps several Districts adjacent to Uttlesford.
- 4.5 The draft Uncertainty Log was then circulated to the planning departments of all of the local authorities listed in paragraph 3.1 above who were asked to provide input to the Uncertainty Log for their respective areas.
- 4.6 Although inputs were not requested from Cambridge City Council (because it doesn't border Uttlesford) some sites within South Cambridgeshire straddle the border with Cambridge City. For this reason model zones in Cambridge have been allocated residential development and so Cambridge City appears in the following summary tables.



## 5 Summary of the Uncertainty Log Core Scenario Development

- 5.1 The housing and employment development numbers identified in the Uncertainty Log Core Scenario are presented in **Table 1** and **2** below.

**Table 1 – District Residential Dwelling Totals**

| District             | Uncertainty Log Dwellings |
|----------------------|---------------------------|
| Uttlesford           | 6,706                     |
| Braintree            | TEMPRO (See Note)         |
| Cambridge City       | 4,488                     |
| Chelmsford           | 3,472                     |
| East Hertfordshire   | 3,792                     |
| Epping Forest        | 457                       |
| Harlow               | 3,725                     |
| South Cambridgeshire | 7,927                     |

**Note:** Where no data was available TEMPRO growth was applied.

**Table 2 – District FTE Job Totals**

| District             | Uncertainty Log FTE Jobs |
|----------------------|--------------------------|
| Uttlesford           | 3,664                    |
| Braintree            | TEMPRO (See Note)        |
| Cambridge City       | -1,033 <sup>1</sup>      |
| Chelmsford           | TEMPRO (See Note)        |
| East Hertfordshire   | TEMPRO (See Note)        |
| Epping Forest        | 1,215                    |
| Harlow               | 8,531                    |
| South Cambridgeshire | 11,568                   |

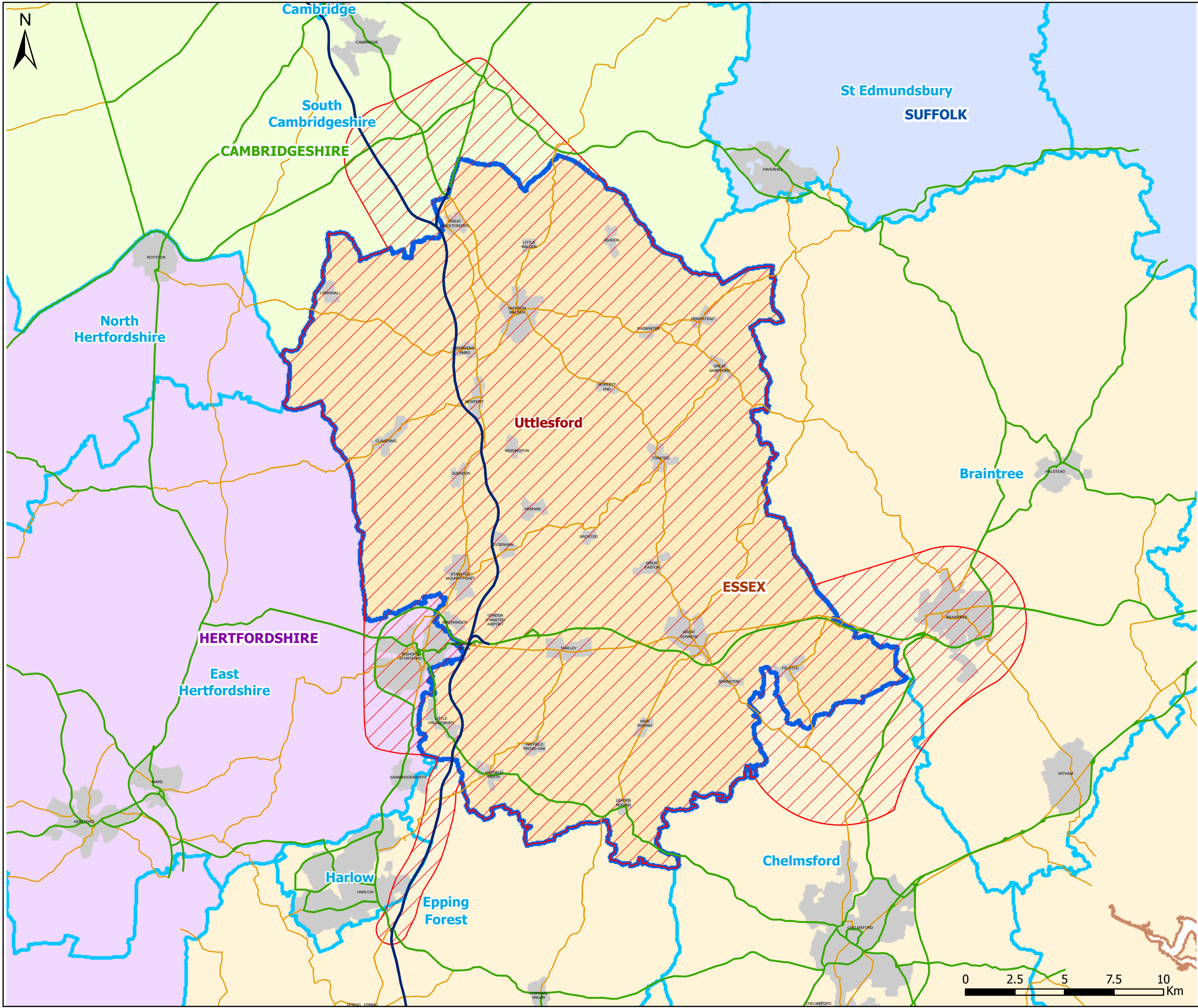
**Note:** Where no data was available TEMPRO growth was applied.

- 5.2 Residential development is expressed in terms of dwelling numbers and employment development in terms of numbers of Full Time Equivalent (FTE) jobs which were estimated from development floor areas using employee densities sourced from the Homes and Communities Agency's Employment Density Guide 3rd Edition (see TN6 – Modelling Methodology for further details).
- 5.3 A copy of the full Uncertainty Log can be found in **Appendix A**.

<sup>1</sup> The negative FTE job numbers relate to development proposals to convert employment uses to other, non-employment uses (e.g. residential)



## Figures



### Legend

- Study Area
- Main Urban Areas
- Uttlesford District
- Surrounding District Boundaries

### Counties

- Cambridgeshire
- Essex
- Hertfordshire
- Suffolk

### Road Network

- Motorway
- A Road
- B Road

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| REV | DESCRIPTION | BY | CHK | APP | DATE |
|-----|-------------|----|-----|-----|------|
|     |             |    |     |     |      |

Client:



**Uttlesford District Council**

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Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 1  
 Proposed Study Area

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | JJC    | 07/12/15 | SB          | 07/12/15 | ASG      | 07/12/15 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 001         | -        |          |          |





## Appendices



## Appendix A – Uncertainty Log

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION  | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|--|------------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| East Herts | 21      | 165          | The Mill Site (Policy BISH2)   | Hypothetical           | Mixed Use Development    |   | Bishop's Stortford   | 549019  | 221081   |                        |                        |           |                |
| East Herts | 22      | 168          | The Good's Yard Site (Policy BISH3)  | Reasonably Foreseeable | Residential              | 450 Dwellings and retail / Employment Mixed Use                             | Bishop's Stortford   | 549208  | 220753   | 200                    | 450                    |           |                |
| East Herts | 24      | 164          | Reserve Secondary School Site, Hadham Road (Policy BISH5) Planning permission granted for school on ASR (BISH8 site) so dwellings can be assumed | Reasonably Foreseeable | Residential              | 247 dwellings   | Bishop's Stortford   | 547434  | 221729   | 130                    | 247                    |           |                |
| East Herts | 25      | 166          | Site East of Manor Links (Policy BISH6)  | Reasonably Foreseeable | Residential              | 75 Dwellings  | Bishop's Stortford   | 550334  | 221369   | 75                     | 75                     |           |                |
| East Herts | 26      | 169          | Land South of Bishop's Stortford (Policy BISH7)  | Reasonably Foreseeable | Residential              | 750 Dwellings (and mixed use) + Primary School + 4-5ha business pk          | Bishop's Stortford   | 548414  | 218964   | 300                    | 750                    | 16668     | B1 Office      |
| East Herts | 27      | 164          | Land West of Hoggate's Wood (Policy BISH8). Access off new rbt on Hadham Rd  | Near Certain           | Residential              | 857 Dwellings now have detailed planning permission, plus 2 primary schools | Bishop's Stortford   | 547589  | 222447   | 857                    | 857                    |           |                |
| East Herts | 28      | 164          | Land Between Hoggate's Wood and Farnham Road (Policy BISH8)  | Reasonably Foreseeable | Residential              | 1250 - 1500 Dwellings + up to 21k m2 Employment; new 6FE secondary school   | Bishop's Stortford   | 548414  | 222756   | 0                      | 1343                   | 8400      | B1 Office      |
| East Herts | 29      | 165          | Land East of Farnham Road (Policy BISH8)   | Reasonably Foreseeable | Residential              | 329 Dwellings   | Bishop's Stortford   | 549271  | 223173   | 260                    | 329                    |           |                |
| East Herts | 30      | 169          | Bishop's Stortford High School Site, London Road   | Reasonably Foreseeable | Residential              | 220   | Bishop's Stortford   | 548849  | 219806   | 0                      | 220                    |           |                |
| East Herts | 33      | 172          | Land North of West Road (Policy SAWB2)   | Reasonably Foreseeable | Residential              | 125 Dwellings   | Sawbridgeworth       | 547179  | 215513   | 125                    | 125                    |           |                |
| East Herts | 35      | 178          | Land in Mead Lane Area (Policy HERT2)  | Reasonably Foreseeable | Residential              | 193 Dwellings   | Hertford             | 533192  | 213045   | 193                    | 193                    |           |                |
| East Herts | 36      | 171          | Land North of Welwyn Road (Policy HERT3)   | Reasonably Foreseeable | Residential              | 300 Dwellings   | Hertford             | 530068  | 213726   | 300                    | 300                    |           |                |
| East Herts | 37      | 176          | Land South of Welwyn Road / Thieves Road (Policy HERT3)  | Reasonably Foreseeable | Residential              | 250 Dwellings   | Hertford             | 530758  | 212776   | 250                    | 250                    |           |                |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION                                    | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION   | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|---|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| East Herts | 38      | 175          | Land North of Hertford (Policy HERT4)                 | Reasonably Foreseeable | Residential              | 50 Dwellings   | Hertford             | 532350  | 214377   | 50                     | 50                     |           |                |
| East Herts | 39      | 178          | Land South of Hertford (Policy HERT5)                 | Reasonably Foreseeable | Residential              | 50 Dwellings   | Hertford             | 533060  | 211476   | 50                     | 50                     |           |                |
| East Herts | 41      | 164          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 500 Dwellings (based on 10% uplift in 11 villages) Largest village increases noted below | Various              | 537493  | 224114   | 0                      |                        |           |                |
| East Herts | 42      | 167          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 83 Dwellings   | Puckeridge           | 539040  | 223174   | 40                     | 83                     |           |                |
| East Herts | 43      | 171          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 85 Dwellings   | Watton-at-Stone      | 530611  | 219481   | 45                     | 85                     |           |                |
| East Herts | 44      | 167          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 63 dwellings   | Standon              | 539660  | 222340   | 30                     | 63                     |           |                |
| East Herts | 45      | 170          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 49 Dwellings   | Much Hadham          | 542234  | 219504   | 25                     | 49                     |           |                |
| East Herts | 46      | 163          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 47 Dwellings   | Walkern              | 529750  | 225825   | 25                     | 47                     |           |                |
| East Herts | 47      | 162          | Land East of London Road (Policy BUNT2)               | More than Likely       | Residential              | 316 Dwellings  | Buntingford          | 536525  | 228646   | 316                    | 316                    |           |                |
| East Herts | 48      | 163          | Land West of Ermine Street (Policy BUNT3)             | More than Likely       | Residential              | 180 Dwellings  | Buntingford          | 535609  | 230467   | 180                    | 180                    |           |                |
| East Herts | 49      | 165          | Henderson Development, The Causeway                   | Reasonably Foreseeable | Mixed Use Development    | 100 dwellings, department store, retail units, hotel, cinema and 670 car parking spaces  | Bishop's Stortford   | 548852  | 221505   | 0                      | 97                     |           | Retail         |
| East Herts | 50      | 162          | Land to South of Hare Street Road (Area 1)            | More than Likely       | Residential              | 100 Dwellings  | Buntingford          | 536739  | 229156   | 100                    | 100                    |           |                |
| East Herts | 51      | 162          | Land to South of Hare Street Road (Area 2 & 3)        | Reasonably Foreseeable | Residential              | 180 Dwellings  | Buntingford          | 536739  | 229156   | 180                    | 180                    |           |                |



| DISTRICT            | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION   | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|---------------------|---------|--------------|--|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| East Herts          | 52      | 170          | Western Section (Gilston Park Estate) developed by CPP   | Hypothetical           | Residential              | 1,500 Dwellings  | Harlow               | 542549  | 211995   | 0                      | 1300                   |           |                |
| East Herts          | 53      | 170          | Land North of Harlow: The Gilston Park Estate (Northern Section) developed by Places for People  | Hypothetical           | Residential              | Up to 8,500 Dwellings+ leisure, retail, office, education and healthcare uses  | Harlow               | 543881  | 212415   | 0                      | 2800                   |           |                |
| East Herts          | 54      | 163          | East of Stevenage  | Hypothetical           | Residential              | 600 Dwellings  | Stevenage            | 527144  | 225218   | 300                    | 600                    |           |                |
| Harlow / East Herts | 55      | 204          | A414 Eastwick to Burnt Mill dualling   | Hypothetical           | Highway                  | Dependent on development coming forward, will be required by 2022. A fundamental highway scheme  | Harlow               | 547003  | 209076   |                        |                        |           |                |
| Harlow / East Herts | 57      | 172          | Second Stort Crossing (As part of Gilston Park Estate development); and, depending on location of new crossing (east or west), requisite linkage to A414 | Hypothetical           | Highway                  | Depending on development coming forward, will be required by 2030. Timing needs to be determined, not likely to be viable until ~10k homes | Harlow               | 546161  | 212594   |                        |                        |           |                |
| East Herts          | 58      | 174          | Hertford Regional College, Scott's Road, Ware  | Near Certain           | Education / Residential  | New College and 49 residential dwellings   | Ware                 | 535791  | 213906   | 49                     | 49                     |           |                |
| East Herts          | 59      | 167          | Wallace Land, Buntingford Road (3/10/1522)   | Near Certain           | Residential              | 58 Dwellings (Planning Permission Approved)  | Puckeridge           | 538600  | 223629   | 58                     | 58                     |           |                |
| East Herts          | 60      | 173          | Former Trinity Centre (3/11/0384)  | Near Certain           | Residential              | 81 Dwellings   | Ware                 | 536637  | 215156   | 81                     | 81                     |           |                |
| East Herts          | 62      | 171          | Land South of Station Road (3/11/0872)   | Near Certain           | Residential              | 111 Dwellings  | Watton-at-Stone      | 528837  | 218335   | 111                    | 111                    |           |                |
| East Herts          | 64      | 165          | 3a South Street & The Dells (3/10/0569)  | Near Certain           | Residential              | 18 Dwellings   | Bishop's Stortford   | 548848  | 221212   | 18                     | 18                     |           |                |
| East Herts          | 65      | 170          | Terlings Park, Eastwick Road, Gilston (3/11/0554)  | Near Certain           | Residential              | 200 Dwellings  | Harlow               | 544899  | 211869   | 200                    | 200                    |           |                |
| East Herts          | 66      | 168          | 71-77 South Street   | Near Certain           | Residential              | 53 Dwellings   | Bishop's Stortford   | 549021  | 220678   | 53                     | 53                     |           |                |
| East Herts          | 67      | 166          | Former Fyfe Wilson Site, Station Road  | Reasonably Foreseeable | Residential              | 42 Dwellings   | Bishop's Stortford   | 549156  | 220998   | 42                     | 42                     |           |                |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION  | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|---|------------------------|--------------------------|------------------------------------|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| East Herts | 68      | 168          | Works, Southmill Road   | Reasonably Foreseeable | Residential              | 35 Dwellings                       | Bishop's Stortford   | 549179  | 220567   | 35                     | 35                     |           |                |
| East Herts | 69      | 168          | Delivery Office & Post Office Site  | Reasonably Foreseeable | Residential              | 25 Dwellings                       | Bishop's Stortford   | 548829  | 220945   | 25                     | 25                     |           |                |
| East Herts | 70      | 166          | Pearce House Site, Parsonage Lane   | Reasonably Foreseeable | Residential              | 22 Dwellings                       | Bishop's Stortford   | 550385  | 221605   | 22                     | 22                     |           |                |
| East Herts | 71      | 166          | Sports Field, Birchwood High School   | Reasonably Foreseeable | Residential              | 40 Dwellings                       | Bishop's Stortford   | 550646  | 221695   | 40                     | 40                     |           |                |
| East Herts | 72      | 177          | Land at Brazier's Field   | Reasonably Foreseeable | Residential              | 18 Dwellings                       | Hertford             | 534036  | 212633   | 18                     | 18                     |           |                |
| East Herts | 74      | 178          | Sovereign House, Hertford   | Reasonably Foreseeable | Residential              | 84 dwellings                       | Hertford             | 532508  | 212280   | 84                     | 84                     |           |                |
| East Herts | 75      | 178          | South of Mead Lane (next to Hertford East Station)  | Near Certain           | Residential              | 107 dwellings                      | Hertford             | 533192  | 213045   | 107                    | 107                    |           |                |
| Enfield    | 83      | 703          | Train Lengthening on Lee Valley Line - Upgrade to 4 per hour  | Reasonably Foreseeable | Public Transport         | -                                  | Enfield              | 534857  | 196792   |                        |                        |           |                |
| Enfield    | 86      | 703          | Increase Bus Frequency between - Central Leaside and Edmonton Green Central Leaside and Angel Edmonton/Ponders End and Edmonton Green/Ponders End and Enfield Town/Palmers Green and Angel Edmonton/New Southgate and Palmers Green | Reasonably Foreseeable | Public Transport         | -                                  | Enfield              | 534704  | 195220   |                        |                        |           |                |
| Enfield    | 87      | 703          | Development of 2 Commercial Wharfs  | Reasonably Foreseeable | Industrial               | -                                  | Enfield              | 536014  | 196180   |                        |                        |           |                |
| Enfield    | 111     | 703          | Small Site Housing - 0 - 5 Years (2010-2015)  | Near Certain           | Residential              | Up to 1210 Dwellings               | Enfield              | 533118  | 196813   | 908                    | 1210                   |           |                |
| Enfield    | 112     | 703          | Small Site Housing - 5 - 10 Years (2015-2020)   | More than Likely       | Residential              | Up to 1370 Dwellings               | Enfield              | 532660  | 197075   | 685                    | 1370                   |           |                |
| Enfield    | 113     | 703          | Small Site Housing - 11 - 15 Years (2020-2025)  | Hypothetical           | Residential              | Up to 1370 Dwellings               | Enfield              | 533096  | 197315   | 0                      | 1370                   |           |                |

| DISTRICT | Log Ref | WYG Zone ref | SCHEME DESCRIPTION  | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION         | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|----------|---------|--------------|---|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| Enfield  | 115     | 703          | Central Leaside (Meridian Water) 0 - 5 Years (2010-2015)                        | Near Certain           | Residential              | 100 Dwellings                              | Enfield              | 535423  | 191811   | 75                     | 100                    |           |                |
| Enfield  | 116     | 703          | Central Leaside (Meridian Water) 5 - 10 Years (2015-2020)                       | More than Likely       | Residential              | 650 Dwellings                              | Enfield              | 535423  | 191811   | 325                    | 650                    |           |                |
| Enfield  | 117     | 703          | Central Leaside (Meridian Water) 10 - 15 Years (2020-2025)                      | Reasonably Foreseeable | Residential              | 2250 Dwellings                             | Enfield              | 535423  | 191811   | 0                      | 2250                   |           |                |
| Enfield  | 118     | 703          | Central Leaside (Meridian Water) 15 - 20 Years (2025-2030)                      | Hypothetical           | Residential              | Up to 2000 Dwellings                       | Enfield              | 535423  | 191811   | 0                      | 2000                   |           |                |
| Enfield  | 119     | 703          | Central Leaside (Meridian Water) 5 - 10 Years (2015-2020)                       | Hypothetical           | Educational              | New Secondary School                       | Enfield              | 535423  | 191811   |                        |                        |           |                |
| Enfield  | 120     | 703          | Enfield Town 0 - 5 Years (2010-2015)  | Near Certain           | Residential              | 200 Dwellings                              | Enfield              | 532551  | 196748   | 150                    | 200                    |           |                |
| Enfield  | 121     | 703          | Enfield Town 5 - 10 Years (2015-2020)   | More than Likely       | Residential              | 300 Dwellings                              | Enfield              | 532310  | 197337   | 150                    | 300                    |           |                |
| Enfield  | 122     | 703          | North Circular (including New Southgate) 0 - 5 Years (2010-2015)                | Near Certain           | Residential              | 450 Dwellings                              | Enfield              | 528600  | 193605   | 338                    | 450                    |           |                |
| Enfield  | 123     | 703          | North Circular (including New Southgate) 5 - 10 Years (2015-2020)               | More than Likely       | Residential              | 550 Dwellings                              | Enfield              | 528622  | 194172   | 275                    | 550                    |           |                |
| Enfield  | 124     | 703          | North Circular (including New Southgate) 10 - 15 Years (2020-2025)              | Reasonably Foreseeable | Residential              | 500 Dwellings                              | Enfield              | 529102  | 193823   | 0                      | 500                    |           |                |
| Enfield  | 125     | 703          | North Circular (including New Southgate) 15 - 20 Years (2025-2030)              | Hypothetical           | Residential              | Up to 500 Dwellings                        | Enfield              | 529058  | 194194   | 0                      | 500                    |           |                |
| Enfield  | 126     | 703          | North Circular (including New Southgate) 0 - 5 Years (2010-2015)                | Hypothetical           | Educational              | Development of Broomfield Secondary School | Enfield              | 528425  | 193889   |                        |                        |           |                |
| Enfield  | 127     | 703          | North East Enfield (Ponders End and Southern Brimsdown) 0 - 5 Years (2010-2015) | Near Certain           | Residential              | 250 Dwellings                              | Enfield              | 535563  | 196966   | 188                    | 250                    |           |                |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION  | DEVELOPMENT LOCATION  | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|--|--------------------|--------------------------|---|---|---------|----------|------------------------|------------------------|-----------|----------------|
| Enfield    | 128     | 703          | North East Enfield (Ponders End and Southern Brimsdown) 5 - 10 Years (2015-2020) | More than Likely   | Residential              | 750 Dwellings   | Enfield   | 535366  | 197381   | 375                    | 750                    |           |                |
| Enfield    | 129     | 703          | North East Enfield (Ponders End and Southern Brimsdown) 0 - 5 Years (2010-2015)  | Hypothetical       | Educational              | New Secondary School  | Enfield   | 535563  | 197643   |                        |                        |           |                |
| Enfield    | 130     | 703          | Other Large Sites (>0.5ha) 0 - 5 Years (2010-2015)                               | Near Certain       | Residential              | 481 Dwellings (largest site identified as Innova Park, Kinetic Crescent)    | Enfield   | 536720  | 199149   | 361                    | 481                    |           |                |
| Enfield    | 131     | 703          | Other Large Sites (>0.5ha) 5 - 10 Years (2015-2020)                              | More than Likely   | Residential              | 550 Dwellings (largest site identified as Chase Farm Hospital, Hunters Way) | Enfield   | 536458  | 199127   | 275                    | 550                    |           |                |
| Enfield    | 143     | 703          | Retail Floorspace Provision up to 2015   | More than Likely   | Retail                   | 7850sqm   | Enfield   | 531943  | 197021   |                        |                        | 3140      | Retail         |
| Enfield    | 144     | 703          | Retail Floorspace Provision up to 2015   | More than Likely   | Retail                   | 1122sqm   | Edmonton Green  | 534591  | 192626   |                        |                        | 448.8     | Retail         |
| Enfield    | 145     | 703          | Retail Floorspace Provision up to 2015   | More than Likely   | Retail                   | 748sqm  | Angel Edmonton  | 534126  | 193907   |                        |                        | 299.2     | Retail         |
| Enfield    | 146     | 703          | Retail Floorspace Provision up to 2015   | More than Likely   | Retail                   | 1540sqm   | Southgate   | 531186  | 193587   |                        |                        | 616       | Retail         |
| Enfield    | 147     | 703          | Retail Floorspace Provision up to 2015   | More than Likely   | Retail                   | 1100sqm   | Palmers Green   | 531768  | 193296   |                        |                        | 440       | Retail         |
| Enfield    | 148     | 703          | Retail Floorspace Provision up to 2015   | More than Likely   | Retail                   | 6820sqm   | Other Centres   | 531594  | 197341   |                        |                        | 2728      | Retail         |
| Enfield    | 149     | 703          | Retail Floorspace Provision up to 2020   | Hypothetical       | Retail                   | 51600sqm  | Predominantly Edmonton Green and Angel Edmonton district centres and regeneration of Meridian Water | 533980  | 192684   |                        |                        | 20640     | Retail         |
| Enfield    | 150     | 703          | Retail Floorspace Provision up to 2025   | Hypothetical       | Retail                   | 85300sqm  | Predominantly Edmonton Green and Angel Edmonton district centres and regeneration of Meridian Water | 533951  | 192946   |                        |                        | 34120     | Retail         |
| Broxbourne | 153     | 507          | Housing Development (Brownfield Sites) in Hoddesdon                              | Near Certain       | Residential              | 790 Dwellings   | Broxbourne  | 537852  | 209469   | 198                    | 790                    |           |                |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION  | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION  | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class          |
|------------|---------|--------------|---|------------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|-------------------------|
| Broxbourne | 154     | 507          | Housing Development (Brownfield Sites) in Broxbourne and Wormley / Turnford | Near Certain           | Residential              | 380 Dwellings   | Broxbourne           | 535756  | 206363   | 95                     | 380                    |           |                         |
| Broxbourne | 155     | 507          | Housing Development (Brownfield Sites) in Cheshunt                          | Near Certain           | Residential              | 640 Dwellings   | Broxbourne           | 536125  | 202619   | 160                    | 640                    |           |                         |
| Broxbourne | 156     | 507          | Housing Development (Brownfield Sites) in Waltham Cross                     | Near Certain           | Residential              | 840 Dwellings   | Broxbourne           | 535872  | 200833   | 210                    | 840                    |           |                         |
| Broxbourne | 157     | 507          | Release of Green Belt Land to meet medium and long term housing needs       | Near Certain           | Residential              | Land west of Hoddesdon - up to 523 Dwellings  | Broxbourne           | 536247  | 209247   | 131                    | 523                    |           |                         |
| Broxbourne | 158     | 507          | Release of Green Belt Land to meet medium and long term housing needs       | More than Likely       | Residential              | Land west of the A10 - up to 1600 Dwellings   | Broxbourne           | 533078  | 203598   | 0                      | 1600                   |           |                         |
| Broxbourne | 159     | 507          | Release of Green Belt Land to meet medium and long term housing needs       | Reasonably Foreseeable | Residential              | Land at Bury Green - up to 160 Dwellings  | Broxbourne           | 534698  | 201525   | 40                     | 160                    |           |                         |
| Broxbourne | 161     | 507          | Release of Green Belt Land to meet medium and long term employment needs    | More than Likely       | Employment               | The Southern A10 Corridor - Maxwells Farm West (26 hectares / 100,000sqm industrial). Only bring forward if Park Plaza North is delayed   | Broxbourne           | 535041  | 201651   |                        |                        | 40000     | B2 (General Industrial) |
| Broxbourne | 162     | 507          | Release of Green Belt Land to meet medium and long term employment needs    | Reasonably Foreseeable | Employment               | The Southern A10 Corridor - Park Plaza West (40 hectares / 100,000sqm high quality business park).  | Broxbourne           | 534926  | 200422   |                        |                        | 40000     | B1 (Business Park)      |
| Broxbourne | 163     | 507          | Park Plaza Development  | Near Certain           | Employment               | 10 hectares of undeveloped land at Park Plaza North allocated for mix of business, high tech, research and development  | Broxbourne           | 535405  | 200726   |                        |                        | 40000     | B1 (Business Park)      |
| Broxbourne | 164     | 507          | Hoddesdon Business Park   | More than Likely       | Mixed Use                | Development brief outlines a high quality mixed use residential / employment gateway scheme. Permission for 71 residential dwellings recently approved on one of the sites              | Broxbourne           | 538639  | 208689   | 71                     | 71                     |           |                         |
| Broxbourne | 165     | 507          | Greater Brookfield Retail and Leisure Development                           | More than Likely       | Mixed Use                | 50,000sqm retail floorspace, 15,000sqm leisure floorspace and 300 new dwellings<br>Advised by BroxBC: quantum of devt to be determined by New Local Plan and supporting retail evidence | Broxbourne           | 536127  | 204611   | 75                     | 300                    | 20000     | ail (50%) Leisure (50   |
| Uttlesford | 178     | 102          | Pre/Primary School  | Near Certain           | Educational              | Identified as Critical to support new development but not deliverable until at least 2020   | Saffron Waldon       | 555059  | 238113   |                        |                        |           |                         |
| Uttlesford | 183     | 107          | Pre/Primary School  | Near certain           | Educational              | Identified as Critical. Deliverable from 2014/16  | Great Dunmow         | 561647  | 222185   |                        |                        |           |                         |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION                                 | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION   | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class      |
|------------|---------|--------------|--|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|---------------------|
| Uttlesford | 188     | 107          | New Health Centre                                  | Reasonably Foreseeable | Health Care              | Identified as Essential to support new development but not deliverable until at least 2025 | Elsenham             | 561166  | 222170   |                        |                        |           |                     |
| Uttlesford | 189     | 101          | Pre School   | Near Certain           | Educational              | Identified as Critical. Deliverable from 2014/15   | Great Chesterford    | 551210  | 243038   |                        |                        |           |                     |
| Uttlesford | 191     | 102          | Land East of Saffron Walden                        | Near Certain           | Mixed Use                | Allocated for 800 dwellings and 4 hectares of employment land                              | Saffron Waldon       | 555156  | 238175   | 0                      | 0                      | 16000     | B1 (General Office) |
| Uttlesford | 192     | 102          | Former Willis and Gambier Site, Radwinter Road     | Near Certain           | Residential              | Allocated for 52 Dwellings   | Saffron Waldon       | 555238  | 238526   | 52                     | 52                     |           |                     |
| Uttlesford | 193     | 101          | The Ashdon Road Commercial Centre                  | Near Certain           | Mixed Use                | Allocated for 167 Dwellings and 4 hectares of employment land                              | Saffron Waldon       | 555305  | 239030   | 167                    | 167                    | 16000     | B1 (General Office) |
| Uttlesford | 194     | 107          | Land West of Great Dunmow, north of Stortford Road | Near certain           | Residential              | Allocated for 790 Dwellings. Add Els 1300 & shortfall of LP for test purposes 1135         | Great Dunmow         | 561166  | 222170   | 210                    | 790                    |           |                     |
| Uttlesford | 195     | 107          | Land West of Great Dunmow, south of Stortford Road | Near Certain           | Residential              | Allocated for 400 Dwellings  | Great Dunmow         | 561316  | 221650   | 114                    | 400                    |           |                     |
| Uttlesford | 196     | 107          | Land at Helena Romanes School                      | Reasonably Foreseeable | Residential              | Allocation for 100 Dwellings   | Great Dunmow         | 562144  | 222977   | 29                     | 100                    |           |                     |
| Uttlesford | 197     | 107          | Land West of Chelmsford Road                       | Near Certain           | Mixed Use                | Allocated for 300 Dwellings and 2 hectares of employment land                              | Great Dunmow         | 563531  | 220804   | 220                    | 300                    | 8000      | B1 (General Office) |
| Uttlesford | 198     | 107          | Land at Woodlands Park                             | Near Certain           | Residential              | Allocated for 988 Dwellings  | Great Dunmow         | 561763  | 222648   | 438                    | 988                    |           |                     |
| Uttlesford | 199     | 107          | Land South of Ongar Road                           | Near Certain           | Residential              | Allocated for 100 Dwellings  | Great Dunmow         | 563024  | 220854   | 100                    | 100                    |           |                     |
| Uttlesford | 200     | 107          | Land North of Ongar Road                           | Near Certain           | Residential              | Allocated for 73 Dwellings   | Great Dunmow         | 562769  | 221014   | 73                     | 73                     |           |                     |
| Uttlesford | 201     | 107          | Land at Brick Kiln Farm                            | Near Certain           | Residential              | Allocated for 65 Dwellings   | Great Dunmow         | 563249  | 222519   | 65                     | 65                     |           |                     |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION                                    | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION | DEVELOPMENT LOCATION  | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|---|------------------------|--------------------------|------------------------------------|-----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| Uttlesford | 202     | 105          | Land North of Elsenham                                | Reasonably Foreseeable | Mixed Use                | Assume 800 dwellings               | Elsenham              | 553796  | 226676   | 0                      | 0                      | 0         | 0              |
| Uttlesford | 203     | 105          | Land West of Station Road                             | Near Certain           | Residential              | Allocated for 155 Dwellings        | Elsenham              | 553184  | 226514   | 155                    | 155                    |           |                |
| Uttlesford | 204     | 105          | Land West of Hall Road                                | Near Certain           | Residential              | Allocated for 130 Dwellings        | Elsenham              | 553746  | 226166   | 130                    | 130                    |           |                |
| Uttlesford | 205     | 105          | Land South of Stansted Road                           | Near Certain           | Residential              | Allocated for 165 Dwellings        | Elsenham              | 553152  | 225951   | 165                    | 165                    |           |                |
| Uttlesford | 206     | 101          | Land South of Stanley Road                            | Near Certain           | Residential              | Allocated for 60 Dwellings         | Great Chesterford     | 551143  | 243054   | 50                     | 50                     |           |                |
| Uttlesford | 207     | 103          | Land at Bury Water Lane / Whiteditch Lane             | Near Certain           | Residential              | Allocated for 84 Dwellings         | Newport               | 551640  | 234404   | 84                     | 84                     |           |                |
| Uttlesford | 208     | 103          | Land West of London Road                              | Near Certain           | Residential              | Allocated for 70 Dwellings         | Newport               | 551985  | 233404   | 22                     | 70                     |           |                |
| Uttlesford | 209     | 105          | Land at Forest Hall Park                              | Near Certain           | Residential              | Allocated for 85 Dwellings         | Stansted Mountfitchet | 551267  | 224144   | 85                     | 85                     |           |                |
| Uttlesford | 210     | 105          | Land at Walpole Farm (north of Stansted Mountfitchet) | Near Certain           | Residential              | Allocated for 160 Dwellings        | Stansted Mountfitchet | 551210  | 226179   | 160                    | 160                    |           |                |
| Uttlesford | 211     | 106          | Land at Elms Farm                                     | Near Certain           | Residential              | Allocated for 51 Dwellings         | Stansted Mountfitchet | 551527  | 224779   | 51                     | 51                     |           |                |
| Uttlesford | 212     | 106          | Land at Priors Green                                  | Near Certain           | Residential              | Allocated for 142 Dwellings        | Takeley               | 557024  | 221613   | 142                    | 142                    |           |                |
| Uttlesford | 213     | 106          | Land South of Dunmow Road, Brewers End                | Near Certain           | Residential              | Allocated for 100 Dwellings        | Takeley               | 555609  | 221214   | 100                    | 100                    |           |                |
| Uttlesford | 214     | 104          | Land South of Sampford Road                           | Near Certain           | Residential              | Allocated for 60 Dwellings         | Thaxted               | 561252  | 231798   | 60                     | 60                     |           |                |

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|---------------|---------|--------------|---|------------------------|--------------------------|---|-----------------------|---------|----------|------------------------|------------------------|-----------|--|
| Uttlesford    | 215     | 108          | Land at Flitch Green                    | Near Certain           | Residential              | Allocated for 154 Dwellings   | Flitch Green          | 566649  | 220672   | 154                    | 154                    |           |  |
| Uttlesford    | 216     | 105          | Alsa Street                             | Reasonably Foreseeable | Employment               | Allocated for 3 hectares (B1)   | Stansted Mountfitchet | 551607  | 226446   |                        |                        | 12000     | B1 (General Office)  |
| Uttlesford    | 217     | 106          | Bury Lodge Lane                         | Reasonably Foreseeable | Employment               | Allocated for 18 hectares (B1, B8)  | Stansted Mountfitchet | 552522  | 223232   |                        |                        | 72000     | Split B1 (General Industrial) 50% B8 (Warehousing) 50%                         |
| Uttlesford    | 218     | 101          | Chesterford Park                        | Reasonably Foreseeable | Employment               | Allocated for 8 hectares (Research & Development)   | Little Chesterford    | 553211  | 242262   |                        |                        | 32000     | B1 (Business Park)   |
| Uttlesford    | 219     | 105          | Gaunts End                              | Reasonably Foreseeable | Employment               | Allocated for 6 hectares (B1)   | Elsenham              | 554874  | 225203   |                        |                        | 24000     | B1 (General Office)  |
| Uttlesford    | 220     | 106          | Stansted Airport                        | Reasonably Foreseeable | Employment               | Allocated for 136 hectares (B1, B8)   | Stansted Airport      | 554231  | 222349   |                        |                        | 544000    | Split B1 (General Industrial) 50% B8 (Warehousing) 50%                         |
| Uttlesford    | 221     | 109          | Start Hill                              | Near Certain           | Employment               | Allocated for 2 hectares (B1, B2, B8)   | Great Hallingbury     | 552689  | 221323   |                        |                        | 8000      | Split B1 (General Industrial) 33% B2 (General Office) 33% B8 (Warehousing) 33% |
| Uttlesford    | 222     | 106          | Stansted Airport                        | Reasonably Foreseeable |                          | Proposed Passenger Number Ceiling based on Current Permissions / Infrastructure - 35MPPA. Aiming to achieve by 2025                                     | Stansted Airport      | 555708  | 223680   |                        |                        |           |  |
| Uttlesford    | 223     | 106          | Stansted Airport                        | Hypothetical           |                          | Proposed Future Passenger Numbers based on Future Development / Airport Expansion - 45MPPA - aiming to achieve by 2030 (subject to planning permission) | Stansted Airport      | 555708  | 223680   |                        |                        |           |  |
| Uttlesford    | 224     | 106          | Stansted Airport                        | Hypothetical           | Employment               | Additional airport-related employment associated with Airport Expansion - from 10k in 2013 to 18.8k by 2025   | Stansted Airport      | 554798  | 222975   |                        |                        |           | Airport  |
| Epping Forest | 225     | 194          | Powell Road, Buckhurst Hill - Site BK11 | Reasonably Foreseeable | Residential              | 60 Dwellings  | Buckhurst Hill        | 541495  | 194403   | 17                     | 60                     |           |  |
| Epping Forest | 226     | 194          | Station Way, Buckhurst Hill - Site BK2  | Reasonably Foreseeable | Residential              | 12 Dwellings  | Buckhurst Hill        | 541570  | 193005   | 4                      | 12                     |           |  |
| Epping Forest | 227     | 195          | Hainault Road (Small) - Site CHG-1      | Reasonably Foreseeable | Residential              | 10 Dwellings  | Chigwell              | 544020  | 193235   | 3                      | 10                     |           |  |



| DISTRICT      | Log Ref | WYG Zone ref | SCHEME DESCRIPTION                                       | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION                                      | DEVELOPMENT LOCATION | Eastings | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class     |
|---------------|---------|--------------|--|------------------------|--------------------------|---|----------------------|----------|----------|------------------------|------------------------|-----------|--------------------|
| Epping Forest | 228     | 195          | Vicarage Lane / High Road - Site CHG-B                   | Reasonably Foreseeable | Residential              | 75 Dwellings  | Chigwell             | 544271   | 193834   | 21                     | 75                     |           |                    |
| Epping Forest | 229     | 195          | Land South of Chigwell Brook - Site CHG-D                | Reasonably Foreseeable | Mixed Use                | 50 Dwellings  | Chigwell             | 544243   | 193277   | 14                     | 50                     |           |                    |
| Epping Forest | 230     | 183          | Land East of Fyfield Road & North of A414 - Site ONG-A   | Reasonably Foreseeable | Mixed Use                | 635 Dwellings and 5.3 hectares of Employment (ONLY INCLUDE EMPLOYMENT)  | Chipping Ongar       | 555461   | 204151   | 0                      | 0                      | 21200     | B1 (Business Park) |
| Epping Forest | 233     | 183          | Land South East of Marden Ash - Site ONG-D               | Reasonably Foreseeable | Mixed Use                | 293 Dwellings and 4.48 hectares of Employment (ONLY INCLUDE EMPLOYMENT) | Chipping Ongar       | 555422   | 201709   | 0                      | 0                      | 17920     | B1 (Business Park) |
| Epping Forest | 234     | 183          | Land South West of Marden Ash - Site ONG-E               | Reasonably Foreseeable | Mixed Use                | 808 Dwellings and 1.44 hectares of Employment                           | Chipping Ongar       | 554885   | 201884   | 231                    | 808                    | 5760      | B1 (Business Park) |
| Epping Forest | 237     | 184          | Land at St John's Road - Site EPP-1                      | Reasonably Foreseeable | Residential              | 35 Dwellings and 1.2 hectares of Employment                             | Epping               | 545898   | 202230   | 10                     | 35                     | 4800      | B1 Office Average  |
| Epping Forest | 238     | 185          | Bower Hill Industrial Estate & Laundry Site - Site EPP-4 | Reasonably Foreseeable | Residential              | 55 Dwellings  | Epping               | 546147   | 201319   | 0                      | 55                     |           |                    |
| Epping Forest | 243     | 185          | Land South of Theydon Place - Site EPP-E                 | Reasonably Foreseeable | Residential              | 60 Dwellings  | Epping               | 545712   | 201513   | 0                      | 60                     |           |                    |
| Epping Forest | 244     | 185          | Land North of M25 & South of Chimneys Road - Site EPP-F  | Reasonably Foreseeable | Residential              | 44 Dwellings  | Epping               | 545642   | 200827   | 13                     | 44                     |           |                    |
| Epping Forest | 245     | 185          | Land North of M25 & South of Brook Road - Site EPP-G     | Reasonably Foreseeable | Residential              | 200 Dwellings   | Epping               | 546198   | 200672   | 57                     | 200                    |           |                    |
| Epping Forest | 247     | 191          | Land North of Clay's Lane - Site LOU-1                   | Reasonably Foreseeable | Residential              | 162 Dwellings   | Loughton / Debden    | 543452   | 197915   | 46                     | 162                    |           |                    |
| Epping Forest | 252     | 190          | Land at Vere Road - Site LOU-6                           | Reasonably Foreseeable | Residential              | 41 Dwellings  | Loughton / Debden    | 544262   | 196429   | 12                     | 41                     |           |                    |
| Epping Forest | 253     | 190          | Land at Burton Road - Site LOU-9                         | Reasonably Foreseeable | Residential              | 80 Dwellings  | Loughton / Debden    | 544350   | 196337   | 23                     | 80                     |           |                    |

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|---------------|---------|--------------|---|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|---------------------|
| Epping Forest | 256     | 181          | Land to North of Maplecroft Lane & Shooters Drive - Site NAZ-A            | Reasonably Foreseeable | Residential              | 150 Dwellings  | Lower Nazeing        | 539570  | 206597   | 43                     | 150                    |           |                     |
| Epping Forest | 257     | 181          | Land to South of Pound Close / Middle Street - Site NAZ-B                 | Reasonably Foreseeable | Mixed Use                | 55 Dwellings and 1.0 hectare of Employment                                   | Lower Nazeing        | 539350  | 205782   | 16                     | 55                     | 4000      | B1 (General Office) |
| Epping Forest | 258     | 180          | Land to South of Sawbridgeworth Road, East of Lower Sheering - Site LSH-B | Reasonably Foreseeable | Residential              | 14 Dwellings   | Lower Sheering       | 549211  | 214983   | 4                      | 14                     |           |                     |
| Epping Forest | 259     | 180          | Land to West of Crown Close, East of M11 - Site SHE-A                     | Reasonably Foreseeable | Residential              | 71 Dwellings   | Sheering             | 550251  | 213890   | 20                     | 71                     |           |                     |
| Epping Forest | 262     | 180          | Land Between A414 & Vicarage Lane - Site NWB-A                            | Reasonably Foreseeable | Residential              | 674 Dwellings (ONLY INCLUDE 33% OF DWELLINGS)                                | North Weald Bassett  | 549989  | 204896   | 61                     | 225                    |           |                     |
| Epping Forest | 264     | 180          | Land at North Weald Airfield - Sites NWA-A/B/C/D                          | Reasonably Foreseeable | Mixed                    | 674 Dwellings and 8.2 hectares of Employment (ONLY INCLUDE 33% OF DWELLINGS) | North Weald Bassett  | 548944  | 203942   | 61                     | 225                    | 32800     | B1 (General Office) |
| Epping Forest | 266     | 181          | Land East of Epping Road - Site ROY-B                                     | Reasonably Foreseeable | Residential              | 708 Dwellings  | Roydon               | 540925  | 209430   | 202                    | 708                    |           |                     |
| Epping Forest | 268     | 189          | Land East of Dukes Avenue - Site THB-A                                    | Reasonably Foreseeable | Residential              | 31 Dwellings   | Theydon Bois         | 545355  | 199646   | 9                      | 31                     |           |                     |
| Epping Forest | 269     | 189          | Land at Coppice Farm - Site THB-B   | Reasonably Foreseeable | Residential              | 68 Dwellings   | Theydon Bois         | 544358  | 199349   | 19                     | 68                     |           |                     |
| Epping Forest | 271     | 184          | Land to North of Weald Hall Lane - Site THO-A                             | Reasonably Foreseeable | Mixed                    | 231 Dwellings and 1.1 hectares of Employment (INCLUDE RESIDENTIAL ONLY)      | Thornwood Common     | 547378  | 204955   | 66                     | 231                    | 4400      | B1 (General Office) |
| Epping Forest | 274     | 188          | Land East of Old Shire Lane and Ninefields Estate - Site WAL-B            | Reasonably Foreseeable | Residential              | 500 Dwellings  | Waltham Abbey        | 540560  | 200426   | 143                    | 500                    |           |                     |
| Epping Forest | 278     | 186          | Land North of Parklands & East of Crooked Mile - Site WAL-F               | Reasonably Foreseeable | Residential              | 672 Dwellings  | Waltham Abbey        | 538965  | 201282   | 192                    | 672                    |           |                     |
| Epping Forest | 279     | 187          | Land South of M25 & North of A121 - Site WAL-G                            | Reasonably Foreseeable | Employment               | 104,000sqm Employment Land   | Waltham Abbey        | 539120  | 199637   |                        |                        | 41600     | B1 (General Office) |

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|----------|---------|--------------|--|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| Harlow   | 280     | 197          | A414 / London Road Enterprise Zone New Access & Link Road                            | Near Certain           | Highway                  | Fully Funded - due to start August 2014                            | Harlow               | 546962  | 210637   |                        |                        |           |                |
| Harlow   | 281     | 204          | A414 / Clocktower Junction Capacity Upgrade  | Near Certain           | Highway                  | Fully Funded - Construction started Summer 2014                    | Harlow               | 546587  | 209350   |                        |                        |           |                |
| Harlow   | 284     | 197          | A414 First Avenue / Gilden Way Junction Upgrade                                      | more than likely       | Highway                  | Fully Funded - Construction starting Summer 2015                   | Harlow               | 546906  | 211108   |                        |                        |           |                |
| Harlow   | 285     | 198          | A414 Cambridge Road (Gates) Upgrade - including widening to 4 lanes of Edinburgh Way | more than likely       | Highway                  | Fully Funded - Construction starting Summer 2015                   | Harlow               | 546870  | 211980   |                        |                        |           |                |
| Harlow   | 287     | 198          | A414 Edinburgh Way / East Road Signal Junction Improvement                           | Near Certain           | Highway                  | Fully Funded - Construction starting Summer 2015                   | Harlow               | 546465  | 211757   |                        |                        |           |                |
| Harlow   | 288     | 170          | A414 / Eastwick Road Junction Capacity Upgrade                                       | Hypothetical           | Highway                  | No funding in place - or design work undertaken                    | Harlow               | 544382  | 211717   |                        |                        |           |                |
| Harlow   | 290     | 197          | Cambridge Road - new access into River way   | Near Certain           | Highway                  | Funding Secured - Design work being progressed.                    | Harlow               | 547175  | 212757   |                        |                        |           |                |
| Harlow   | 291     | 202          | Second Avenue / Velizy Avenue Junction Capacity Upgrade                              | Reasonably Foreseeable | Highway                  | No Funding in place - design work being progressed                 | Harlow               | 544868  | 209654   |                        |                        |           |                |
| Harlow   | 292     | 199          | First Avenue / Velizy Avenue Junction Capacity Upgrade                               | Reasonably Foreseeable | Highway                  | No Funding in place - design work being progressed - dwg available | Harlow               | 544746  | 210240   |                        |                        |           |                |
| Harlow   | 293     | 197          | B183 London Road to Harlowbury Upgrade   | Reasonably Foreseeable | Highway                  | No Funding in place - design work being progressed                 | Harlow               | 547841  | 211878   |                        |                        |           |                |
| Harlow   | 298     | 197          | Land North of Gilden Way   | Near Certain           | Residential              | Planning Permission on Appeal. 1100 Dwellings                      | Greater Harlow       | 547928  | 212019   | 911                    | 911                    |           |                |
| Harlow   | 299     | 203          | Kitson Way Multi Story Car Park Site   | Reasonably Foreseeable | Residential              | Planning Permission Expired  | Greater Harlow       | 544344  | 209880   | 0                      | 170                    |           |                |
| Harlow   | 300     | 197          | New Pond Street  | Reasonably Foreseeable | Residential              | Planning Permission Expired  | Greater Harlow       | 547644  | 210722   | 31                     | 31                     |           |                |

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|----------|---------|--------------|---|------------------------|--------------------------|---|----------------------|----------|----------|------------------------|------------------------|-----------|----------------|
| Harlow   | 302     | 204          | Prentice Place Site   | Reasonably Foreseeable | Residential              | Planning Permission Lapsed. 63 Dwellings  | Greater Harlow       | 547211   | 208697   | 25                     | 25                     |           |                |
| Harlow   | 303     | 200          | Gateway Scheme, Fifth Avenue                                    | Completed              | Residential              | Planning Permission Granted. 101 Dwellings. <b>87 Outstanding</b>                 | Greater Harlow       | 544561   | 210585   | 0                      | 0                      |           |                |
| Harlow   | 304     | 197          | Parcel 1 of New Hall Phase 2                                    | Near Certain           | Residential              | Planning Permission Granted. 328 Dwellings  | Greater Harlow       | 547496   | 210187   | 0                      | 0                      |           |                |
| Harlow   | 305     | 197          | New Hall Phase 2 & 3, assume 420 pupil primary school           | Near Certain           | Residential              | Planning Permission Granted. 2347 Dwellings.                                      | Greater Harlow       | 547496   | 210130   | 1527                   | 2347                   |           |                |
| Harlow   | 307     | 200          | Motorsales Site, Fifth Avenue                                   | Reasonably Foreseeable | Residential              | Planning Permission Granted. 102 Dwellings  | Greater Harlow       | 544366   | 210971   | 0                      | 102                    |           |                |
| Harlow   | 310     | 198          | Various Small Sites < 20 dwellings                              | Near Certain           | Residential              | Planning Permission Approved for 90 Dwellings at Various locations                | Greater Harlow       | 546199   | 210267   | 84                     | 84                     |           |                |
| Harlow   | 311     | 206          | Land to South of Berecroft                                      | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 294 Dwellings deliverable within 5 years | Greater Harlow       | 544936   | 207423   | 0                      | 294                    |           |                |
| Harlow   | 312     | 200          | Ram Gorse Site  | Near Certain           | Residential              | SHLAA Site or Broad Location for Growth. 125 Dwellings deliverable within 5 years | Greater Harlow       | 543594   | 210426   | 125                    | 125                    |           |                |
| Harlow   | 313     | 205          | Rectory Field Playing Field                                     | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 70 Dwellings deliverable within 5 years  | Greater Harlow       | 543563   | 208890   | 0                      | 70                     |           |                |
| Harlow   | 314     | 205          | Playing Field to West of Deer Park                              | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 69 Dwellings deliverable within 5 years  | Greater Harlow       | 543351   | 208283   | 0                      | 69                     |           |                |
| Harlow   | 315     | 206          | Playing Field to East of Radburn Close & South of Clifton Hatch | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 69 Dwellings deliverable within 5 years  | Greater Harlow       | 546301   | 207844   | 0                      | 69                     |           |                |
| Harlow   | 316     | 197          | Playing Field to South of Gilden Way                            | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 67 Dwellings deliverable within 5 years  | Greater Harlow       | 547345   | 211142   | 0                      | 67                     |           |                |
| Harlow   | 317     | 200          | The Angle Site  | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 42 Dwellings deliverable within 5 years  | Greater Harlow       | 544193   | 210039   | 69                     | 69                     |           |                |

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|---------------|---------|--------------|--|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|-------------------|
| Harlow        | 318     | 207          | Lister House, Staple Tye Mews - West of Riddings Lane                      | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 42 Dwellings deliverable within 5 years                       | Greater Harlow       | 544128  | 208014   | 20                     | 42                     |           |                   |
| Harlow        | 319     | 203          | Land North West of Kingsland   | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 41 Dwellings deliverable within 5 years                       | Greater Harlow       | 544276  | 209005   | 42                     | 42                     |           |                   |
| Harlow        | 320     | 206          | Land South of Hawthorns & West of Riddings Lane                            | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 35 Dwellings deliverable within 5 years                       | Greater Harlow       | 545711  | 207781   | 0                      | 35                     |           |                   |
| Harlow        | 321     | 202          | Purford Green School   | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 30 Dwellings deliverable within 5 years                       | Greater Harlow       | 546091  | 209215   | 0                      | 30                     |           |                   |
| Harlow        | 322     | 205          | Land Adjacent to Katherines School   | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 27 Dwellings deliverable within 5 years                       | Greater Harlow       | 542993  | 208532   | 27                     | 27                     |           |                   |
| Harlow        | 323     | 199          | Land East of Downs School  | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 25 Dwellings deliverable within 5 years                       | Greater Harlow       | 544990  | 210049   | 25                     | 25                     |           |                   |
| Harlow        | 324     | 198          | Various Small Sites < 20 dwellings   | Reasonably Foreseeable | Residential              | SHLAA Site or Broad Location for Growth. 186 Dwellings deliverable within 5 years at various locations | Greater Harlow       | 546039  | 210278   | 117                    | 327                    |           |                   |
| Epping Forest | 325     | 180          | East Harlow  | Hypothetical           | Mixed Use                | Broad Location for Growth Outside of Harlow. 2000 Dwellings & 50,000m2 commercial                      | Harlow               | 549273  | 211912   | 500                    | 2000                   | 20000     | B1 Office Average |
| Harlow        | 326     | 200          | Land at Wych Elm   | Hypothetical           | Residential              | 500 Dwellings  | Greater Harlow       | 544312  | 210189   | 0                      | 500                    |           |                   |
| Harlow        | 327     | 206          | Barley Croft, Lower Meadow, The Briars, Copshall Close, Ayletts Field Area | Near Certain           | Residential              | Planning Permission Granted 125 Dwellings NET  | Greater Harlow       | 544879  | 207969   | 125                    | 125                    |           |                   |
| Harlow        | 328     | 203          | Terminus House and Car Park  | Hypothetical           | Residential              | 100 Dwellings  | Greater Harlow       | 544572  | 209891   | 0                      | 100                    |           |                   |
| Harlow        | 329     | 204          | Former Passmores School Site   | Hypothetical           | Residential              | 80 Dwellings   | Greater Harlow       | 546506  | 208697   | 0                      | 0                      |           |                   |
| Harlow        | 330     | 200          | Northbrook Playing Fields  | Hypothetical           | Residential              | 60 Dwellings   | Greater Harlow       | 543764  | 209573   | 0                      | 60                     |           |                   |

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|------------|---------|--------------|---|--------------------|--------------------------|--|-----------------------|---------|----------|------------------------|------------------------|-----------|------------------|
| Harlow     | 331     | 207          | Kingsmoor Recreation Centre   | Hypothetical       | Residential              | 25 Dwellings   | Greater Harlow        | 543690  | 207713   | 0                      | 35                     |           |                  |
| Harlow     | 332     | 207          | Land East of 144-154 Fennells   | Hypothetical       | Residential              | 23 Dwellings   | Greater Harlow        | 544145  | 207253   | 0                      | 23                     |           |                  |
| Harlow     | 336     | 197          | Harlow Enterprise Zone - London Road North  | Near Certain       | Employment               | Covered by Local Development Order - 14 hectare site available for Med Tech, Life Sciences and ICT Sectors (High Tech Industry)      | Greater Harlow        | 547090  | 210540   |                        |                        | 56000     | B1 Business Park |
| Harlow     | 337     | 197          | Harlow Enterprise Zone - London Road South  | Near Certain       | Employment               | Covered by Local Development Order for 20,000sqm B1 Office Space and Data Centre Development.  | Greater Harlow        | 547032  | 210095   |                        |                        | 20000     | B1 Business Park |
| Harlow     | 338     | 198          | Harlow Enterprise Zone - Templefields North East  | Near Certain       | Employment               | Covered by Local Development Order - Existing Industrial Estate offering Manufacturing Space & Redevelopment opportunity - 92,543sqm | Greater Harlow        | 546791  | 212612   |                        |                        | 92,543    | B1 Business Park |
| Uttlesford | 339     | 102          | Miscellaneous committed housing not previously highlighted  | more than likely   | Residential              | 333 homes  | Saffron Waldon        | 554380  | 238430   | 498                    | 498                    |           |                  |
| Uttlesford | 341     | 103          | Committed sites previously omitted  | more than likely   | Residential              | 67 dwellings   | Newport               | 551680  | 234440   | 76                     | 196                    |           |                  |
| Uttlesford | 342     | 105          | St Mary's Primary   | Near Certain       | Residential              | 35 dwellings   | Stansted Mountfitchet | 551330  | 224162   | 0                      | 35                     |           |                  |
| Uttlesford | 343     | 106          | Miscellaneous committed housing not previously highlighted  | more than likely   | Residential              | 22 dwellings   | Stansted Mountfitchet | 551522  | 224777   | 16                     | 16                     |           |                  |
| Uttlesford | 344     | 106          | Committed sites previously omitted  | more than likely   | Residential              | 25 dwellings   | Takeley               | 555591  | 221145   | 86                     | 86                     |           |                  |
| Uttlesford | 345     | 106          | Takeley/Little Canfield Policy 1: Land at and to the rear of former Takeley Primary School, Roseacres | Near Certain       | Residential              | 75 Dwellings   | Takeley               | 556386  | 221525   |                        | 75                     |           |                  |
| Uttlesford | 346     | 106          | Takeley/Little Canfield Policy 2: Land south of Dunmow Road and west of The Pastures/Orchard Fields   | Near Certain       | Residential              | 41 Dwellings   | Takeley               | 555591  | 221145   | 41                     | 41                     |           |                  |
| Uttlesford | 347     | 106          | Takeley/Little Canfield Policy 3: North View and 3 The Warren   | Near Certain       | Residential              | 45 dwellings   | Takeley               | 557746  | 221125   | 45                     | 45                     |           |                  |

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|------------|---------|--------------|---|--------------------|--------------------------|------------------------------------|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| Uttlesford | 348     | 106          | Takeley/Little Canfield Policy 4: Land at Former Takeley Service Station and between Ridge House and Remarc | Near Certain       | Residential              | 15 dwellings                       | Takeley              | 557466  | 221167   |                        | 15                     |           |                |
| Uttlesford | 349     | 106          | Takeley Policy 5, Olivias, Dunmow Rd  | Near Certain       | Residential              | 20 dwellings                       | Takeley              | 556949  | 221122   | 6                      | 6                      |           |                |
| Uttlesford | 350     | 104          | Committed sites previously omitted  | more than likely   | Residential              | 63 dwellings                       | Thaxted              | 561406  | 231544   | 90                     | 90                     |           |                |
| Uttlesford | 351     | 105          | Committed sites previously omitted  | more than likely   | Residential              | 57 dwellings off Station Road      | Elsenham             | 553346  | 226584   | 47                     | 47                     |           |                |
| Uttlesford | 352     | 101          | Great Chesterford Policy 1: New World Timber and Great Chesterford Nursery, London Road                     | Near Certain       | Residential              | 35 dwellings                       | Great Chesterford    | 550663  | 242396   | 42                     | 42                     |           |                |
| Uttlesford | 353     | 103          | CLAVERING Policy 1: Land rear of the shop and Oxleys Close  | Near Certain       | Residential              | 14 Dwellings                       | Clavering            | 547538  | 231325   | 14                     | 14                     |           |                |
| uttlesford | 354     | 105          | HENHAM Policy 1: Land at Blossom Hill Farm, Chickney Road   | Near Certain       | Residential              | 25 Dwellings                       | Henham               | 555646  | 228771   | 21                     | 21                     |           |                |
| Uttlesford | 355     | 105          | HENHAM Policy 2: Land north of Chickney Road and west of Lodge Cottages                                     | Near Certain       | Residential              | 14 Dwellings                       | Henham               | 555396  | 228730   | 16                     | 16                     |           |                |
| Uttlesford | 356     | 104          | RADWINTER Policy 1: Land north of Walden Road   | Near Certain       | Residential              | 40 Dwellings                       | Radwinter            | 560472  | 237362   | 35                     | 35                     |           |                |
| Uttlesford | 357     | 108          | STEBBING Policy 1: Land east of Parkside and Garden Fields  | Near Certain       | Residential              | 10 Dwellings                       | Stebbing             | 566080  | 224695   | 30                     | 30                     |           |                |
| Uttlesford | 358     | 108          | FELSTED Harford End Brewery, committed  | more than likely   | Residential              | 43 dwellings                       | Felsted              | 568560  | 217515   | 0                      | 22                     |           |                |
| Uttlesford | 359     | 108          | FELSTED land at Watch House Green, committed  | more than likely   | Residential              | 25 Dwellings                       | Felsted              | 569235  | 221120   | 25                     | 25                     |           |                |
| Uttlesford | 360     | 109          | HIGH RODING Land at Meadow House, committed   | more than likely   | Residential              | 25 Dwellings                       | High Roding          | 560550  | 217385   | 31                     | 31                     |           |                |

| DISTRICT            | Log Ref | WYG Zone ref | SCHEME DESCRIPTION  | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION   | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class    |
|---------------------|---------|--------------|---|------------------------|--------------------------|--------------------------------------|----------------------|---------|----------|------------------------|------------------------|-----------|-------------------|
| Uttlesford          | 361     | 105          | MANUDEN land off The Street, committed  | more than likely       | Residential              | 10 Dwellings                         | Manuden              | 548950  | 226840   | 14                     | 14                     |           |                   |
| Uttlesford          | 362     | 103          | QUENDON Land rear of Foxley House, committed  | more than likely       | Residential              | 19 Dwellings                         | Quendon              | 551165  | 230000   | 19                     | 19                     |           |                   |
| Uttlesford          | 363     | 103          | CLAVERING Jubilee Works, committed  | more than likely       | Residential              | 24 dwellings                         | Clavering            | 547355  | 232020   | 24                     | 24                     |           |                   |
| Uttlesford          | 364     | 103          | Small Sites: to be spread across district   | Near Certain           | Residential              | 908 dwellings                        | Uttlesford           | 553588  | 233591   | 454                    | 908                    |           |                   |
| East Herts          | 365     | 536          | Land east of Welwyn Garden City   | Hypothetical           | Residential              | 1,700 dwellings                      | Welwyn Garden City   | 526790  | 212660   | 0                      | 1700                   |           |                   |
| East Herts / Harlow | 366     | 197          | A1184 between Redricks Ln Edinburgh Way   |                        | Highway                  | No scheme info                       | East Herts / Harlow  | 547205  | 212695   |                        |                        |           |                   |
| Epping Forest       | 370     | 180          | SR-0006 Dorrington Farm, Rye Hill Road, Harlow, Essex, CM18 7JF   | more than likely       | Mixed                    | 70 dwellings; 9,400m2 commercial     | North Weald Bassett  | 545274  | 206950   | 70                     | 70                     | 3760      | B1 Office Average |
| Epping Forest       | 371     | 181          | SR-0009 Land north side of Epping Road, known as 'Halls Green'  | Reasonably Foreseeable | Mixed                    | 120 dwellings; 61,000m2 commercial   | Roydon               | 541308  | 208542   | 0                      | 120                    | 24400     | B1 Office Average |
| Epping Forest       | 372     | 180          | SR-0046 Latton Priory Farm, London Road, Harlow; Residential led urban extension to Harlow  | Reasonably Foreseeable | Mixed                    | 2250 dwellings; 150,000m2 commercial | Thornwood            | 546277  | 206933   | 563                    | 2250                   | 60000     | B1 Office Average |
| Epping Forest       | 374     | 180          | SR-0066 Harlow Park Nursery, London Road, North Weald Bassett   | more than likely       | Commercial               | 28,760m2 commercial                  | North Weald Bassett  | 547573  | 207676   |                        |                        | 11504     | B1 Office Average |
| Epping Forest       | 375     | 181          | SR-0068 Land to the west of Sumners (bounded in part by Water Lane and Epping Road, Tylers Cross (also partly within Epping Upland and Harlow DC)); Residential led urban extension to Harlow | Reasonably Foreseeable | Residential              | 1100 dwellings                       | Roydon               | 542793  | 207268   | 275                    | 1100                   |           |                   |
| Epping Forest       | 376     | 180          | SR-0074 Land to the east of the A414, New House Farm, Harlow  | more than likely       | Mixed                    | 155 dwellings; 20,680m2 commercial   | North Weald Bassett  | 547066  | 207977   | 0                      | 155                    | 11472     | B1 Office Average |
| Epping Forest       | 378     | 180          | SR-0092 Latton Park, London Road, Harlow  | Reasonably Foreseeable | Commercial               | 71,240m2 commercial                  | North Weald Bassett  | 547353  | 207596   |                        |                        | 28496     | B1 Office Average |



| DISTRICT      | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION               | DEVELOPMENT LOCATION | Eastings | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class    |
|---------------|---------|--------------|--|------------------------|--------------------------|--|----------------------|----------|----------|------------------------|------------------------|-----------|-------------------|
| Epping Forest | 379     | 181          | SR-0107 Land at Epping and Parsloe Road, Roydon, Essex (Blakes Farm)   | more than likely       | Residential              | 135 dwellings                                    | Roydon               | 543204   | 206780   | 0                      | 135                    |           |                   |
| Epping Forest | 380     | 181          | SR-0109 Richmonds Farm, Parsloe Road, Epping Green, CM16 6QB   | more than likely       | Residential              | 37 dwellings                                     | Epping Upland        | 543351   | 206827   | 0                      | 37                     |           |                   |
| Epping Forest | 382     | 206          | SR-0139 Riddings Lane, Hastingwood Road, Hastingwood, North Harlow, Essex, CM18 7HT  | more than likely       | Residential              | 50 Dwellings                                     | North Weald Bassett  | 545881   | 207890   | 50                     | 50                     |           |                   |
| Harlow        | 383     | 197          | SR-0146 Land East of Harlow, North of Church Langley and South of Sheering Road; Large strategic site on edge of Harlow, with only part of site within Epping Forest DC. Assume 420 pupil primary school | Reasonably Foreseeable | Mixed                    | 2000 dwellings across both districts Log ref 325 | Greater Harlow       | 549254   | 211438   | 0                      | 1500                   |           |                   |
| Epping Forest | 384     | 181          | SR-0157 Mount Pleasant House, Harlow Road, Roydon, Essex   | more than likely       | Residential              | 60 Dwellings                                     | Roydon               | 541396   | 210121   | 60                     | 60                     |           |                   |
| Epping Forest | 385     | 204          | SR-0210 The Moores Estate, Church Lane, Roydon, Essex, CM19 5HS  | more than likely       | Residential              | 35 Dwellings                                     | Roydon               | 547077   | 208410   | 35                     | 35                     |           |                   |
| Epping Forest | 386     | 181          | SR-0483 Southfield Nursery, Old House Lane, Roydon, CM19 5DH   | Reasonably Foreseeable | Commercial               | 840m2 commercial                                 | Roydon               | 542046   | 208474   |                        |                        | 336       | B1 Office Average |
| Uttlesford    | 387     | 101          | Gt Chesterford potential land allocation   | Reasonably Foreseeable | Residential              | 3000 or 6000 dwellings                           | Great Chesterford    | 550663   | 242396   |                        |                        |           |                   |
| Uttlesford    | 388     | 107          | Gt Dunmow potential land allocation  | Reasonably Foreseeable | Residential              | 3000 or 6000 dwellings                           | Great Dunmow         | 561763   | 222648   |                        |                        |           |                   |
| Harlow        | 389     | 198          | Peartree Business Centre South Rd. CM20 2BD (PD PrNotice)  | Near Certain           | Residential              | Prior Notification                               | Greater Harlow       | 546274   | 211501   | 24                     | 24                     |           |                   |
| Harlow        | 390     | 203          | Redstone House, Crown gate (PD PrNotice) (superceeds 437/13)   | Near Certain           | Residential              | Prior Notification                               | Greater Harlow       | 544569   | 209750   | 24                     | 24                     |           |                   |
| Harlow        | 391     | 200          | Site at Greenway House, The Parkway, Harlow CM19 5QD   | Reasonably Foreseeable | Residential              | Prior Notification                               | Greater Harlow       | 542186   | 209811   | 48                     | 48                     |           |                   |
| East Herts    | 392     | 167          | High Cross Committed Dev   | Near Certain           | Residential              | Net gain 55 dwellings                            | High Cross           | 536267   | 218424   | 55                     | 55                     |           |                   |

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|------------|---------|--------------|--|--------------------|--------------------------|------------------------------------|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| East Herts | 393     | 171          | Tewin Committed Dev                                | Near Certain       | Residential              | Net gain 44 dwellings              | Tewin                | 527000  | 214500   | 44                     | 44                     |           |                |
| East Herts | 394     | 166          | Bps Stortford Committed Dev (remainder)            | Near Certain       | Residential              | Net gain 225 dwellings             | Bishop's Stortford   | 549500  | 221500   | 225                    | 225                    |           |                |
| East Herts | 395     | 162          | Buntingford Committed Dev                          | Near Certain       | Residential              | Net gain 56 dwellings              | Buntingford          | 536500  | 229500   | 56                     | 56                     |           |                |
| East Herts | 396     | 178          | Land at Marshgate Trading Estate, SG13 7AQ         | Near Certain       | Residential              | 182 dwellings                      | Hertford             | 533112  | 213084   | 182                    | 182                    |           |                |
| East Herts | 398     | 177          | Hertford Police Station, SG13 7HD                  | Near Certain       | Residential              | 85 dwellings                       | Hertford             | 534071  | 213073   | 85                     | 85                     |           |                |
| East Herts | 399     | 178          | Hertford Committed Dev (remainder)                 | Near Certain       | Residential              | 308 dwellings                      | Hertford             | 532500  | 212500   | 308                    | 308                    |           |                |
| East Herts | 400     | 173          | Ware Committed Dev                                 | Near Certain       | Residential              | 196 dwellings                      | Ware                 | 536500  | 214500   | 196                    | 196                    |           |                |
| East Herts | 401     | 162          | Land north of Hare St Rd, Buntingford              | Near Certain       | Residential              | 160 dwellings                      | Buntingford          | 536786  | 229379   | 160                    | 160                    |           |                |
| East Herts | 402     | 163          | Rural Committed in vicinity of Aston/Benington     | Near Certain       | Residential              | 28 dwellings                       | Aston                | 530500  | 223500   | 33                     | 33                     |           |                |
| East Herts | 403     | 105          | Rural Committed in vicinity of Bps Stortford       | Near Certain       | Residential              | 14 dwellings                       | Bishop's Stortford   | 550500  | 222500   | 14                     | 14                     |           |                |
| East Herts | 404     | 179          | Rural Committed in vicinity of Broxbourne          | Near Certain       | Residential              | 11 dwellings                       | Brickendon           | 532000  | 208000   | 18                     | 18                     |           |                |
| East Herts | 405     | 162          | Rural Committed in vicinity of Buntingford/Pelhams | Near Certain       | Residential              | 71 dwellings                       | Buntingford          | 540500  | 229500   | 77                     | 77                     |           |                |
| East Herts | 406     | 167          | Rural Committed in vicinity of Colliers End        | Near Certain       | Residential              | 20 dwellings                       | Colliers End         | 536500  | 220500   | 20                     | 20                     |           |                |

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|------------|---------|--------------|---|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|---|
| East Herts | 407     | 170          | Rural Committed in vicinity of Eastwick/Gilston                 | Near Certain       | Residential              | 3 dwellings   | Eastwick             | 544500  | 212500   | 3                      | 3                      |           |   |
| East Herts | 408     | 170          | Rural Committed in vicinity of Hadhams                          | Near Certain       | Residential              | 34 dwellings  | Much Hadham          | 542500  | 219500   | 36                     | 36                     |           |   |
| East Herts | 409     | 171          | Rural Committed in vicinity of Hertford                         | Near Certain       | Residential              | 14 dwellings  | Hertford             | 529500  | 212500   | 29                     | 29                     |           |   |
| East Herts | 410     | 167          | Rural Committed in vicinity of Puckeridge/Standon               | Near Certain       | Residential              | 44 dwellings  | Puckeridge           | 538500  | 222500   | 47                     | 47                     |           |   |
| East Herts | 411     | 170          | Rural Committed in vicinity of Sawbridgeworth                   | Near Certain       | Residential              | 13 dwellings  | Sawbridgeworth       | 545500  | 216500   | 62                     | 62                     |           |   |
| East Herts | 412     | 170          | Rural Committed in vicinity of Ware                             | Near Certain       | Residential              | 17 dwellings  | Ware                 | 537500  | 215500   | 17                     | 17                     |           |   |
| East Herts | 413     | 163          | Rural Committed in vicinity of Welwyn                           | Near Certain       | Residential              | 9 dwellings   | Welwyn Garden City   | 526500  | 218500   | 9                      | 9                      |           |   |
| Harlow     | 453     | 198          | A414 / Howard Way   | hypothetical       | Highway                  | Dependent on development coming forward   |                      | 545503  | 211448   |                        |                        |           |   |
| Harlow     | 454     | 198          | A414 / Retail Park  | hypothetical       | Highway                  | Dependent on development coming forward   |                      | 545833  | 211626   |                        |                        |           |   |
| Harlow     | 456     | 200          | Public Health England transfer to old GSK site at The Pinnacles | Near Certain       | Commercial               | Ultimately 5-10k jobs, majority with be on EZ; assume 1k new by 2021, then redistribute other allocations to achieve nil job growth by 2036 | Greater Harlow       | 542883  | 209481   |                        |                        |           | ? Jobs defined through professional judgement of likely transfer from current sites |
| Harlow     | 457     | #N/A         | London Rd Closure (except to buses)                             | Near Certain       | Highway                  | Planning obligation (New Hall)  | Harlow               |         |          |                        |                        |           |   |
| Harlow     | 458     | #N/A         | Mark Hall School Drop-off relocation to London Rd               | Near Certain       | Highway                  | Planning obligation (New Hall)  | Harlow               |         |          |                        |                        |           |   |
| Harlow     | 459     | #N/A         | Harlowbury site access/Churchgate St access improvement         | Near Certain       | Highway                  | Planning Obligation (Harlowbury)  | Harlow               |         |          |                        |                        |           |   |

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|----------------------|---------|--------------|---|------------------------|--------------------------|------------------------------------|---------------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| Harlow               | 460     | #N/A         | Mulberry Green LILO   | More than likely       | Highway                  | Planning Obligation (Harlowbury)   | Harlow                    |         |          |                        |                        |           |                |
| Harlow/Epping Forest | 462     | #N/A         | B183 Gilden Way speed reduction (40mph)   | More than likely       | Highway                  | J7a dependent                      | Harlow                    |         |          |                        |                        |           |                |
| Harlow               | 463     | #N/A         | HGV ban through Old Harlow and Churchgate St  | More than likely       | Highway                  | J7a dependent                      | Harlow                    |         |          |                        |                        |           |                |
| South Cambridgeshire | 1001    | 228          | Orchard Park - parcels Q, Com2 & the former HRCC site   | Near Certain           | Residential              |                                    | Orchard Park              |         |          | 65                     | 65                     |           |                |
| South Cambridgeshire | 1002    | 228          | Orchard Park - parcel K1  | More than likely       | Residential              |                                    | Orchard Park              |         |          | 38                     | 38                     |           |                |
| South Cambridgeshire | 1003    | 228          | Orchard Park - parcels L2 & Com 4   | More than likely       | Residential              |                                    | Orchard Park              |         |          | 15                     | 15                     |           |                |
| South Cambridgeshire | 1004    | 132          | North-West Cambridge (University Site)  | Near Certain           | Mixed Use                |                                    | North West Cambridge      |         |          | 665                    | 1,155                  |           |                |
| South Cambridgeshire | 1005    | 132          | Land between Huntingdon Road, Histon Road and the A14 (Darwin Green 2 / NIAB 2 and Darwin Green 3 / NIAB 3) | More than likely       | Residential              |                                    | North West Cambridge      |         |          | 75                     | 1,000                  |           |                |
| South Cambridgeshire | 1006    | 133          | Cambridge East - north of Newmarket Road  | More than likely       | Residential              |                                    | Cambridge East            |         |          | 365                    | 1,300                  |           |                |
| South Cambridgeshire | 1007    | 138          | Cambridge East - north of Cherry Hinton   | More than likely       | Residential              |                                    | Cambridge East            |         |          | 260                    | 420                    |           |                |
| South Cambridgeshire | 1008    | 139          | Trumpington Meadows   | Near Certain           | Residential              |                                    | Cambridge Southern Fringe |         |          | 613                    | 613                    |           |                |
| South Cambridgeshire | 1009    | 225          | Northstowe  | Near Certain           | Mixed Use                |                                    | New Settlement            |         |          | 945                    | 4,695                  |           |                |
| South Cambridgeshire | 1010    | 226          | Waterbeach New Town   | Reasonably Foreseeable | Mixed Use                |                                    | New Settlement            |         |          | 0                      | 3,300                  |           |                |

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|----------------------|---------|--------------|---|------------------------|--------------------------|------------------------------------|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1011    | 241          | Bourn Airfield New Village                    | Reasonably Foreseeable | Mixed Use                |                                    | New Settlement       |         |          | 0                      | 2,110                  |           |                |
| South Cambridgeshire | 1012    | 241          | Cambourne - additional 950 dwellings          | Near Certain           | Residential              |                                    | Cambourne            |         |          | 499                    | 499                    |           |                |
| South Cambridgeshire | 1013    | 232          | Fulbourn & Ida Darwin Hospitals               | Reasonably Foreseeable | Mixed Use                |                                    | Fulbourn             |         |          | 230                    | 230                    |           |                |
| South Cambridgeshire | 1014    | 242          | Papworth West-Central - south of Church Lane  | Near Certain           | Mixed Use                |                                    | Papworth Everard     |         |          | 66                     | 66                     |           |                |
| South Cambridgeshire | 1015    | 242          | Papworth West-Central - Catholic Church site  | Hypothetical           | Residential              |                                    | Papworth Everard     |         |          | 0                      | 0                      |           |                |
| South Cambridgeshire | 1016    | 235          | Former Bayer CropScience site, Hauxton        | Near Certain           | Mixed Use                |                                    | Hauxton              |         |          | 285                    | 285                    |           |                |
| South Cambridgeshire | 1017    | 242          | West of Ermine Street South, Papworth Everard | Near Certain           | Residential              |                                    | Papworth Everard     |         |          | 50                     | 50                     |           |                |
| South Cambridgeshire | 1018    | 241          | Cambourne West                                | More than likely       | Residential              |                                    | Cambourne            |         |          | 350                    | 1,200                  |           |                |
| South Cambridgeshire | 1019    | 236          | Dales Manor Business Park, Sawston            | Reasonably Foreseeable | Mixed Use                |                                    | Sawston              |         |          | 150                    | 200                    |           |                |
| South Cambridgeshire | 1020    | 236          | Land north of Babraham Road, Sawston          | More than likely       | Residential              |                                    | Sawston / Babraham   |         |          | 80                     | 80                     |           |                |
| South Cambridgeshire | 1021    | 236          | Land south of Babraham Road, Sawston          | Reasonably Foreseeable | Residential              |                                    | Sawston / Babraham   |         |          | 160                    | 260                    |           |                |
| South Cambridgeshire | 1022    | 228          | Land north of Impington Lane, Impington       | Reasonably Foreseeable | Residential              |                                    | Histon & Impington   |         |          | 25                     | 25                     |           |                |
| South Cambridgeshire | 1023    | 239          | Land west of New Road, Melbourn               | Near Certain           | Residential              |                                    | Melbourn             |         |          | 82                     | 82                     |           |                |

| DISTRICT             | Log Ref | WYG Zone ref | SCHEME DESCRIPTION  | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|----------------------|---------|--------------|---|------------------------|--------------------------|------------------------------------|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1024    | 234          | Green End Industrial Estate, Gamlingay                            | Reasonably Foreseeable | Mixed Use                |                                    | Gamlingay            |         |          | 90                     | 90                     |           |                |
| South Cambridgeshire | 1025    | 223          | East of Rockmill End, Willingham                                  | Reasonably Foreseeable | Residential              |                                    | Willingham           |         |          | 50                     | 50                     |           |                |
| South Cambridgeshire | 1026    | 231          | Land at Bennell Farm, West Street, Comberton                      | More than likely       | Residential              |                                    | Comberton / Toft     |         |          | 90                     | 90                     |           |                |
| South Cambridgeshire | 1027    | 238          | Land at Linton Road, Great Abington                               | Reasonably Foreseeable | Residential              |                                    | Great Abington       |         |          | 35                     | 35                     |           |                |
| South Cambridgeshire | 1028    | 238          | Land at junction of High Street & Pampisford Road, Great Abington | More than likely       | Residential              |                                    | Great Abington       |         |          | 12                     | 12                     |           |                |
| South Cambridgeshire | 1029    | 238          | Land at Bancroft Farm, Church Lane, Little Abington               | Reasonably Foreseeable | Residential              |                                    | Little Abington      |         |          | 6                      | 6                      |           |                |
| South Cambridgeshire | 1030    | 238          | Land at Toseland Road, Graveley                                   | Reasonably Foreseeable | Residential              |                                    | Graveley             |         |          | 6                      | 6                      |           |                |
| South Cambridgeshire | 1031    | 235          | Land at Moores Farm, Fowlmere Road, Foxton                        | Near Certain           | Residential              |                                    | Foxton               |         |          | 15                     | 15                     |           |                |
| South Cambridgeshire | 1032    | 234          | Land west of 22a West Road, Gamlingay                             | Near Certain           | Residential              |                                    | Gamlingay            |         |          | 10                     | 10                     |           |                |
| South Cambridgeshire | 1033    | 223          | 57 Brickhills, Willingham   | Near Certain           | Residential              |                                    | Willingham           |         |          | 19                     | 19                     |           |                |
| South Cambridgeshire | 1034    | 234          | Land south of Station Road, Gamlingay                             | Near Certain           | Residential              |                                    | Gamlingay            |         |          | 14                     | 14                     |           |                |
| South Cambridgeshire | 1035    | 224          | Land at junction of Long Drove & Beech Road, Cottenham            | Near Certain           | Residential              |                                    | Cottenham            |         |          | 25                     | 25                     |           |                |
| South Cambridgeshire | 1036    | 239          | 31 The Moor, Melbourn   | Near Certain           | Residential              |                                    | Melbourn             |         |          | 11                     | 11                     |           |                |

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|----------------------|---------|--------------|---|--------------------|--------------------------|------------------------------------|-----------------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1037    | 229          | Land at Former EDF Energy Depot & Training Centre, Ely Road, Milton | Hypothetical       | Residential              |                                    | Milton                      |         |          | 0                      | 0                      |           |                |
| South Cambridgeshire | 1038    | 236          | Former John Falkner Infants School, The Baulks, Sawston             | Near Certain       | Residential              |                                    | Sawston                     |         |          | 9                      | 9                      |           |                |
| South Cambridgeshire | 1039    | 231          | Land at Church Street, Great Eversden                               | Near Certain       | Residential              |                                    | Great Eversden              |         |          | 10                     | 10                     |           |                |
| South Cambridgeshire | 1040    | 233          | Land at London Road, Great Shelford & Granta Terrace, Stapleford    | Near Certain       | Residential              |                                    | Great Shelford / Stapleford |         |          | 58                     | 58                     |           |                |
| South Cambridgeshire | 1041    | 226          | Land west of Cody Road, Waterbeach                                  | Near Certain       | Residential              |                                    | Waterbeach                  |         |          | 60                     | 60                     |           |                |
| South Cambridgeshire | 1042    | 226          | Land north of Bannold Road, Waterbeach                              | Near Certain       | Residential              |                                    | Waterbeach                  |         |          | 90                     | 90                     |           |                |
| South Cambridgeshire | 1043    | 239          | Showmans Site, Biddall's Boulevard, Kneesworth Road, Meldreth       | Hypothetical       | Travelling Showpeople    |                                    | Meldreth                    |         |          | 0                      | 0                      |           |                |
| South Cambridgeshire | 1044    | 225          | Land north of Fen Drayton Road, Swavesey                            | Near Certain       | Residential              |                                    | Swavesey                    |         |          | 20                     | 20                     |           |                |
| South Cambridgeshire | 1045    | 225          | Land rear of Cygnus Business Park, Swavesey                         | Near Certain       | Residential              |                                    | Swavesey                    |         |          | 12                     | 12                     |           |                |
| South Cambridgeshire | 1046    | 238          | Granta Processors, Mill Lane, Whittlesford                          | Near Certain       | Residential              |                                    | Whittlesford                |         |          | 16                     | 16                     |           |                |
| South Cambridgeshire | 1047    | 226          | Land at Bannold Road & Bannold Drove, Waterbeach                    | Near Certain       | Residential              |                                    | Waterbeach                  |         |          | 57                     | 57                     |           |                |
| South Cambridgeshire | 1048    | 237          | Newdigate House, 3 Horseheath Road, Linton                          | Near Certain       | Residential              |                                    | Linton                      |         |          | 11                     | 11                     |           |                |
| South Cambridgeshire | 1049    | 226          | Land to the east of Cody Road & north of Bannold Road, Waterbeach   | Near Certain       | Residential              |                                    | Waterbeach                  |         |          | 36                     | 36                     |           |                |

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|----------------------|---------|--------------|---|------------------------|--------------------------|---|-----------------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1050    | #N/A         | Small Sites (10 dwellings or less) already Under Construction                     | Near Certain           | Residential              |   | Various                     |         |          | 187                    | 187                    |           |                |
| South Cambridgeshire | 1051    | #N/A         | Small Sites (10 dwellings or less) Not Under Construction                         | Near Certain           | Residential              |   | Various                     |         |          | 242                    | 242                    |           |                |
| South Cambridgeshire | 1052    | 225          | Land west of Longstanton  | Hypothetical           | Residential              |   | Longstanton                 |         |          | 0                      | 0                      |           |                |
| South Cambridgeshire | 1053    | 240          | Land rear of 131 The Causeway, Bassingbourn-cum-Kneesworth                        | More than likely       | Residential              |   | Bassingbourn-cum-Kneesworth |         |          | 20                     | 20                     |           |                |
| South Cambridgeshire | 1054    | 235          | Land adjacent to Hill Farm, Fowlmere Road, Foxton                                 | More than likely       | Residential              |   | Foxton                      |         |          | 15                     | 15                     |           |                |
| South Cambridgeshire | 1055    | 242          | Land at Ermine Street, Caxton   | More than likely       | Residential              |   | Caxton                      |         |          | 10                     | 10                     |           |                |
| South Cambridgeshire | 1056    | 234          | Former CEMEX Cement Works, Haslingfield Road, Barrington                          | More than likely       | Residential              |   | Barrington                  |         |          | 220                    | 220                    |           |                |
| South Cambridgeshire | 1057    | 223          | Land north of Daniels Close, Willingham   | More than likely       | Residential              |   | Willingham                  |         |          | 12                     | 12                     |           |                |
| South Cambridgeshire | 1058    | #N/A         | Unidentified' Windfall Sites  | Reasonably Foreseeable | Residential              |   | Various                     |         |          | 450                    | 3,450                  |           |                |
| South Cambridgeshire | 1059    | 224          | King George V Playing Fields, Lambs Lane, Cottenham, Cambridgeshire               | Near Certain           | Employment               | Erection of new sports pavilion and associated external works   | COTTENHAM                   |         |          |                        |                        | 1125.332  | D2             |
| South Cambridgeshire | 1060    | 229          | Land adj and north west of, Milton Country Park, Fen Road, Milton, Cambridge, CB4 | Near Certain           | Employment               | C/u of Land to Create a Multi-Sport Park, Construction of Lakes with Water Storage, Canal, New and Changed Roads, Cycling and BMX Tracks, Bridges (3), Engineering Operations, Embankments and Landscaping and Outline Permission to Construct a Sports Centr | WATERBEACH                  |         |          |                        |                        | 0         | D2             |
| South Cambridgeshire | 1061    | 237          | 37-39 HIGH STREET, LINTON, CAMBRIDGE, CB21 4HS                                    | Near Certain           | Employment               | External alterations and change of use from retail units with residential above to one single residential unit  | LINTON                      |         |          |                        |                        | -62.8     | RTD            |
| South Cambridgeshire | 1062    | 237          | 37-39 HIGH STREET, LINTON, CAMBRIDGE, CB21 4HS                                    | Near Certain           | Employment               | External alterations and change of use from retail units with residential above to one single residential unit  | LINTON                      |         |          |                        |                        | -16.8     | RTD            |



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|----------------------|---------|--------------|---|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1063    | 228          | Mereway Farm, Milton Road, Impington, CAMBRIDGE, CB24 9NG                 | Near Certain       | Employment               | Mezzanine Floor in Units 1 & 2 and Additional Car Parking   | MILTON               |         |          |                        |                        | 0         | B1a            |
| South Cambridgeshire | 1064    | 223          | 17-19, Norman Way Industrial Estate Norman Way, Over, CAMBRIDGE, CB24 5QE | Near Certain       | Employment               | Change of use of unit from B2 industrial to D2 assembly and leisure for gym/studio and martial arts classes   | OVER                 |         |          |                        |                        | -63.6     | B2             |
| South Cambridgeshire | 1065    | 223          | 17-19, Norman Way Industrial Estate Norman Way, Over, CAMBRIDGE, CB24 5QE | Near Certain       | Employment               | Change of use of unit from B2 industrial to D2 assembly and leisure for gym/studio and martial arts classes   | OVER                 |         |          |                        |                        | 63.6      | D2             |
| South Cambridgeshire | 1066    | 139          | Land at, Trumpington Park & Ride, Hauxton Road, Cambridge, CB2            | Near Certain       | Employment               | Demolition of Existing Buildings and Structures and Redevelopment for Approx 600 Dwellings. Land for a Primary School, Recreation / Leisure Uses Including Change of Use from Agriculture to Public Open Space, Community and other Local Facilities with Ass | HASLINGFIELD         |         |          |                        |                        | -12400    | B1b            |
| South Cambridgeshire | 1067    | 139          | Land at, Trumpington Park & Ride, Hauxton Road, Cambridge, CB2            | Near Certain       | Employment               | Demolition of Existing Buildings and Structures and Redevelopment for Approx 600 Dwellings. Land for a Primary School, Recreation / Leisure Uses Including Change of Use from Agriculture to Public Open Space, Community and other Local Facilities with Ass | HASLINGFIELD         |         |          |                        |                        | 100       | RTU            |
| South Cambridgeshire | 1068    | 139          | Land at, Trumpington Park & Ride, Hauxton Road, Cambridge, CB2            | Near Certain       | Employment               | Demolition of Existing Buildings and Structures and Redevelopment for Approx 600 Dwellings. Land for a Primary School, Recreation / Leisure Uses Including Change of Use from Agriculture to Public Open Space, Community and other Local Facilities with Ass | HASLINGFIELD         |         |          |                        |                        | 130       | D1             |
| South Cambridgeshire | 1069    | 236          | Land at Sawston Business Park, MILL LANE, SAWSTON                         | Near Certain       | Employment               | Phase 2 - Redevelopment of Land at Sawston Business Park for a Mixed B1(c), B2, B8 Scheme and Associated Infrastructure   | SAWSTON              |         |          |                        |                        | -14080    | B2             |
| South Cambridgeshire | 1070    | 236          | Land at Sawston Business Park, MILL LANE, SAWSTON                         | Near Certain       | Employment               | Phase 2 - Redevelopment of Land at Sawston Business Park for a Mixed B1(c), B2, B8 Scheme and Associated Infrastructure   | SAWSTON              |         |          |                        |                        | -1520     | B1a            |
| South Cambridgeshire | 1071    | 236          | Land at Sawston Business Park, MILL LANE, SAWSTON                         | Near Certain       | Employment               | Phase 2 - Redevelopment of Land at Sawston Business Park for a Mixed B1(c), B2, B8 Scheme and Associated Infrastructure   | SAWSTON              |         |          |                        |                        | 5200      | B1c            |
| South Cambridgeshire | 1072    | 236          | Land at Sawston Business Park, MILL LANE, SAWSTON                         | Near Certain       | Employment               | Phase 2 - Redevelopment of Land at Sawston Business Park for a Mixed B1(c), B2, B8 Scheme and Associated Infrastructure   | SAWSTON              |         |          |                        |                        | 5200      | B2             |
| South Cambridgeshire | 1073    | 236          | Land at Sawston Business Park, MILL LANE, SAWSTON                         | Near Certain       | Employment               | Phase 2 - Redevelopment of Land at Sawston Business Park for a Mixed B1(c), B2, B8 Scheme and Associated Infrastructure   | SAWSTON              |         |          |                        |                        | 5200      | B8             |
| South Cambridgeshire | 1074    | 239          | 104, High Street, Meldreth, ROYSTON, SG8 6LB                              | Near Certain       | Employment               | Erection of new commercial unit, conversion of existing barn into 2 no. residential units   | MELDRETH             |         |          |                        |                        | 639.48    | B2             |
| South Cambridgeshire | 1075    | 236          | 187-189, High Street, Sawston, CAMBRIDGE, CB22 3HJ                        | Near Certain       | Employment               | External Alterations and Change of Use of existing building to Office (Ground Floor) and Two Flats (First Floor)  | SAWSTON              |         |          |                        |                        | -373.924  | D1             |

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|----------------------|---------|--------------|--|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1076    | 236          | 187-189, High Street, Sawston, CAMBRIDGE, CB22 3HJ                 | Near Certain       | Employment               | External Alterations and Change of Use of existing building to Office (Ground Floor) and Two Flats (First Floor)  | SAWSTON              |         |          |                        |                        | 374       | B1a            |
| South Cambridgeshire | 1077    | 232          | The Memorial Hall, ANGLE END, GREAT WILBRAHAM, CAMBRIDGE, CB21 5JG | Near Certain       | Employment               | Demolition of existing single storey main hall and ancillary accommodation, refurbishment and alterations to existing two storey building and the construction of a new separate community hall with meeting room and support areas. Extension to car park. | GREAT WILBRAHAM      |         |          |                        |                        | -535.571  | D2             |
| South Cambridgeshire | 1078    | 232          | The Memorial Hall, ANGLE END, GREAT WILBRAHAM, CAMBRIDGE, CB21 5JG | Near Certain       | Employment               | Demolition of existing single storey main hall and ancillary accommodation, refurbishment and alterations to existing two storey building and the construction of a new separate community hall with meeting room and support areas. Extension to car park. | GREAT WILBRAHAM      |         |          |                        |                        | 535.5711  | D2             |
| South Cambridgeshire | 1079    | 239          | 1-3 STATION ROAD, MELBOURN, ROYSTON, SG8 6DX                       | Near Certain       | Employment               | The demolition of existing stores and construction of new food processing building, with associated changes to existing retail premises and boundary walls. Change of use to provide A3 consumption of food and drink on the premises                       | MELBOURN             |         |          |                        |                        | -820.987  | B2             |
| South Cambridgeshire | 1080    | 239          | 1-3 STATION ROAD, MELBOURN, ROYSTON, SG8 6DX                       | Near Certain       | Employment               | The demolition of existing stores and construction of new food processing building, with associated changes to existing retail premises and boundary walls. Change of use to provide A3 consumption of food and drink on the premises                       | MELBOURN             |         |          |                        |                        | 149.2     | A3             |
| South Cambridgeshire | 1081    | 239          | 1-3 STATION ROAD, MELBOURN, ROYSTON, SG8 6DX                       | Near Certain       | Employment               | The demolition of existing stores and construction of new food processing building, with associated changes to existing retail premises and boundary walls. Change of use to provide A3 consumption of food and drink on the premises                       | MELBOURN             |         |          |                        |                        | 671.6     | B2             |
| South Cambridgeshire | 1082    | 225          | Buckingway Business Park, ANDERSON ROAD, SWAVESEY                  | Near Certain       | Employment               | Erection of 15 B1(C), B2 & B8 Units (Including 9 Terraced) with Ancillary Offices, Service Yards, Car Parking & Landscaping and the Erection of 4 Terraced B1(a) Office Units with Ancillary Car Parking and Landscaping                                    | SWAVESEY             |         |          |                        |                        | 1181.944  | B1a            |
| South Cambridgeshire | 1083    | 225          | Buckingway Business Park, ANDERSON ROAD, SWAVESEY                  | Near Certain       | Employment               | Erection of 15 B1(C), B2 & B8 Units (Including 9 Terraced) with Ancillary Offices, Service Yards, Car Parking & Landscaping and the Erection of 4 Terraced B1(a) Office Units with Ancillary Car Parking and Landscaping                                    | SWAVESEY             |         |          |                        |                        | 3250.348  | B2             |
| South Cambridgeshire | 1084    | 225          | Buckingway Business Park, ANDERSON ROAD, SWAVESEY                  | Near Certain       | Employment               | Erection of 15 B1(C), B2 & B8 Units (Including 9 Terraced) with Ancillary Offices, Service Yards, Car Parking & Landscaping and the Erection of 4 Terraced B1(a) Office Units with Ancillary Car Parking and Landscaping                                    | SWAVESEY             |         |          |                        |                        | 3250.348  | B8             |
| South Cambridgeshire | 1085    | 225          | Buckingway Business Park, ANDERSON ROAD, SWAVESEY                  | Near Certain       | Employment               | Erection of 15 B1(C), B2 & B8 Units (Including 9 Terraced) with Ancillary Offices, Service Yards, Car Parking & Landscaping and the Erection of 4 Terraced B1(a) Office Units with Ancillary Car Parking and Landscaping                                    | SWAVESEY             |         |          |                        |                        | 3250.348  | B1c            |
| South Cambridgeshire | 1086    | 242          | 4, The Causeway, Elsworth, CAMBRIDGE, CB23 4HT                     | Near Certain       | Employment               | Demolition of unlisted post office building and erection of two bedroom dwelling  | ELSWORTH             |         |          |                        |                        | -168      | RTC            |
| South Cambridgeshire | 1087    | 242          | 4, The Causeway, Elsworth, CAMBRIDGE, CB23 4HT                     | Near Certain       | Employment               | Demolition of unlisted post office building and erection of two bedroom dwelling  | ELSWORTH             |         |          |                        |                        | -73.08    | RTC            |
| South Cambridgeshire | 1088    | 229          | Plots 420, 430 and 440, Phase VI Cambridge Science Park, Cambridge | Near Certain       | Employment               | Erection of three buildings totalling 13,800sq.m of B1a and B1b floorspace on Plots 420, 430 & 440 of Phase VI of Cambridge Science Park.   | MILTON               |         |          |                        |                        | 1260      | B1b            |

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|----------------------|---------|--------------|---|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1089    | 229          | Plots 420, 430 and 440, Phase VI Cambridge Science Park, Cambridge      | Near Certain       | Employment               | Erection of three buildings totalling 13,800sq.m of B1a and B1b floorspace on Plots 420, 430 & 440 of Phase VI of Cambridge Science Park. | MILTON               |         |          |                        |                        | 4460      | B1a            |
| South Cambridgeshire | 1090    | 232          | Fleam Dyke Pumping Station, Balsham Road, Fulbourn, CAMBRIDGE, CB21 5DA | Near Certain       | Employment               | Erection of Nitrate Removal Plant Building, Four Tanks, Bund and Hardstanding (Revised Design)  | FULBOURN             |         |          |                        |                        | 0         | B2             |
| South Cambridgeshire | 1091    | 225          | 33, Water Lane, Oakington, CAMBRIDGE, CB24 3AL                          | Near Certain       | Employment               | Conversion of Adjoining Outbuilding & Change of Use to guest house (C4)   | OAKINGTON            |         |          |                        |                        | 506.8     | C1             |
| South Cambridgeshire | 1092    | 232          | 26, Toft Lane, Great Wilbraham, Cambridge, Cambridgeshire, CB21 5JH     | Near Certain       | Employment               | Demolition of Builders Yard and Erection of Dwelling  | GREAT WILBRAHAM      |         |          |                        |                        | -110.828  | B1c            |
| South Cambridgeshire | 1093    | 237          | 108, High Street, Linton, Cambridgeshire, CB21 4JT                      | Near Certain       | Employment               | Change of Use from Dental Practice to a Dwelling  | LINTON               |         |          |                        |                        | -84.716   | D1             |
| South Cambridgeshire | 1094    | 231          | Cambridge Meridian Golf Club, COMBERTON ROAD, TOFT                      | Near Certain       | Employment               | Erection of overnight accommodation and extension to existing clubhouse   | TOFT                 |         |          |                        |                        | 934.9131  | C1             |
| South Cambridgeshire | 1095    | 231          | Cambridge Meridian Golf Club, COMBERTON ROAD, TOFT                      | Near Certain       | Employment               | Erection of overnight accommodation and extension to existing clubhouse   | TOFT                 |         |          |                        |                        | 0         | D2             |
| South Cambridgeshire | 1096    | 237          | 2, High Street, Linton, CAMBRIDGE, CB21 4HS                             | Near Certain       | Employment               | Change of Use from a Dwelling to a Dental Practice  | LINTON               |         |          |                        |                        | 226.8     | D1             |
| South Cambridgeshire | 1097    | 231          | 147 St Neots Road, Hardwick, Cambridgeshire, CB23 7QJ                   | Near Certain       | Employment               | Proposed mixed use development of hotel, restaurant & takeaway and associated works   | HARDWICK             |         |          |                        |                        | -326.4    | B1a            |
| South Cambridgeshire | 1098    | 231          | 147 St Neots Road, Hardwick, Cambridgeshire, CB23 7QJ                   | Near Certain       | Employment               | Proposed mixed use development of hotel, restaurant & takeaway and associated works   | HARDWICK             |         |          |                        |                        | -233.2    | A3             |
| South Cambridgeshire | 1099    | 231          | 147 St Neots Road, Hardwick, Cambridgeshire, CB23 7QJ                   | Near Certain       | Employment               | Proposed mixed use development of hotel, restaurant & takeaway and associated works   | HARDWICK             |         |          |                        |                        | -37.2     | A5             |
| South Cambridgeshire | 1100    | 231          | 147 St Neots Road, Hardwick, Cambridgeshire, CB23 7QJ                   | Near Certain       | Employment               | Proposed mixed use development of hotel, restaurant & takeaway and associated works   | HARDWICK             |         |          |                        |                        | 12.4      | A5             |
| South Cambridgeshire | 1101    | 231          | 147 St Neots Road, Hardwick, Cambridgeshire, CB23 7QJ                   | Near Certain       | Employment               | Proposed mixed use development of hotel, restaurant & takeaway and associated works   | HARDWICK             |         |          |                        |                        | 56.8      | A3             |

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|----------------------|---------|--------------|---|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1102    | 231          | 147 St Neots Road, Hardwick, Cambridgeshire, CB23 7QJ   | Near Certain       | Employment               | Proposed mixed use development of hotel, restaurant & takeaway and associated works   | HARDWICK             |         |          |                        |                        | 115.6     | D2             |
| South Cambridgeshire | 1103    | 231          | 147 St Neots Road, Hardwick, Cambridgeshire, CB23 7QJ   | Near Certain       | Employment               | Proposed mixed use development of hotel, restaurant & takeaway and associated works   | HARDWICK             |         |          |                        |                        | 411.6     | C1             |
| South Cambridgeshire | 1104    | 229          | Suite 5, 23 CAMBRIDGE SCIENCE PARK, MILTON, CAMBRIDGE, CB4 0EY  | Near Certain       | Employment               | Erection of 296 bedroom hotel (C1) following demolition of existing health club (D2) and Offices (B1). Change of use of existing Trinity Centre (D2) to hotel facilities (C1) with connection to hotel for associated restaurant, bar and meeting rooms along | MILTON               |         |          |                        |                        | 6631.2    | C1             |
| South Cambridgeshire | 1105    | 237          | Dotterell Hall, CAMBRIDGE ROAD, BALSHAM, CAMBRIDGE, CB21 4HE  | Near Certain       | Employment               | Conversion of barns for B1a office use and erection of new office building (extension of time limit for implementation of planning permission reference 5/0652/08F)   | BALSHAM              |         |          |                        |                        | 3522.971  | B1a            |
| South Cambridgeshire | 1106    | 237          | Dotterell Hall Farm, CAMBRIDGE ROAD, BALSHAM  | Near Certain       | Employment               | Conversion of barns for B1a office use and erection of new office building (extension of time limit for implementation of planning permission reference 5/0652/08F)   | BALSHAM              |         |          |                        |                        | 264.4736  | B1a            |
| South Cambridgeshire | 1107    | 239          | The Plough, 12, High Street, SHEPRETH, SG8 6PP  | Near Certain       | Employment               | Alterations and Extensions - Change of Use from A3 to A4  | SHEPRETH             |         |          |                        |                        | -101.378  | A3             |
| South Cambridgeshire | 1108    | 239          | The Plough, 12, High Street, SHEPRETH, SG8 6PP  | Near Certain       | Employment               | Alterations and Extensions - Change of Use from A3 to A4  | SHEPRETH             |         |          |                        |                        | 101.2     | A4             |
| South Cambridgeshire | 1109    | 240          | Steeple Morden Tennis Club, Recreation Ground, Steeple Morden, Cambridgeshire, SG8 0PE                                    | Near Certain       | Employment               | Replacement Clubhouse   | STEEPLE MORDEN       |         |          |                        |                        | -1252.2   | D2             |
| South Cambridgeshire | 1110    | 240          | Steeple Morden Tennis Club, Recreation Ground, Steeple Morden, Cambridgeshire, SG8 0PE                                    | Near Certain       | Employment               | Replacement Clubhouse   | STEEPLE MORDEN       |         |          |                        |                        | 1252      | D2             |
| South Cambridgeshire | 1111    | 226          | Defences Estates, Stirling House, Denny End Road, Waterbeach, Cambridge CB25 9QE  | Near Certain       | Employment               | Alterations to convert four escape turrets into offices, and erection of external spiral staircases to each turret.   | WATERBEACH           |         |          |                        |                        | 0         | B1a            |
| South Cambridgeshire | 1112    | 225          | West Goods Yard, STATION ROAD, OAKINGTON AND WESTWICK, CAMBRIDGE, CB24 3AH  | Near Certain       | Employment               | Construction of B1(a) office building together with associated landscaping car parking and sustainable urban drainage   | OAKINGTON            |         |          |                        |                        | 1323.972  | B1a            |
| South Cambridgeshire | 1113    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services)     | LONGSTANTON          |         |          |                        |                        | 190       | A2             |
| South Cambridgeshire | 1114    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services)     | LONGSTANTON          |         |          |                        |                        | 190       | A3             |

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|----------------------|---------|--------------|---|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1115    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 190       | A4             |
| South Cambridgeshire | 1116    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 190       | A5             |
| South Cambridgeshire | 1117    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 24680     | D2             |
| South Cambridgeshire | 1118    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 1440      | B8             |
| South Cambridgeshire | 1119    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 2560      | RTU            |
| South Cambridgeshire | 1120    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 600       | C2             |
| South Cambridgeshire | 1121    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 13560     | D1             |
| South Cambridgeshire | 1122    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 5840      | B2             |
| South Cambridgeshire | 1123    | 225          | Land South of Longstanton Park and Ride and adjacent to B1050 at Station Road, Longstanton and Hatton's Road, Longstanton | Near Certain       | Employment               | Outline planning application for phase 1 of Northstowe comprising up to 1,500 dwellings; a primary school; a mixed-use local centre (including a community building, and provision for non-residential institutions, financial and professional services) | LONGSTANTON          |         |          |                        |                        | 7280      | B1             |
| South Cambridgeshire | 1124    | 238          | Hexcel Composites, Hexcel Chemical Works, Hinxtton Road, Duxford, CAMBRIDGE, CB22 4SD                                     | Near Certain       | Employment               | Erection of a portable building to provide staff restaurant and occupation health facilities.   | DUXFORD              |         |          |                        |                        | 0         | B2             |
| South Cambridgeshire | 1125    | 225          | THE SIDINGS, STATION ROAD, LONGSTANTON, CAMBRIDGESHIRE  | Near Certain       | Employment               | Extension to existing offices   | LONGSTANTON          |         |          |                        |                        | 0         | B1a            |
| South Cambridgeshire | 1126    | 238          | Aircraft Restoration Co, Building 425, Duxford Airfield, Duxford, Cambridge, CB22 4QR, Duxford, Cambridgeshire, CB22 4QR  | Near Certain       | Employment               | Erection of Hangar for Aircraft Repair and Restoration  | DUXFORD              |         |          |                        |                        | 2658.464  | B2             |
| South Cambridgeshire | 1127    | 231          | The Scout & Guide Headquarters, Egremont Road, Hardwick, CAMBRIDGE, CB23 7XR  | Near Certain       | Employment               | Erection of a Guide & Scout Building following Demolition of Existing Structure   | HARDWICK             |         |          |                        |                        | -294.4    | D2             |

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|----------------------|---------|--------------|---|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1128    | 231          | The Scout & Guide Headquarters, Egremont Road, Hardwick, CAMBRIDGE, CB23 7XR          | Near Certain       | Employment               | Erection of a Guide & Scout Building following Demolition of Existing Structure   | HARDWICK             |         |          |                        |                        | 294.4     | D2             |
| South Cambridgeshire | 1129    | 224          | Curry Palace, 215, High Street, Cottenham, CAMBRIDGE, CB24 8QP                        | Near Certain       | Employment               | Ground floor extension to restaurant  | COTTENHAM            |         |          |                        |                        | 275.2     | A3             |
| South Cambridgeshire | 1130    | 235          | 46 High Street Foxton, Cambridge, CB22 6RP  | Near Certain       | Employment               | Change of use from residential dwelling to tea room business (A3) at ground floor and non-food retail use at first floor (A1) with proposed widening of gate and external signage   | FOXTON               |         |          |                        |                        | 48        | RTD            |
| South Cambridgeshire | 1131    | 233          | 176-178 CAMBRIDGE ROAD, GREAT SHELFORD, CAMBRIDGE, CB22 5RY                           | Near Certain       | Employment               | Erection of 70 Bedroom Residential Care Home with Ancillary Accommodation, Car Parking & Landscaping following Demolition of Existing Vehicle Showroom & Maintenance Garage   | GREAT SHELFORD       |         |          |                        |                        | 1830.79   | C2             |
| South Cambridgeshire | 1132    | 228          | Spire, Cambridge Lea Hospital, 30, New Road, Impington, CAMBRIDGE, CB24 9EL           | Near Certain       | Employment               | Ground and first floor extensions; new canopy over main entrance; new external steel staircase to the north elevation; and Extension and alteration of the car park   | HISTON & IMPINGTON   |         |          |                        |                        | 0         | C2             |
| South Cambridgeshire | 1133    | 242          | Land between Church Lane & Ermine Street South, Papworth Everard, CAMBRIDGE, CB23 3RG | Near Certain       | Employment               | Outline planning permission for the demolition of existing buildings & the erection of up to 58 dwellings (Class C3) access, car parking & associated works, open space, landscaping & a children's play area, all matters reserved except for access | PAPWORTH EVERARD     |         |          |                        |                        | -8474.4   | D1             |
| South Cambridgeshire | 1134    | 242          | Land between Church Lane & Ermine Street South, Papworth Everard, CAMBRIDGE, CB23 3RG | Near Certain       | Employment               | Outline planning permission for the demolition of existing buildings & the erection of up to 58 dwellings (Class C3) access, car parking & associated works, open space, landscaping & a children's play area, all matters reserved except for access | PAPWORTH EVERARD     |         |          |                        |                        | 9.72      | B1             |
| South Cambridgeshire | 1135    | 242          | Land between Church Lane & Ermine Street South, Papworth Everard, CAMBRIDGE, CB23 3RG | Near Certain       | Employment               | Outline planning permission for the demolition of existing buildings & the erection of up to 58 dwellings (Class C3) access, car parking & associated works, open space, landscaping & a children's play area, all matters reserved except for access | PAPWORTH EVERARD     |         |          |                        |                        | 29.16     | B2             |
| South Cambridgeshire | 1136    | 242          | Land between Church Lane & Ermine Street South, Papworth Everard, CAMBRIDGE, CB23 3RG | Near Certain       | Employment               | Outline planning permission for the demolition of existing buildings & the erection of up to 58 dwellings (Class C3) access, car parking & associated works, open space, landscaping & a children's play area, all matters reserved except for access | PAPWORTH EVERARD     |         |          |                        |                        | 32        | A3             |
| South Cambridgeshire | 1137    | 242          | Land between Church Lane & Ermine Street South, Papworth Everard, CAMBRIDGE, CB23 3RG | Near Certain       | Employment               | Outline planning permission for the demolition of existing buildings & the erection of up to 58 dwellings (Class C3) access, car parking & associated works, open space, landscaping & a children's play area, all matters reserved except for access | PAPWORTH EVERARD     |         |          |                        |                        | 32        | A4             |
| South Cambridgeshire | 1138    | 242          | Land between Church Lane & Ermine Street South, Papworth Everard, CAMBRIDGE, CB23 3RG | Near Certain       | Employment               | Outline planning permission for the demolition of existing buildings & the erection of up to 58 dwellings (Class C3) access, car parking & associated works, open space, landscaping & a children's play area, all matters reserved except for access | PAPWORTH EVERARD     |         |          |                        |                        | 32        | A5             |
| South Cambridgeshire | 1139    | 242          | Land between Church Lane & Ermine Street South, Papworth Everard, CAMBRIDGE, CB23 3RG | Near Certain       | Employment               | Outline planning permission for the demolition of existing buildings & the erection of up to 58 dwellings (Class C3) access, car parking & associated works, open space, landscaping & a children's play area, all matters reserved except for access | PAPWORTH EVERARD     |         |          |                        |                        | 59.6      | D2             |
| South Cambridgeshire | 1140    | 238          | Granta Processors, Mill Lane, Whittlesford, CAMBRIDGE, CB22 4XL                       | Near Certain       | Employment               | Outline application for the erection of 16 dwellings following the demolition of existing buildings including footpath link to Lettice Martin Croft   | WHITTLESFORD         |         |          |                        |                        | -2614.8   | B2             |

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|----------------------|---------|--------------|---|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1141    | 226          | Cambridge Research Park, Ely Road, Waterbeach, Cambridge, CB25 9TL                              | Near Certain       | Employment               | Outline application for erection of B1(a) offices and/or B1(b) research & development (not to exceed 31,839m2 GEA); 81(c) light industrial, B2 general industrial, B8 storage & distribution & C1 hotel with the cumulative floorspace of all uses not to exc | LANDBEACH            |         |          |                        |                        | 1184      | B1c            |
| South Cambridgeshire | 1142    | 226          | Cambridge Research Park, Ely Road, Waterbeach, Cambridge, CB25 9TL                              | Near Certain       | Employment               | Outline application for erection of B1(a) offices and/or B1(b) research & development (not to exceed 31,839m2 GEA); 81(c) light industrial, B2 general industrial, B8 storage & distribution & C1 hotel with the cumulative floorspace of all uses not to exc | LANDBEACH            |         |          |                        |                        | 2396      | B2             |
| South Cambridgeshire | 1143    | 226          | Cambridge Research Park, Ely Road, Waterbeach, Cambridge, CB25 9TL                              | Near Certain       | Employment               | Outline application for erection of B1(a) offices and/or B1(b) research & development (not to exceed 31,839m2 GEA); 81(c) light industrial, B2 general industrial, B8 storage & distribution & C1 hotel with the cumulative floorspace of all uses not to exc | LANDBEACH            |         |          |                        |                        | 2396      | B8             |
| South Cambridgeshire | 1144    | 226          | Cambridge Research Park, Ely Road, Waterbeach, Cambridge, CB25 9TL                              | Near Certain       | Employment               | Outline application for erection of B1(a) offices and/or B1(b) research & development (not to exceed 31,839m2 GEA); 81(c) light industrial, B2 general industrial, B8 storage & distribution & C1 hotel   | LANDBEACH            |         |          |                        |                        | 2400      | C1             |
| South Cambridgeshire | 1145    | 226          | Cambridge Research Park, Ely Road, Waterbeach, Cambridge, CB25 9TL                              | Near Certain       | Employment               | Outline application for erection of B1(a) offices and/or B1(b) research & development (not to exceed 31,839m2 GEA); 81(c) light industrial, B2 general industrial, B8 storage & distribution & C1 hotel   | LANDBEACH            |         |          |                        |                        | 4776      | B1a            |
| South Cambridgeshire | 1146    | 226          | Cambridge Research Park, Ely Road, Waterbeach, Cambridge, CB25 9TL                              | Near Certain       | Employment               | Outline application for erection of B1(a) offices and/or B1(b) research & development (not to exceed 31,839m2 GEA); 81(c) light industrial, B2 general industrial, B8 storage & distribution & C1 hotel   | LANDBEACH            |         |          |                        |                        | 6836      | B1b            |
| South Cambridgeshire | 1147    | 240          | Village Hall, HAY STREET, STEEPLE MORDEN, ROYSTON, SG8 0PD                                      | Near Certain       | Employment               | Alteration & extension to provide improvements for accessibility including new entrance area & toilet accommodation & storage area extension.   | STEEPLE MORDEN       |         |          |                        |                        | 0         | D1             |
| South Cambridgeshire | 1148    | 233          | Scotsdale Nursery & Garden Centre Ltd, 120, Cambridge Road, Great Shelford, CAMBRIDGE, CB22 5JT | Near Certain       | Employment               | Application to vary condition 20 of planning reference S/0710/09/F to reduce size of Extension of and alterations to existing buildings and structures; erection of new storage and concessions buildings; reconfiguration of external areas                  | GREAT SHELFORD       |         |          |                        |                        | 0         | RTD            |
| South Cambridgeshire | 1149    | 233          | Scotsdale Nursery & Garden Centre Ltd, 120, Cambridge Road, Great Shelford, CAMBRIDGE, CB22 5JT | Near Certain       | Employment               | Application to vary condition 20 of planning reference S/0710/09/F to reduce size of Extension of and alterations to existing buildings and structures; erection of new storage and concessions buildings; reconfiguration of external areas                  | GREAT SHELFORD       |         |          |                        |                        | 0         | RTD            |
| South Cambridgeshire | 1150    | 233          | Scotsdale Nursery & Garden Centre Ltd, 120, Cambridge Road, Great Shelford, CAMBRIDGE, CB22 5JT | Near Certain       | Employment               | Application to vary condition 20 of planning reference S/0710/09/F to reduce size of Extension of and alterations to existing buildings and structures; erection of new storage and concessions buildings; reconfiguration of external areas                  | GREAT SHELFORD       |         |          |                        |                        | 0         | RTD            |
| South Cambridgeshire | 1151    | 233          | Scotsdale Nursery & Garden Centre Ltd, 120, Cambridge Road, Great Shelford, CAMBRIDGE, CB22 5JT | Near Certain       | Employment               | Application to vary condition 20 of planning reference S/0710/09/F to reduce size of Extension of and alterations to existing buildings and structures; erection of new storage and concessions buildings; reconfiguration of external areas                  | GREAT SHELFORD       |         |          |                        |                        | 0         | RTD            |
| South Cambridgeshire | 1152    | 225          | Land at Mill Farm, MIDDLE WATCH, SWAVESEY   | Near Certain       | Employment               | Erection of Seven New Business Units in Alteration to Planning Permission Ref S/1452/04/F   | SWAVESEY             |         |          |                        |                        | 1655.452  | B1a            |
| South Cambridgeshire | 1153    | 235          | Sarek, Newton Road, Harston, CAMBRIDGE, CB22 7NZ  | Near Certain       | Employment               | Erection of dwelling (including retained cellar) in place of existing office building and erection of replacement garage on existing hard standing  | HARSTON              |         |          |                        |                        | -1309.2   | B1a            |

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|----------------------|---------|--------------|--|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1154    | 235          | Millcam Ltd, Unit B1, Button End, Harston, CAMBRIDGE, CB22 7GX                 | Near Certain       | Employment               | Change of use from B1 (Business) to D2 (Gymnasium)   | HARSTON              |         |          |                        |                        | -64.8     | B1c            |
| South Cambridgeshire | 1155    | 235          | Millcam Ltd, Unit B1, Button End, Harston, CAMBRIDGE, CB22 7GX                 | Near Certain       | Employment               | Change of use from B1 (Business) to D2 (Gymnasium)   | HARSTON              |         |          |                        |                        | 64.8      | D2             |
| South Cambridgeshire | 1156    | 231          | Land rear of 303, St. Neots Road, Hardwick, CAMBRIDGE, CB23 7QL                | Near Certain       | Employment               | Extension and alteration to existing business premises and erection of new dwelling  | HARDWICK             |         |          |                        |                        | -574.4    | B1c            |
| South Cambridgeshire | 1157    | 231          | Land rear of 303, St. Neots Road, Hardwick, CAMBRIDGE, CB23 7QL                | Near Certain       | Employment               | Extension and alteration to existing business premises and erection of new dwelling  | HARDWICK             |         |          |                        |                        | 574.4     | B1c            |
| South Cambridgeshire | 1158    | 236          | Water Tower, BABRAHAM ROAD, SAWSTON, CAMBRIDGESHIRE, CB22 3DQ                  | Near Certain       | Employment               | Erection of building (Glass Reinforced Plastic) to house water treatment facility  | SAWSTON              |         |          |                        |                        | 400       | Sui Generis    |
| South Cambridgeshire | 1159    | 229          | Johnson Matthey, 28, Science Park Milton Road, CAMBRIDGE, CB4 0FP              | Near Certain       | Employment               | Proposed extension, cycle parking, erection of plant compound and landscaping  | MILTON               |         |          |                        |                        | 0         | B1b            |
| South Cambridgeshire | 1160    | 226          | 7120, Cambridge Research Park, Beach Drive, LANDBEACH, CB25 9TL                | Near Certain       | Employment               | Reserved Matters (of S/0678/12/OL) - Details of layout, appearance, landscaping, scale and access to and from Beach Drive in relation to the erection of B1(a) office building.  | LANDBEACH            |         |          |                        |                        | 4958.4    | B1a            |
| South Cambridgeshire | 1161    | 232          | M And S Autos, COXS DROVE, FULBOURN, CAMBRIDGE, CB21 5HE                       | Near Certain       | Employment               | Demolition of two existing buildings and construction of one Light Industrial Building.  | FULBOURN             |         |          |                        |                        | -752.543  | Sui Generis    |
| South Cambridgeshire | 1162    | 232          | M And S Autos, COXS DROVE, FULBOURN, CAMBRIDGE, CB21 5HE                       | Near Certain       | Employment               | Demolition of two existing buildings and construction of one Light Industrial Building.  | FULBOURN             |         |          |                        |                        | 752.5435  | B1c            |
| South Cambridgeshire | 1163    | 229          | Glassworld PLC, CAMBRIDGE ROAD, MILTON, CAMBRIDGE, CB24 6AZ                    | Near Certain       | Employment               | Erection of a single storey extension to factory unit  | MILTON               |         |          |                        |                        | 0         | B2             |
| South Cambridgeshire | 1164    | 238          | Scout Hut, Cambridgeshire County Scout Camp Site, CHURCH LANE, LITTLE ABINGTON | Near Certain       | Employment               | Erection of new scout headquarters building, toilet/ shower block and extension to existing training building, and erection of three detached bungalows with covered car parking following demolition of existing buildings. | LITTLE ABINGTON      |         |          |                        |                        | -844      | D2             |
| South Cambridgeshire | 1165    | 238          | Scout Hut, Cambridgeshire County Scout Camp Site, CHURCH LANE, LITTLE ABINGTON | Near Certain       | Employment               | Erection of new scout headquarters building, toilet/ shower block and extension to existing training building, and erection of three detached bungalows with covered car parking following demolition of existing buildings. | LITTLE ABINGTON      |         |          |                        |                        | 844       | D2             |
| South Cambridgeshire | 1166    | 239          | 73 HIGH STREET, MELDRETH, CAMBRIDGESHIRE, SG8 6LB                              | Near Certain       | Employment               | Replacement of Existing Care Home.   | MELDRETH             |         |          |                        |                        | -2058.71  | C2             |



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|----------------------|---------|--------------|--|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1167    | 239          | 73 HIGH STREET, MELDRETH, CAMBRIDGESHIRE, SG8 6LB  | Near Certain       | Employment               | Replacement of Existing Care Home.   | MELDRETH             |         |          |                        |                        | 2058.712  | C2             |
| South Cambridgeshire | 1168    | 239          | Land south of Milestone Farm, Barley Road Flint Cross, GREAT AND LITTLE CHISHILL, SG8 7QD            | Near Certain       | Employment               | Office extension and link with toilets, kitchen facilities and basement  | GREAT CHISHILL       |         |          |                        |                        | 0         | B1a            |
| South Cambridgeshire | 1169    | 242          | 14, Alms Hill, Bourn, CAMBRIDGE, CB23 2SH  | Near Certain       | Employment               | Conversion and rebuilding of redundant outbuildings for office use largely on same footprint.  | BOURN                |         |          |                        |                        | 863.2     | B1a            |
| South Cambridgeshire | 1170    | 242          | Pre Star Ltd, Thyssenkrupp Tallent, Bourn Airfield, St Neots Road, BOURN, CB23 2TQ                   | Near Certain       | Employment               | Proposed Demolition and Replacement Buildings to Provide Class B1, B2 & B8 Uses  | BOURN                |         |          |                        |                        | 37869.6   | B2             |
| South Cambridgeshire | 1171    | 238          | MIGHTON PRODUCTS LTD UK, REAR OF HISTON GRANGE, HINXTON  | Near Certain       | Employment               | Proposed additional warehouse unit   | HINXTON              |         |          |                        |                        | 0         | B8             |
| South Cambridgeshire | 1172    | 230          | The Rupert Brooke, 2-4, Broadway, Grantchester, CAMBRIDGE, CB3 9NQ                                   | Near Certain       | Employment               | Internal alterations & refurbishment, small external extensions & alterations to the existing public house   | GRANTCHESTER         |         |          |                        |                        | 610.4     | A4             |
| South Cambridgeshire | 1173    | 238          | Dixon International Group Ltd, BREWERY ROAD, PAMPISFORD  | Near Certain       | Employment               | Erection of building for research and development; extension of existing test building; part demolition and extension of warehouse; demolition and relocation of flammable liquid stores building; associated alterations to car park, roadway, hardstanding | PAMPISFORD           |         |          |                        |                        | 2740.278  | B2             |
| South Cambridgeshire | 1174    | 238          | Dixon International Group Ltd, BREWERY ROAD, PAMPISFORD  | Near Certain       | Employment               | Erection of building for research and development; extension of existing test building; part demolition and extension of warehouse; demolition and relocation of flammable liquid stores building; associated alterations to car park, roadway, hardstanding | PAMPISFORD           |         |          |                        |                        | 2740.886  | B2             |
| South Cambridgeshire | 1175    | 242          | Plot 7 and 9 Stirling Way, Papworth Everard, Cambridge, Cambridgeshire, CB23 3WA                     | Near Certain       | Employment               | Proposed Development for B8 Storage & Distribution Warehouse with Ancillary Offices and Parking.   | PAPWORTH EVERARD     |         |          |                        |                        | 3883.237  | B8             |
| South Cambridgeshire | 1176    | 238          | New Building Adjacent To 3, GRANTA PARK, GREAT ABINGTON, CAMBRIDGE                                   | Near Certain       | Employment               | Erection of Buildings for Research and Development in Phase 1 (Replacement of Planning Permission S/1173/06/O)   | GREAT ABINGTON       |         |          |                        |                        | 5040      | B1b            |
| South Cambridgeshire | 1177    | 238          | Granta Park, GREAT ABINGTON  | Near Certain       | Employment               | Erection of buildings for Research and Development in Phase 1 (replacement of planning permission S/01170/06/O)  | GREAT ABINGTON       |         |          |                        |                        | 4400      | B1b            |
| South Cambridgeshire | 1178    | 232          | Plot CPC2, Capital Park, Fulbourn, CAMBRIDGESHIRE, CB21 5XE  | Near Certain       | Employment               | Erection of office building (Use Class B1)   | FULBOURN             |         |          |                        |                        | 3120      | B1             |
| South Cambridgeshire | 1179    | 238          | Wellcome Trust Genome Campus, Hinxtton, Cambridgeshire, CB10 1RQ, Hinxtton, Cambridgeshire, CB10 1RQ | Near Certain       | Employment               | Erection of Research & Development Buildings with Ancillary Facilities and Infrastructure.   | HINXTON              |         |          |                        |                        | 2420.765  | B1b            |

| DISTRICT             | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION   | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|----------------------|---------|--------------|--|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1180    | 239          | Wrights Mower Centre, DUNSBRIDGE TURNPIKE, SHEPRETH, ROYSTON, SG8 6RB                              | Near Certain       | Employment               | Erection of commercial building, comprising workshop, storage, and ancillary retail.   | SHEPRETH             |         |          |                        |                        | 1644.539  | RTD            |
| South Cambridgeshire | 1181    | 230          | R/O 82-88 Girton Road, Girton, CAMBRIDGE, CB3 0FW  | Near Certain       | Employment               | Outline application for the erection of a Community Hall with bicycle and car parking (including approval of access, appearance, layout and scale)   | GIRTON               |         |          |                        |                        | 412.8     | D2             |
| South Cambridgeshire | 1182    | 226          | Land at, Panthers Taxi Site, Convent Drive, Waterbeach, Cambridge, CB5                             | Near Certain       | Employment               | Demolition of existing and construction of 3 new business units (Classes B1a, B1b and B1c) (additional 282 sqm)  | WATERBEACH           |         |          |                        |                        | 80        | B1c            |
| South Cambridgeshire | 1183    | 226          | Land at, Panthers Taxi Site, Convent Drive, Waterbeach, Cambridge, CB5                             | Near Certain       | Employment               | Demolition of existing and construction of 3 new business units (Classes B1a, B1b and B1c) (additional 282 sqm)  | WATERBEACH           |         |          |                        |                        | 80        | B1a            |
| South Cambridgeshire | 1184    | 226          | Land at, Panthers Taxi Site, Convent Drive, Waterbeach, Cambridge, CB5                             | Near Certain       | Employment               | Demolition of existing and construction of 3 new business units (Classes B1a, B1b and B1c) (additional 282 sqm)  | WATERBEACH           |         |          |                        |                        | 80        | B1b            |
| South Cambridgeshire | 1185    | 241          | Back Lane, Great Cambourne, CAMBRIDGE, CB23 6FY  | Near Certain       | Employment               | Sports area development including: additional junior pitches, full size artificial turf pitch (ATP) with floodlighting and fencing, multi-use games area (MUGAs), retention of bowls pavillion, erection of new sports pavillion, installation of wind turbine | CAMBOURNE            |         |          |                        |                        | 12720     | D1             |
| South Cambridgeshire | 1186    | 241          | The Hub, High Street, GREAT CAMBOURNE, Cambridge, CB23 6GW   | Near Certain       | Employment               | Extension of hub to form parish office with community space over   | CAMBOURNE            |         |          |                        |                        | 0         | D1             |
| South Cambridgeshire | 1187    | 225          | Windmill Boarding Kennels, Hale Windmill, Hale Road, Swavesey, Cambridge, Cambridgeshire, CB24 4QP | Near Certain       | Employment               | Single storey rear extension to existing cattery and part change of use to wedding/function venue  | SWAVESEY             |         |          |                        |                        | 0         | D2             |
| South Cambridgeshire | 1188    | 237          | Johnson & Sons, Unit 5, The Grip, Linton, CAMBRIDGE, CB21 4XN                                      | Near Certain       | Employment               | Two storey side extension & mid first floor extension  | LINTON               |         |          |                        |                        | 0         | B1c            |
| South Cambridgeshire | 1189    | 240          | Land at Wyndemere Farm, Ashwell Road, Steeple Morden, Royston, SG8 0PA                             | Near Certain       | Employment               | C/u of agricultural buildings to commercial (Classes B1 and B8)  | STEEPLE MORDEN       |         |          |                        |                        | 2638.62   | B1a            |
| South Cambridgeshire | 1190    | 229          | Tesco Stores Ltd, CAMBRIDGE ROAD, MILTON, CAMBRIDGE, CB24 6AY                                      | Near Certain       | Employment               | Extension, Loading Canopy, Ramp, and Alterations to Parking Spaces.  | MILTON               |         |          |                        |                        | 0         | RTC            |
| South Cambridgeshire | 1191    | 234          | The Old Barns, DROVE ROAD, GAMLINGAY, CAMBRIDGESHIRE   | Near Certain       | Employment               | Change of use to haulage contractors vehicle depot and ancillary vehicle repairs   | GAMLINGAY            |         |          |                        |                        | 1822.847  | Sui Generis    |
| South Cambridgeshire | 1192    | 233          | Land at WHITEFIELDS UPLANDS, HINTON WAY, GREAT SHELFORD, CAMBRIDGE, CB2 5AN                        | Near Certain       | Employment               | Hotel and associated car parking and landscaping (renewal of planning permission reference S/1394/08/F)  | GREAT SHELFORD       |         |          |                        |                        | 24702.35  | C1             |

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|----------------------|---------|--------------|---|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1193    | 236          | 28 CAMBRIDGE ROAD, SAWSTON  | Near Certain       | Employment               | Erection of 2 offices for architectural and planning consultant's practice, and accountant and payroll firm (B1a use) following demolition of existing buildings.                  | SAWSTON              |         |          |                        |                        | 577.1186  | B1a            |
| South Cambridgeshire | 1194    | 229          | Land at Cambridge Consulting Ltd, CAMBRIDGE SCIENCE PARK, MILTON                | Near Certain       | Employment               | Proposed 3 storey extension & energy centre following demolition of the banana block with associated landscaping, additional car & cycle parking & alternative access arrangements | MILTON               |         |          |                        |                        | 9028.872  | B1b            |
| South Cambridgeshire | 1195    | 228          | 41, Station Road, Histon, Cambridge, Cambridgeshire, CB24 9LQ                   | Near Certain       | Employment               | Proposed Annexe and Change of Use from C3 (Dwellinghouse) to C3 (Dwellinghouse) and D1 (Child Minding Business)  | HISTON & IMPINGTON   |         |          |                        |                        | 245.2     | D1             |
| South Cambridgeshire | 1196    | 237          | The Oaks, Blacksmiths Lane, Shudy Camps, CAMBRIDGE, CB21 4RQ                    | Near Certain       | Employment               | Demolition of existing dwelling and industrial buildings and erection of 2 no. 3-bedroom bungalows and associated garages, and alteration of access                                | SHUDY CAMPS          |         |          |                        |                        | -3276.4   | B2             |
| South Cambridgeshire | 1197    | 240          | Horse And Groom, BALDOCK ROAD, LITLINGTON, ROYSTON, SG8 9NS                     | Near Certain       | Employment               | Erection of restaurant building with ancillary accommodation following demolition of existing public house - (Renewal)   | LITLINGTON           |         |          |                        |                        | -3575.61  | A4             |
| South Cambridgeshire | 1198    | 240          | Horse And Groom, BALDOCK ROAD, LITLINGTON, ROYSTON, SG8 9NS                     | Near Certain       | Employment               | Erection of restaurant building with ancillary accommodation following demolition of existing public house - (Renewal)   | LITLINGTON           |         |          |                        |                        | 3575.612  | A3             |
| South Cambridgeshire | 1199    | 238          | Imperial War Museum, Royston Road, Duxford, CAMBRIDGE, CB22 4QG                 | Near Certain       | Employment               | Extension, Alterations and Change of Use from Class D1 Conference and Training Centre to Class B1 Serviced Offices and Associated Development.                                     | WHITTLESFORD         |         |          |                        |                        | -5540     | D1             |
| South Cambridgeshire | 1200    | 238          | Imperial War Museum, Royston Road, Duxford, CAMBRIDGE, CB22 4QG                 | Near Certain       | Employment               | Extension, Alterations and Change of Use from Class D1 Conference and Training Centre to Class B1 Serviced Offices and Associated Development.                                     | WHITTLESFORD         |         |          |                        |                        | 5540      | B1a            |
| South Cambridgeshire | 1201    | 237          | Raveedha Care Ltd, Symonds House, 44, Symonds Lane, Linton, CAMBRIDGE, CB21 4HY | Near Certain       | Employment               | Single Storey Rear Extension to Main Building to Create 5 Bedrooms & Courtyard   | LINTON               |         |          |                        |                        | 0         | C2             |
| South Cambridgeshire | 1202    | 225          | 27-29 LONGSTANTON ROAD, OAKINGTON AND WESTWICK, CAMBRIDGE, CB24 3BB             | Near Certain       | Employment               | Extension and alterations to retail (A1) floorspace and first floor flat (C3) and erection of detached dwelling (C3) with associated parking                                       | OAKINGTON            |         |          |                        |                        | 0         | RTC            |
| South Cambridgeshire | 1203    | 225          | 27-29 LONGSTANTON ROAD, OAKINGTON AND WESTWICK, CAMBRIDGE, CB24 3BB             | Near Certain       | Employment               | Extension and alterations to retail (A1) floorspace and first floor flat (C3) and erection of detached dwelling (C3) with associated parking                                       | OAKINGTON            |         |          |                        |                        | 0         | RTC            |
| South Cambridgeshire | 1204    | 227          | 17-19 TRAFALGAR WAY, BAR HILL, CAMBRIDGE, CB23 8SQ                              | Near Certain       | Employment               | Change of use from B1 to B2. Installation external chimney rear of unit.   | BAR HILL             |         |          |                        |                        | -312.08   | B1c            |
| South Cambridgeshire | 1205    | 227          | 17-19 TRAFALGAR WAY, BAR HILL, CAMBRIDGE, CB23 8SQ                              | Near Certain       | Employment               | Change of use from B1 to B2. Installation external chimney rear of unit.   | BAR HILL             |         |          |                        |                        | 312.0802  | B2             |

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|----------------------|---------|--------------|--|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1206    | 238          | Iconix, PAMPISFORD PARK, LONDON ROAD, PAMPISFORD                                       | Near Certain       | Employment               | B1 (Business) development - Phase 3 (Extension of time of planning permission S/01061/07/O)   | PAMPISFORD           |         |          |                        |                        | 4425.851  | B1             |
| South Cambridgeshire | 1207    | 238          | Phase II Granta Park Great Abington  | Near Certain       | Employment               | Erection of Research and Development Buildings Class B1 (B) together with Access, Strategic Landscaping and Grove Parking (including Lighting)  | GREAT ABINGTON       |         |          |                        |                        | 29280     | B1b            |
| South Cambridgeshire | 1208    | 242          | Monkfield Park, Land off A45, Monkfield, Bourn, Cambridge, CB3                         | Near Certain       | Employment               | NEW SETTLEMENT AND BUSINESS PARK [R&M estimate of business residue as at 27/05/03 is 6.16ha]  | CAMBOURNE            |         |          |                        |                        | 2400      | B2             |
| South Cambridgeshire | 1209    | 242          | Monkfield Park, Land off A45, Monkfield, Bourn, Cambridge, CB3                         | Near Certain       | Employment               | NEW SETTLEMENT AND BUSINESS PARK [R&M estimate of business residue as at 27/05/03 is 6.16ha]  | CAMBOURNE            |         |          |                        |                        | 24640     | B1a            |
| South Cambridgeshire | 1210    | 228          | New Road, Impington, Impington, CB24 9LU   | Near Certain       | Employment               | Storage Building  | IMPINGTON            |         |          |                        |                        | 0         | D2             |
| South Cambridgeshire | 1211    | 238          | Solopark Plc, Old Railway Station, Station Road, Pampisford, CAMBRIDGE, CB22 3HB       | Near Certain       | Employment               | Re-location of reclamation / sales building and external works  | PAMPISFORD           |         |          |                        |                        | 0         | Sui Generis    |
| South Cambridgeshire | 1212    | 225          | Nexus Fostering Ltd, Unit 2-3 Hazlewell Court, Bar Road, Lolworth, CAMBRIDGE, CB23 8DS | Near Certain       | Employment               | Change of use from offices to the provision of a small children's day nursery (change of use from B1 to D1 + B1) and change of use of land to carpark.  | LONGSTANTON          |         |          |                        |                        | -5.2      | B1a            |
| South Cambridgeshire | 1213    | 225          | Nexus Fostering Ltd, Unit 2-3 Hazlewell Court, Bar Road, Lolworth, CAMBRIDGE, CB23 8DS | Near Certain       | Employment               | Change of use from offices to the provision of a small children's day nursery (change of use from B1 to D1 + B1) and change of use of land to carpark.  | LONGSTANTON          |         |          |                        |                        | 46.8      | D1             |
| South Cambridgeshire | 1214    | 240          | North Brook End Stud, North Brook End, Steeple Morden, ROYSTON, SG8 0PH                | Near Certain       | Employment               | Demolition of existing outbuildings and construction of additional loose boxes and young stock barn, and conversion of existing barn to provide a residential unit, ancillary staff accommodation, office, staff facilities, tack/feed store, classroom | STEEPLE MORDEN       |         |          |                        |                        | -2152     | D2             |
| South Cambridgeshire | 1215    | 240          | North Brook End Stud, North Brook End, Steeple Morden, ROYSTON, SG8 0PH                | Near Certain       | Employment               | Demolition of existing outbuildings and construction of additional loose boxes and young stock barn, and conversion of existing barn to provide a residential unit, ancillary staff accommodation, office, staff facilities, tack/feed store, classroom | STEEPLE MORDEN       |         |          |                        |                        | 2152      | D2             |
| South Cambridgeshire | 1216    | 231          | The Barn, HIGHFIELDS ROAD, Highfields Caldecote, CB23 7NX                              | Near Certain       | Employment               | Change of use of agricultural barn to use class B1 (Office) with associated new build and erection of wall and bin and cycle store, and associated works.   | CALDECOTE            |         |          |                        |                        | 1268      | B1a            |
| South Cambridgeshire | 1217    | 223          | Plot 5, Norman Way Industrial Estate, Over, Cambridgeshire                             | Near Certain       | Employment               | Development of site to provide industrial units (8) comprising 1551m2 floorspace, ancillary parking, landscaping & access arrangements  | OVER                 |         |          |                        |                        | 614.8     | B1c            |
| South Cambridgeshire | 1218    | 223          | Plot 5, Norman Way Industrial Estate, Over, Cambridgeshire                             | Near Certain       | Employment               | Development of site to provide industrial units (8) comprising 1551m2 floorspace, ancillary parking, landscaping & access arrangements  | OVER                 |         |          |                        |                        | 614.8     | B2             |

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|----------------------|---------|--------------|---|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1219    | 223          | Plot 5, Norman Way Industrial Estate, Over, Cambridgeshire                                | Near Certain       | Employment               | Development of site to provide industrial units (8) comprising 1551m2 floorspace, ancillary parking, landscaping & access arrangements   | OVER                 |         |          |                        |                        | 614.8     | B8             |
| South Cambridgeshire | 1220    | 242          | Knapwell Wood Farmyard, HIGH STREET, KNAPWELL   | Near Certain       | Employment               | Change of use, part demolition and part extension of existing buildings to B1/B8 use, and change of use of land to garden land   | KNAPWELL             |         |          |                        |                        | 1192      | B1a            |
| South Cambridgeshire | 1221    | 242          | Knapwell Wood Farmyard, HIGH STREET, KNAPWELL   | Near Certain       | Employment               | Change of use, part demolition and part extension of existing buildings to B1/B8 use, and change of use of land to garden land   | KNAPWELL             |         |          |                        |                        | 1192.2    | B8             |
| South Cambridgeshire | 1222    | 238          | Worsted Lodge, Babraham, CAMBRIDGE, CB22 3AX  | Near Certain       | Employment               | External Alterations and Conversion of Granary and Cart-Lodges to Dwelling   | BALSHAM              |         |          |                        |                        | -338      | B1b            |
| South Cambridgeshire | 1223    | 238          | Worsted Lodge, Babraham, CAMBRIDGE, CB22 3AX  | Near Certain       | Employment               | External Alterations and Conversion of Granary and Cart-Lodges to Dwelling   | BALSHAM              |         |          |                        |                        | -338      | B1c            |
| South Cambridgeshire | 1224    | 238          | Worsted Lodge, Babraham, CAMBRIDGE, CB22 3AX  | Near Certain       | Employment               | External Alterations and Conversion of Granary and Cart-Lodges to Dwelling   | BALSHAM              |         |          |                        |                        | -338      | B1a            |
| South Cambridgeshire | 1225    | 236          | A Henry & Co, PORTOBELLO LANE, SAWSTON  | Near Certain       | Employment               | Erection of industrial building (for processing of skins and hides) following demolition of existing   | SAWSTON              |         |          |                        |                        | 2401.497  | B2             |
| South Cambridgeshire | 1226    | 228          | Office at Orchard House, Highfield Road, Impington, Cambridge, Cambridgeshire, CB24 9PF   | Near Certain       | Employment               | Prior Notification of Proposed Change of Use from Offices (Class B1a) to Dwelling (Class C3)   | IMPINGTON            |         |          |                        |                        | -21.2     | B1a            |
| South Cambridgeshire | 1227    | 229          | PARK FARM, Station Road, Stow Cum Quy, Cambridge, Cambridgeshire, CB25 9AJ                | Near Certain       | Employment               | Change of Use of Large Barn to B1(Woodworking & Furniture Restoration) and Small Barn to Use for Domestic Horticulture   | STOW-CUM-QUY         |         |          |                        |                        | 1065.272  | B1c            |
| South Cambridgeshire | 1228    | 233          | 1 Caius Farm Cottages, Babraham Road, Great Shelford, Cambridge, Cambridgeshire, CB22 3AA | Near Certain       | Employment               | Extension, Alterations, and Conversion of Outbuildings to Offices (B1) use   | GREAT SHELFORD       |         |          |                        |                        | 253.5155  | B1a            |
| South Cambridgeshire | 1229    | 229          | St. Johns Innovation Centre St. Johns Innovation P, Cowley Road, CAMBRIDGE, CB4 0WS       | Near Certain       | Employment               | Erection of Class B1 office and associated parking and landscaping (cross-boundary application also submitted to Cambridge City Council)   | MILTON               |         |          |                        |                        | 2360      | B1a            |
| South Cambridgeshire | 1230    | 240          | The Old Bakery, Church Street, Litlington, ROYSTON, SG8 0RD                               | Near Certain       | Employment               | Change of use from Class B1(a) offices to Class C3 dwelling house - Notification of a Proposed Change of Use   | LITLINGTON           |         |          |                        |                        | -96.8     | B1a            |
| South Cambridgeshire | 1231    | 232          | Former Guide Hall, Home End, Fulbourn, Cambridge, Cambridgeshire, CB21 5BS                | Near Certain       | Employment               | Erection of single-storey community building incorporating youth centre, scout hall, meeting rooms and ancillary support facilities following demolition of existing guides hall and youth buildings | FULBOURN             |         |          |                        |                        | -920.4    | D1             |

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|----------------------|---------|--------------|--|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1232    | 232          | Former Guide Hall, Home End, Fulbourn, Cambridge, Cambridgeshire, CB21 5BS                           | Near Certain       | Employment               | Erection of single-storey community building incorporating youth centre, scout hall, meeting rooms and ancillary support facilities following demolition of existing guides hall and youth buildings  | FULBOURN             |         |          |                        |                        | 920.4     | D1             |
| South Cambridgeshire | 1233    | 242          | KartSport, The Depot, Royston Road, Caxton, CAMBRIDGE, CB23 3PN                                      | Near Certain       | Employment               | Change of use of land and buildings to (a) timber reclaim and joinery with associated material handling and storage; and (b) self-storage facility; along with associated infrastructure including parking, landscaping and entrance gates. | CAXTON               |         |          |                        |                        | 2900      | RTD            |
| South Cambridgeshire | 1234    | 242          | KartSport, The Depot, Royston Road, Caxton, CAMBRIDGE, CB23 3PN                                      | Near Certain       | Employment               | Change of use of land and buildings to (a) timber reclaim and joinery with associated material handling and storage; and (b) self-storage facility; along with associated infrastructure including parking, landscaping and entrance gates. | CAXTON               |         |          |                        |                        | 4108      | B8             |
| South Cambridgeshire | 1235    | 242          | KartSport, The Depot, Royston Road, Caxton, CAMBRIDGE, CB23 3PN                                      | Near Certain       | Employment               | Change of use of land and buildings to (a) timber reclaim and joinery with associated material handling and storage; and (b) self-storage facility; along with associated infrastructure including parking, landscaping and entrance gates. | CAXTON               |         |          |                        |                        | 4872.4    | B2             |
| South Cambridgeshire | 1236    | 236          | 82, High Street, SAWSTON, CB22 3HJ   | Near Certain       | Employment               | Two storey rear extension to offices  | SAWSTON              |         |          |                        |                        | 0         | B1a            |
| South Cambridgeshire | 1237    | 225          | Station Yard, Station Road, Longstanton, Cambridge, CB4  | Near Certain       | Employment               | Erection of 2 storage buildings (class B8) and associated parking (456 sqm)   | LONGSTANTON          |         |          |                        |                        | 204.602   | B8             |
| South Cambridgeshire | 1238    | 226          | Chittering Park, School Lane, Chittering, WATERBEACH, CB25 9PW                                       | Near Certain       | Employment               | Erection of replacement office / reception / and staff / utility facilities and storage building  | WATERBEACH           |         |          |                        |                        | 34        | D2             |
| South Cambridgeshire | 1239    | 241          | Sites 2 & 3, High Street and Back Lane, Cambourne, Cambridgeshire, CB23                              | Near Certain       | Employment               | Five retail units (A1 use) comprising two stand-alone retail units (site 2), three retail warehouse units (site 3), free-standing signage totem, associated car parking, external ancillary space and external hard and soft landscaping.   | CAMBOURNE            |         |          |                        |                        | 3506.394  | RTD            |
| South Cambridgeshire | 1240    | 238          | Babraham Research Campus, High Street, Babraham, CAMBRIDGE, CB22 3AT                                 | Near Certain       | Employment               | Outline application for development of up to 10,000 square metres of research and development floorspace, along with access and associated infrastructure   | BABRAHAM             |         |          |                        |                        | 32400     | B1b            |
| South Cambridgeshire | 1241    | 229          | Tesco Stores Ltd, Cambridge Road, Milton, CAMBRIDGE, CB24 6AY  | Near Certain       | Employment               | Proposed customer collection pod and canopy   | MILTON               |         |          |                        |                        | 0         | RTC            |
| South Cambridgeshire | 1242    | 242          | Crows Nest Farm, Ermine Street South, PAPWORTH EVERARD, CB23 3PB                                     | Near Certain       | Employment               | Change of use & refurbishment of redundant farm building to office/light industrial use & the erection of a workshop  | PAPWORTH EVERARD     |         |          |                        |                        | 1700      | B1c            |
| South Cambridgeshire | 1243    | 237          | Limberhurst Court, 1 HAVERHILL ROAD, HORSEHEATH, CAMBRIDGE, CB21 4RG                                 | Near Certain       | Employment               | Change of use of B1 business use buildings to one dwelling (a live/work unit) including alterations and extension to link buildings together  | HORSEHEATH           |         |          |                        |                        | 1276.4    | B1c            |
| South Cambridgeshire | 1244    | 231          | The Shellings, Highfields Road, Highfields Caldecote, Caldecote, Cambridge, Cambridgeshire, CB23 7NX | Near Certain       | Employment               | Extension of single storey outbuilding to provide extra kennel accommodation  | CALDECOTE            |         |          |                        |                        | 0         | Sui Generis    |

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|----------------------|---------|--------------|---|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1245    | 235          | Orchard Farm, Fowlmere Road, Foxton, CAMBRIDGE, CB22 6TA                      | Near Certain       | Employment               | Change of Use of buildings from grain and seed storage to B8 vehicle storage with ancillary workshop including MOT bay   | FOXTON               |         |          |                        |                        | 6508      | B8             |
| South Cambridgeshire | 1246    | 234          | Land to South of, STATION ROAD, GAMLINGAY                                     | Near Certain       | Employment               | Mixed Residential and Employment Use including Construction of Access Road, Provision of Open Space, Landscaping and Balancing Pond  | GAMLINGAY            |         |          |                        |                        | 4520      | B1             |
| South Cambridgeshire | 1247    | 233          | Welchs Transport Ltd, Granta Terrace, Stapleford, CAMBRIDGE, CB22 5DL         | Near Certain       | Employment               | Erection of 44 dwellings - reserved matters scheme (layout, scale, appearance and landscaping) pursuant to outline planning permission reference S/1725/12/OL  | STAPLEFORD           |         |          |                        |                        | -5192     | B8             |
| South Cambridgeshire | 1248    | 233          | Welchs Transport Ltd, Granta Terrace, Stapleford, CAMBRIDGE, CB22 5DL         | Near Certain       | Employment               | Erection of 44 dwellings - reserved matters scheme (layout, scale, appearance and landscaping) pursuant to outline planning permission reference S/1725/12/OL  | STAPLEFORD           |         |          |                        |                        | -1300     | B1a            |
| South Cambridgeshire | 1249    | 224          | Unit 15 Watsons Yard, High Street, Cottenham, CAMBRIDGE, CB24 8RX             | Near Certain       | Employment               | Demolition of garage and erection of replacement building for B1 (office) use  | COTTENHAM            |         |          |                        |                        | -28       | B1c            |
| South Cambridgeshire | 1250    | 224          | Unit 15 Watsons Yard, High Street, Cottenham, CAMBRIDGE, CB24 8RX             | Near Certain       | Employment               | Demolition of garage and erection of replacement building for B1 (office) use  | COTTENHAM            |         |          |                        |                        | 26        | B1a            |
| South Cambridgeshire | 1251    | 230          | Land Between Mandingley Road and, HUNTINGDON ROAD, GIRTON, CAMBRIDGE, CB3 0LH | Near Certain       | Employment               | Proposed development comprising up to 3,000 dwellings; Up to 2,000 student bedspaces; 100,000 sq.m. employment floorspace, of which: up to 40,000 sq.m. commercial floorspace (Class B1(b) and sui generis research uses) and at least 60,000 sq.m. academic | GIRTON               |         |          |                        |                        | 2640      | Sui Generis    |
| South Cambridgeshire | 1252    | 230          | Land Between Mandingley Road and, HUNTINGDON ROAD, GIRTON, CAMBRIDGE, CB3 0LH | Near Certain       | Employment               | Proposed development comprising up to 3,000 dwellings; Up to 2,000 student bedspaces; 100,000 sq.m. employment floorspace, of which: up to 40,000 sq.m. commercial floorspace (Class B1(b) and sui generis research uses) and at least 60,000 sq.m. academic | GIRTON               |         |          |                        |                        | 9496      | B1b            |
| South Cambridgeshire | 1253    | 230          | Land Between Mandingley Road and, HUNTINGDON ROAD, GIRTON, CAMBRIDGE, CB3 0LH | Near Certain       | Employment               | Proposed development comprising up to 3,000 dwellings; Up to 2,000 student bedspaces; 100,000 sq.m. employment floorspace, of which: up to 40,000 sq.m. commercial floorspace (Class B1(b) and sui generis research uses) and at least 60,000 sq.m. academic | GIRTON               |         |          |                        |                        | 28488     | D1             |
| South Cambridgeshire | 1254    | 236          | Unit M2 Dales Manor, BABRAHAM ROAD, SAWSTON, CAMBRIDGE, CB22 3TJ              | Near Certain       | Employment               | Change of use from a workshop with light industrial use (B1c) to motor vehicle servicing and repairs with MOT testing station (General Industry B2 Use)  | SAWSTON              |         |          |                        |                        | 207.9687  | B2             |
| South Cambridgeshire | 1255    | 234          | Accora Ltd, Charter House, Barrington Road, ORWELL, SG8 5QP                   | Near Certain       | Employment               | Alterations and extension to existing warehouse to provide additional warehousing. Provision of additional car and lorry parking.  | ORWELL               |         |          |                        |                        | 0         | B8             |
| South Cambridgeshire | 1256    | 234          | Accora Ltd, Charter House, Barrington Road, ORWELL, SG8 5QP                   | Near Certain       | Employment               | Alterations and extension to existing warehouse to provide additional warehousing. Provision of additional car and lorry parking.  | ORWELL               |         |          |                        |                        | 0         | B8             |
| South Cambridgeshire | 1257    | 228          | Mereway Farm, Milton Road, Impington, CAMBRIDGE, CB24 9NG                     | Near Certain       | Employment               | Application for mezzanine floor in part of building 3  | HISTON & IMPINGTON   |         |          |                        |                        | 0         | B1a            |

| DISTRICT             | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION   | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|----------------------|---------|--------------|--|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1258    | 229          | Marshall Motor Group Ltd, The Used Car Centre, 699, Newmarket Road, CAMBRIDGE, CB5 8SQ | Near Certain       | Employment               | Change of use from parts distribution to two car showrooms with alterations and extension  | FEN DITTON           |         |          |                        |                        | -1358.8   | Sui Generis    |
| South Cambridgeshire | 1259    | 229          | Marshall Motor Group Ltd, The Used Car Centre, 699, Newmarket Road, CAMBRIDGE, CB5 8SQ | Near Certain       | Employment               | Change of use from parts distribution to two car showrooms with alterations and extension  | FEN DITTON           |         |          |                        |                        | 1358.8    | Sui Generis    |
| South Cambridgeshire | 1260    | 237          | Velfac Ltd, The Old Livery, Hildersham, CAMBRIDGE, CB21 6DR                            | Near Certain       | Employment               | Replacement of existing asbestos roof cladding with insulated steel roof cladding. Installation of two fire exit doors to gable end of building with fire exit escapeway. Construction of new first floor level. | HILDERSHAM           |         |          |                        |                        | 0         | B1a            |
| South Cambridgeshire | 1261    | 242          | Papworth Hospital, Papworth Everard, CAMBRIDGE, CB23 3RE                               | Near Certain       | Employment               | Construction of hybrid operating theatre and extension to intensive care unit  | PAPWORTH EVERARD     |         |          |                        |                        | -118      | C2             |
| South Cambridgeshire | 1262    | 242          | Papworth Hospital, Papworth Everard, CAMBRIDGE, CB23 3RE                               | Near Certain       | Employment               | Construction of hybrid operating theatre and extension to intensive care unit  | PAPWORTH EVERARD     |         |          |                        |                        | 118       | C2             |
| South Cambridgeshire | 1263    | 230          | Field Station, Huntingdon Road, CAMBRIDGE, CB3 0HL                                     | Near Certain       | Employment               | Refurbishment and Replacement of Redundant Buildings for Continued Class B1b (Business) use.   | GIRTON               |         |          |                        |                        | -4104     | B1b            |
| South Cambridgeshire | 1264    | 230          | Field Station, Huntingdon Road, CAMBRIDGE, CB3 0HL                                     | Near Certain       | Employment               | Refurbishment and Replacement of Redundant Buildings for Continued Class B1b (Business) use.   | GIRTON               |         |          |                        |                        | 4104      | B1b            |
| South Cambridgeshire | 1265    | 233          | Caius Farm, Shelford Bottom, CAMBRIDGE, CB22 3AA                                       | Near Certain       | Employment               | Erection of a Hospice Building with Associated Education Centre, Provision of Hard Surfaced Parking Areas, Landscaping and Associated Works and Infrastructure following Demolition of Existing Outbuilding      | GREAT SHELFORD       |         |          |                        |                        | 3651.2    | C2             |
| South Cambridgeshire | 1266    | 238          | South Field Phase 2, WELLCOME TRUST GENOME CAMPUS, HINXTON                             | Near Certain       | Employment               | Erection of Buildings for Research and Development, Landscaping and Associated Infrastructure (The Technical Hub) (Phase 2 Reserved Matters Following Outline Approval reference S/1204/09/O)                    | HINXTON              |         |          |                        |                        | 4800      | B1b            |
| South Cambridgeshire | 1267    | 238          | Babraham Research Campus, BABRAHAM   | Near Certain       | Employment               | Outline application for four research and development buildings and associated infrastructure, including details of the main access road, lighting, standby generator building and flood compensation works      | BABRAHAM             |         |          |                        |                        | 4640      | B1b            |
| South Cambridgeshire | 1268    | 239          | Royston Garden Centre, Dunsbridge Turnpike, Shepreth, Cambridgeshire, SG8 6RA          | Near Certain       | Employment               | Erection of garden centre sales building   | SHEPRETH             |         |          |                        |                        | 0         | RTD            |
| South Cambridgeshire | 1269    | 234          | Church Meadows, Haslingfield Road, Barrington, Cambridgeshire                          | Near Certain       | Employment               | Change of use of self contained office unit to residential use   | BARRINGTON           |         |          |                        |                        | -438.744  | B1a            |
| South Cambridgeshire | 1270    | 235          | 29, Barton Road, Haslingfield, CAMBRIDGE, CB23 1LL                                     | Near Certain       | Employment               | Change of use of Light Industry workshop to residential garage   | HASLINGFIELD         |         |          |                        |                        | -102.8    | B1c            |



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|----------------------|---------|--------------|--|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1271    | 234          | 12 Potton Road Mill Hill, Gamlingay, Sandy, Cambridgeshire, SG19 3LW                                       | Near Certain       | Employment               | Change of Use to Haulage and Distribution Depot   | GAMLINGAY            |         |          |                        |                        | -1239.2   | Sui Generis    |
| South Cambridgeshire | 1272    | 234          | 12 Potton Road Mill Hill, Gamlingay, Sandy, Cambridgeshire, SG19 3LW                                       | Near Certain       | Employment               | Change of Use to Haulage and Distribution Depot   | GAMLINGAY            |         |          |                        |                        | 1239.2    | B8             |
| South Cambridgeshire | 1273    | 235          | Apple Cottage, Button End, Harston, CAMBRIDGE, CB22 7NX  | Near Certain       | Employment               | Replacement of existing dwelling with religious meeting hall.   | HARSTON              |         |          |                        |                        | 4652      | D1             |
| South Cambridgeshire | 1274    | 236          | Spicers, Spicers Ltd, Sawston Bypass, SAWSTON, CB22 3JG  | Near Certain       | Employment               | Change of use from B8 to B2 use, including minor extensions and alterations to existing   | SAWSTON              |         |          |                        |                        | -6337.6   | B8             |
| South Cambridgeshire | 1275    | 236          | Spicers, Spicers Ltd, Sawston Bypass, SAWSTON, CB22 3JG  | Near Certain       | Employment               | Change of use from B8 to B2 use, including minor extensions and alterations to existing   | SAWSTON              |         |          |                        |                        | 6337.6    | B2             |
| South Cambridgeshire | 1276    | 242          | Stubbind Marketing Ltd 18, Oak Tree Road, Fen Drayton, CAMBRIDGE, CB24 4SS                                 | Near Certain       | Employment               | Commercial glasshouse   | FEN DRAYTON          |         |          |                        |                        | 0         | B1a            |
| South Cambridgeshire | 1277    | 238          | Hexcel Composites Ltd, Ickleton Road, Duxford, CAMBRIDGE, CB22 4QD   | Near Certain       | Employment               | Alterations, Extension, New Roof, External Storage Compound, Air Handling Units, Liquid Nitrogen Tank, Extract Units, and Flues. Demolition of Existing Extension and Boiler House. | DUXFORD              |         |          |                        |                        | 0         | B2             |
| South Cambridgeshire | 1278    | 238          | Hexcel Composites Ltd, Ickleton Road, Duxford, CAMBRIDGE, CB22 4QD   | Near Certain       | Employment               | Alterations, Extension, New Roof, External Storage Compound, Air Handling Units, Liquid Nitrogen Tank, Extract Units, and Flues. Demolition of Existing Extension and Boiler House. | DUXFORD              |         |          |                        |                        | 0         | B2             |
| South Cambridgeshire | 1279    | 231          | 12, Barton Road, COMBERTON, CB23 7BP   | Near Certain       | Employment               | Second extension and re-positioning of the Comberton Post Office facility together with a security roller shutter arrangement to the front windows                                  | COMBERTON            |         |          |                        |                        | 0         | RTC            |
| South Cambridgeshire | 1280    | 238          | Land surrounding Hill Crest Farm, Toseland Road, Graveley, Huntingdon, PE18                                | Near Certain       | Employment               | Erection of research building, standby generator house and sub station enclosure  | GRAVELEY             |         |          |                        |                        | 360       | B1b            |
| South Cambridgeshire | 1281    | 228          | Bramley Court Care Home, Chivers Way, Histon, CAMBRIDGE, CB24 9AH  | Near Certain       | Employment               | Extension to provide 3 no. additional bedrooms & extended lobby and internal alterations including formation of patio doors in place of windows in ground floor bedrooms.           | HISTON & IMPINGTON   |         |          |                        |                        | 0         | C2             |
| South Cambridgeshire | 1282    | 228          | Histon Football Club, The Glass World Stadium, Bridge Road, Impington, Cambridge, Cambridgeshire, CB24 9PH | Near Certain       | Employment               | Outline application with all matters reserved, for erection of replacement clubhouse following demolition of existing clubhouse   | HISTON & IMPINGTON   |         |          |                        |                        | -118.121  | D2             |
| South Cambridgeshire | 1283    | 228          | Histon Football Club, The Glass World Stadium, Bridge Road, Impington, Cambridge, Cambridgeshire, CB24 9PH | Near Certain       | Employment               | Outline application with all matters reserved, for erection of replacement clubhouse following demolition of existing clubhouse   | HISTON & IMPINGTON   |         |          |                        |                        | 118.1205  | D2             |

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|----------------------|---------|--------------|---|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1284    | 231          | Hurst Holdings, Meridian Court, Comberton Road, TOFT, CB23 2RY                    | Near Certain       | Employment               | Change of office to dwelling - Application as to whether the prior approval of the local planning authority is required  | TOFT                 |         |          |                        |                        | -579.2    | B1a            |
| South Cambridgeshire | 1285    | 231          | Gracefield Nursing Home, ST NEOTS ROAD, CALDECOTE, CAMBRIDGE, CB23 8AY            | Near Certain       | Employment               | Extension to provide additional bedrooms for nursing home and ancillary accommodation and new access arrangement (extension to time limit for implementation)  | CALDECOTE            |         |          |                        |                        | 0         | C2             |
| South Cambridgeshire | 1286    | 238          | GRANTA PARK, GREAT ABINGTON   | Near Certain       | Employment               | Renewal: Erection of Research and Development Buildings Class B1(B) together with parking and roads (replacement of outline planning permission S/2495/04/O on Plots 200, 400 and 500 with extended time period for submission of reserved matters and implementation) | GREAT ABINGTON       |         |          |                        |                        | 13560     | B1b            |
| South Cambridgeshire | 1287    | 229          | 26, Cambridge Road, MILTON, CB24 6AW  | Near Certain       | Employment               | Single storey extension to veterinary practice   | MILTON               |         |          |                        |                        | 0         | D1             |
| South Cambridgeshire | 1288    | 235          | Land at, Bayer Crop Science, CAMBRIDGE ROAD, HAUXTON                              | Near Certain       | Employment               | Redevelopment of 8.7 ha of previously developed land for a mix of uses including up to 380 dwellings, up to 4,000 sqm of B1a office floorspace no greater than 250 sqm (gross) A1 retail floorspace and provision of open space and associated access engineering      | HAUXTON              |         |          |                        |                        | 80        | RTC            |
| South Cambridgeshire | 1289    | 235          | Land at, Bayer Crop Science, CAMBRIDGE ROAD, HAUXTON                              | Near Certain       | Employment               | Redevelopment of 8.7 ha of previously developed land for a mix of uses including up to 380 dwellings, up to 4,000 sqm of B1a office floorspace no greater than 250 sqm (gross) A1 retail floorspace and provision of open space and associated access engineering      | HAUXTON              |         |          |                        |                        | 1440      | B1a            |
| South Cambridgeshire | 1290    | 234          | Post Office, 15, Cinques Road, Gamlingay, SANDY, SG19 3NJ                         | Near Certain       | Employment               | Extension of shop and construction of disabled persons access ramp.  | GAMLINGAY            |         |          |                        |                        | 0         | RTC            |
| South Cambridgeshire | 1291    | 238          | Wellcome Trust Genome Campus, Hinxton, Saffron Walden, CB10 1RQ                   | Near Certain       | Employment               | Part demolition and extension to Rosalind Franklin Pavilion and associated alterations to services, infrastructure and landscaping.  | HINXTON              |         |          |                        |                        | 0         | B1b            |
| South Cambridgeshire | 1292    | 225          | Oakington C Of E Primary School, Water Lane, Oakington, CAMBRIDGE, CB24 3AL       | Near Certain       | Employment               | Proposed Two Classrooms and External Works   | OAKINGTON            |         |          |                        |                        | 0         | D1             |
| South Cambridgeshire | 1293    | 225          | Swavesey Village College, Gibraltar Lane, Swavesey, CAMBRIDGE, CB24 4RS           | Near Certain       | Employment               | Demolition of an existing teaching block. Construction of a new purpose build teaching block, in two phases, to adjoin the phase I building currently on site  | SWAVESEY             |         |          |                        |                        | -913.2    | D1             |
| South Cambridgeshire | 1294    | 225          | Swavesey Village College, Gibraltar Lane, Swavesey, CAMBRIDGE, CB24 4RS           | Near Certain       | Employment               | Demolition of an existing teaching block. Construction of a new purpose build teaching block, in two phases, to adjoin the phase I building currently on site  | SWAVESEY             |         |          |                        |                        | 913.2     | D1             |
| South Cambridgeshire | 1295    | 229          | Bard Pharmaceuticals Ltd, Cambridge Science Park, Milton Road, Cambridge, CB4 0GW | Near Certain       | Employment               | Extensions to existing building to provide approximately 5120 sqm of floorspace (including plant at ground and first floors) for a mix of B1, B2 and B8 floorspace; demolition of existing outbuildings and erection of replacement outbuildings                       | MILTON               |         |          |                        |                        | 0         | B8             |
| South Cambridgeshire | 1296    | 229          | Bard Pharmaceuticals Ltd, Cambridge Science Park, Milton Road, Cambridge, CB4 0GW | Near Certain       | Employment               | Extensions to existing building to provide approximately 5120 sqm of floorspace (including plant at ground and first floors) for a mix of B1, B2 and B8 floorspace; demolition of existing outbuildings and erection of replacement outbuildings                       | MILTON               |         |          |                        |                        | 0         | B8             |

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|----------------------|---------|--------------|--|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1297    | 229          | Bard Pharmaceuticals Ltd, Cambridge Science Park, Milton Road, Cambridge, CB4 0GW                  | Near Certain       | Employment               | Extensions to existing building to provide approximately 5120 sqm of floorspace (including plant at ground and first floors) for a mix of B1, B2 and B8 floorspace; demolition of existing outbuildings and erection of replacement outbuildings              | MILTON               |         |          |                        |                        | 0         | B2             |
| South Cambridgeshire | 1298    | 234          | Saffords Coaches, THE DRIFT, LITTLE GRANSDEN, SANDY, SG19 3DP                                      | Near Certain       | Employment               | Outline application for proposed residential development of three dwellings (including approval of access), following demolition of existing garage/workshop/offices.   | LITTLE GRANSDEN      |         |          |                        |                        | -923.256  | Sui Generis    |
| South Cambridgeshire | 1299    | 240          | 59 Station Road, Steeple Morden, Royston, Cambridgeshire, SG8 0NS                                  | Near Certain       | Employment               | Alteration and conversion of agricultural barn to form two live/work (Class B1) units   | STEEPLE MORDEN       |         |          |                        |                        | 787.3312  | B1             |
| South Cambridgeshire | 1300    | 237          | Pinehawk Kennels, Church Road, Carlton, NEWMARKET, CB8 9LA   | Near Certain       | Employment               | Conversion and change use from office and store to residential dwelling (Revised Design)  | CARLTON              |         |          |                        |                        | -1480     | Sui Generis    |
| South Cambridgeshire | 1301    | 226          | PLOT Y, Cambridge Research Park, Beach Drive, LANDBEACH, CB25 9TL                                  | Near Certain       | Employment               | Reserved matters scheme (Access from Beech Road, Appearance, Landscaping, Layout and Scale) for 3 no. two storey buildings to provide 5744 sqm of B1, B2 and B8 floor space, plus parking, servicing and landscaping on Plot Y pursuant to Outline permission | LANDBEACH            |         |          |                        |                        | 3000      | B1c            |
| South Cambridgeshire | 1302    | 226          | PLOT Y, Cambridge Research Park, Beach Drive, LANDBEACH, CB25 9TL                                  | Near Certain       | Employment               | Reserved matters scheme (Access from Beech Road, Appearance, Landscaping, Layout and Scale) for 3 no. two storey buildings to provide 5744 sqm of B1, B2 and B8 floor space, plus parking, servicing and landscaping on Plot Y pursuant to Outline permission | LANDBEACH            |         |          |                        |                        | 3000      | B1a            |
| South Cambridgeshire | 1303    | 226          | PLOT Y, Cambridge Research Park, Beach Drive, LANDBEACH, CB25 9TL                                  | Near Certain       | Employment               | Reserved matters scheme (Access from Beech Road, Appearance, Landscaping, Layout and Scale) for 3 no. two storey buildings to provide 5744 sqm of B1, B2 and B8 floor space, plus parking, servicing and landscaping on Plot Y pursuant to Outline permission | LANDBEACH            |         |          |                        |                        | 3000      | B1b            |
| South Cambridgeshire | 1304    | 226          | PLOT Z, Cambridge Research Park, Beach Drive, LANDBEACH, CB25 9TL                                  | Near Certain       | Employment               | Reserved matters scheme (Access from Beech Road, Appearance, Landscaping, Layout and Scale) for 2 no. two storey buildings to provide 6420 sqm of B1(a) and/or B1(b) floor space, plus parking, servicing and landscaping on Plot Z pursuant to Outline permi | LANDBEACH            |         |          |                        |                        | 3200      | B1b            |
| South Cambridgeshire | 1305    | 226          | PLOT Z, Cambridge Research Park, Beach Drive, LANDBEACH, CB25 9TL                                  | Near Certain       | Employment               | Reserved matters scheme (Access from Beech Road, Appearance, Landscaping, Layout and Scale) for 2 no. two storey buildings to provide 6420 sqm of B1(a) and/or B1(b) floor space, plus parking, servicing and landscaping on Plot Z pursuant to Outline permi | LANDBEACH            |         |          |                        |                        | 3200      | B1a            |
| South Cambridgeshire | 1306    | 237          | Land at Balsham Hill, West Wickham, CB21 4RX, Balsham Hill, West Wickham, Cambridgeshire, CB21 4RX | Near Certain       | Employment               | Outline application, with all matters others than the means of access reserved, for the erection of: a stable building (comprising 18 stables, feed room, tack room and wash down facilities); horse walker building; dwelling with attached office and staff | WEST WICKHAM         |         |          |                        |                        | 3909.6    | D2             |
| South Cambridgeshire | 1307    | 242          | Nursery adjacent Cootes Lane, SPRINGHILL ROAD, FEN DRAYTON   | Near Certain       | Employment               | Extension to storage area   | FEN DRAYTON          |         |          |                        |                        | 0         | B8             |
| South Cambridgeshire | 1308    | 238          | TWI, GRANTA PARK, GREAT ABINGTON, CAMBRIDGE, CB21 6AL  | Near Certain       | Employment               | Outline planning application for the redevelopment of TWI site to create a series of new buildings connected to the main Bevan Braithwaite building and to be occupied for a mix of B1(b) Research and Development purposes                                   | GREAT ABINGTON       |         |          |                        |                        | 29480     | B1b            |
| South Cambridgeshire | 1309    | 242          | Former Yim Wah House, Ermine Street, Caxton, Cambridgeshire, CB23 3PE                              | Near Certain       | Employment               | Extension to existing freestanding restaurant to provide training room  | ELSWORTH             |         |          |                        |                        | 0         | A5             |

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|----------------------|---------|--------------|--|--------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1310    | 242          | Former Yim Wah House, Ermine Street, Caxton, Cambridgeshire, CB23 3PE                | Near Certain       | Employment               | Extension to existing freestanding restaurant to provide training room   | ELSWORTH             |         |          |                        |                        | 0         | A3             |
| South Cambridgeshire | 1311    | 239          | Grange Farm, Newmarket Road, MELBOURN, SG8 7PR                                       | Near Certain       | Employment               | Conversion of B1 office building to holiday accommodation (4 Units)  | MELBOURN             |         |          |                        |                        | -85.6     | B1a            |
| South Cambridgeshire | 1312    | 237          | LIMBERHURST ARTS CENTRE, PARK HILL, HORSEHEATH, CAMBRIDGESHIRE                       | Near Certain       | Employment               | Change of use of B1 business use buildings to one dwelling (a live/work unit) including alterations and extension.   | HORSEHEATH           |         |          |                        |                        | 1007.6    | B1a            |
| South Cambridgeshire | 1313    | 239          | Store Rear Of Willards Landscaping Deans Farm, LONG LANE, FOWLMERE, ROYSTON, SG8 7TG | Near Certain       | Employment               | Proposed conversion of buidling (B1 use) to poultry, pet and equestrian store.   | FOWLMERE             |         |          |                        |                        | -1365.2   | B1a            |
| South Cambridgeshire | 1314    | 239          | Store Rear Of Willards Landscaping Deans Farm, LONG LANE, FOWLMERE, ROYSTON, SG8 7TG | Near Certain       | Employment               | Proposed conversion of buidling (B1 use) to poultry, pet and equestrian store.   | FOWLMERE             |         |          |                        |                        | 29.6      | RTD            |
| South Cambridgeshire | 1315    | 239          | Store Rear Of Willards Landscaping Deans Farm, LONG LANE, FOWLMERE, ROYSTON, SG8 7TG | Near Certain       | Employment               | Proposed conversion of buidling (B1 use) to poultry, pet and equestrian store.   | FOWLMERE             |         |          |                        |                        | 1335.6    | RTD            |
| South Cambridgeshire | 1316    | 233          | 2E, Dolphin Way, Stapleford, CAMBRIDGE, CB22 5DW                                     | Near Certain       | Employment               | Change of use from Barbers Shop (A1) to Tattoo Studio (Sui Generis)  | STAPLEFORD           |         |          |                        |                        | 30.8      | Sui Generis    |
| South Cambridgeshire | 1317    | 235          | Rear of 8 Sheepshead Lane, Harston, Cambridge, Cambridgeshire, CB22 7QA              | Near Certain       | Employment               | Erection of detached dwelling following demolition of existing buildings and removal of storage of caravans  | HARSTON              |         |          |                        |                        | -1520     | B8             |
| South Cambridgeshire | 1318    | 227          | 2-5 TRAFALGAR WAY, BAR HILL, CAMBRIDGE, CB23 8SQ                                     | Near Certain       | Employment               | Change of use from Class B8 (Storage or Distribution)) to Class B2 (General Industrial) - Units 2, 3 and 5. Installation of a waste paper compactor plant unit to the front forecourt of unit 5. | BAR HILL             |         |          |                        |                        | -1558.4   | B8             |
| South Cambridgeshire | 1319    | 227          | 2-5 TRAFALGAR WAY, BAR HILL, CAMBRIDGE, CB23 8SQ                                     | Near Certain       | Employment               | Change of use from Class B8 (Storage or Distribution)) to Class B2 (General Industrial) - Units 2, 3 and 5. Installation of a waste paper compactor plant unit to the front forecourt of unit 5. | BAR HILL             |         |          |                        |                        | 1558.4    | B2             |
| South Cambridgeshire | 1320    | 231          | Kingston Barns, Bourn Road, Kingston, Cambridge, CB23 2NP                            | Near Certain       | Employment               | Conversion of Barn to Holiday Accommodation (revised design to S/2246/10)  | KINGSTON             |         |          |                        |                        | -960.52   | B1a            |
| South Cambridgeshire | 1321    | 228          | Unit 2, Local Centre Building, Unwin Square, Orchard Park, CAMBRIDGE                 | Near Certain       | Employment               | Change of use of floorspace within Unit 2 of Local Centre Building from A1, A2, A3 and A5 uses in the alternative subject to the restriction of no more than 140 sqm of A3/A5 floorspace         | ORCHARD PARK         |         |          |                        |                        | -5.4      | A2             |
| South Cambridgeshire | 1322    | 228          | Unit 2, Local Centre Building, Unwin Square, Orchard Park, CAMBRIDGE                 | Near Certain       | Employment               | Change of use of floorspace within Unit 2 of Local Centre Building from A1, A2, A3 and A5 uses in the alternative subject to the restriction of no more than 140 sqm of A3/A5 floorspace         | ORCHARD PARK         |         |          |                        |                        | -5.4      | A3             |

| DISTRICT             | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION  | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|----------------------|---------|--------------|--|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1323    | 228          | Unit 2, Local Centre Building, Unwin Square, Orchard Park, CAMBRIDGE         | Near Certain       | Employment               | Change of use of floorspace within Unit 2 of Local Centre Building from A1, A2, A3 and A5 uses in the alternative subject to the restriction of no more than 140 sqm of A3/A5 floorspace  | ORCHARD PARK         |         |          |                        |                        | -5.4      | RTU            |
| South Cambridgeshire | 1324    | 228          | Unit 2, Local Centre Building, Unwin Square, Orchard Park, CAMBRIDGE         | Near Certain       | Employment               | Change of use of floorspace within Unit 2 of Local Centre Building from A1, A2, A3 and A5 uses in the alternative subject to the restriction of no more than 140 sqm of A3/A5 floorspace  | ORCHARD PARK         |         |          |                        |                        | -4.8      | A5             |
| South Cambridgeshire | 1325    | 228          | Unit 2, Local Centre Building, Unwin Square, Orchard Park, CAMBRIDGE         | Near Certain       | Employment               | Change of use of floorspace within Unit 2 of Local Centre Building from A1, A2, A3 and A5 uses in the alternative subject to the restriction of no more than 140 sqm of A3/A5 floorspace  | ORCHARD PARK         |         |          |                        |                        | 21.6      | A3             |
| South Cambridgeshire | 1326    | 225          | Swavesey Village College, Gibraltar Lane, Swavesey, CAMBRIDGE, CB24 4RS      | Near Certain       | Employment               | Classroom Block   | SWAVESEY             |         |          |                        |                        | 0         | D1             |
| South Cambridgeshire | 1327    | 234          | Clopton Farm, Lower Road, Croydon, ROYSTON, SG8 0EQ                          | Near Certain       | Employment               | Conversion of redundant farm buildings to form two live/work units and a separate business unit (B1)  | CROYDON              |         |          |                        |                        | 27.6      | B1b            |
| South Cambridgeshire | 1328    | 234          | Clopton Farm, Lower Road, Croydon, ROYSTON, SG8 0EQ                          | Near Certain       | Employment               | Conversion of redundant farm buildings to form two live/work units and a separate business unit (B1)  | CROYDON              |         |          |                        |                        | 27.6      | B1c            |
| South Cambridgeshire | 1329    | 234          | Clopton Farm, Lower Road, Croydon, ROYSTON, SG8 0EQ                          | Near Certain       | Employment               | Conversion of redundant farm buildings to form two live/work units and a separate business unit (B1)  | CROYDON              |         |          |                        |                        | 27.6      | B1a            |
| South Cambridgeshire | 1330    | 238          | Cricket Pavilion Cricket Ground, FOWLMERE ROAD, THRILOW, ROYSTON, SG8 7QU    | Near Certain       | Employment               | New pavilion following demolition of existing   | THRILOW              |         |          |                        |                        | -4784.08  | D2             |
| South Cambridgeshire | 1331    | 238          | Cricket Pavilion Cricket Ground, FOWLMERE ROAD, THRILOW, ROYSTON, SG8 7QU    | Near Certain       | Employment               | New pavilion following demolition of existing   | THRILOW              |         |          |                        |                        | 4784.078  | D2             |
| South Cambridgeshire | 1332    | 238          | The Babraham Institute, Babraham Hall, Babraham, CAMBRIDGE, CB22 3AT         | Near Certain       | Employment               | Submission of reserved matters for approval of the site layout, scale and appearance of research and development building (building 920) and associated external storage building and smoking shelter, together with details required by conditions 9 | BABRAHAM             |         |          |                        |                        | 2252      | B1b            |
| South Cambridgeshire | 1333    | 225          | Swavesey Village College, Gibraltar Lane, Swavesey, CAMBRIDGE, CB24 4RS      | Near Certain       | Employment               | Demolition of Existing 1960's teaching Block & erection of New Buildings  | SWAVESEY             |         |          |                        |                        | 1526.4    | D1             |
| South Cambridgeshire | 1334    | 242          | Bannold, Capability Barns, Huntingdon Road, Fen Drayton, CAMBRIDGE, CB24 4SD | Near Certain       | Employment               | Proposed tea rooms including associated structures, glasshouses and Victorian gardens.  | FEN DRAYTON          |         |          |                        |                        | 2040      | RTD            |
| South Cambridgeshire | 1335    | 242          | Bannold, Capability Barns, Huntingdon Road, Fen Drayton, CAMBRIDGE, CB24 4SD | Near Certain       | Employment               | Proposed tea rooms including associated structures, glasshouses and Victorian gardens.  | FEN DRAYTON          |         |          |                        |                        | 3400      | RTD            |

| DISTRICT             | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION  | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|----------------------|---------|--------------|--|--------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1336    | 242          | Bannold, Capability Barns, Huntingdon Road, Fen Drayton, CAMBRIDGE, CB24 4SD       | Near Certain       | Employment               | Proposed tea rooms including associated structures, glasshouses and Victorian gardens.  | FEN DRAYTON          |         |          |                        |                        | 6360      | A5             |
| South Cambridgeshire | 1337    | 241          | The Marketing Office, Cambourne Business Park Cambourne, CAMBRIDGE, CB23 6DW       | Near Certain       | Employment               | Change of use from marketing suite to cafe (A3) and office/meeting space (B1a)  | CAMBOURNE            |         |          |                        |                        | -66       | B1a            |
| South Cambridgeshire | 1338    | 241          | The Marketing Office, Cambourne Business Park Cambourne, CAMBRIDGE, CB23 6DW       | Near Certain       | Employment               | Change of use from marketing suite to cafe (A3) and office/meeting space (B1a)  | CAMBOURNE            |         |          |                        |                        | 12.4      | B1a            |
| South Cambridgeshire | 1339    | 241          | The Marketing Office, Cambourne Business Park Cambourne, CAMBRIDGE, CB23 6DW       | Near Certain       | Employment               | Change of use from marketing suite to cafe (A3) and office/meeting space (B1a)  | CAMBOURNE            |         |          |                        |                        | 53.6      | A3             |
| South Cambridgeshire | 1340    | 226          | Worts Farm, High Street, LANDBEACH, CB25 9FT                                       | Near Certain       | Employment               | Conversion of former archaeology store to create two dwellings with use of the former granary as ancillary residential use, erection of freestanding cycle and bin store, and extension of existing hardstanding                          | LANDBEACH            |         |          |                        |                        | -281.2    | B8             |
| South Cambridgeshire | 1341    | 238          | K W S (uk) Ltd, 56, Church Street, Thriplow, ROYSTON, SG8 7RE                      | Near Certain       | Employment               | Front Entrance Extension  | THRIPLow             |         |          |                        |                        | 1504      | B1b            |
| South Cambridgeshire | 1342    | 239          | Shepreth Wildlife Park, Station Road, Shepreth, ROYSTON, SG8 6PZ                   | Near Certain       | Employment               | Erection of an 6m x 8m workshop and storage so the exiting workshop adjacent to the animal unit can be converted into a Veterinary Room.  | SHEPRETH             |         |          |                        |                        | 9936      | D2             |
| South Cambridgeshire | 1343    | 226          | Cambridge Vacuum Engineering Ltd, Pembroke Avenue, Waterbeach, CAMBRIDGE, CB25 9QP | Near Certain       | Employment               | Extension   | WATERBEACH           |         |          |                        |                        | 0         | B2             |
| South Cambridgeshire | 1344    | 230          | Burwash Manor Farm, School Lane, Barton, Cambridge, Cambridgeshire, CB23 7BD       | Near Certain       | Employment               | Refurbishment of existing buildings 3 & 4. Construction of new buildings following demolition (buildings 1 & 2), with addition of PV cells. Change of Use from open fronted barns to Class A1 (building 1) and A3 (buildings 2, 3 and 4). | BARTON               |         |          |                        |                        | -2767.96  | B8             |
| South Cambridgeshire | 1345    | 230          | Burwash Manor Farm, School Lane, Barton, Cambridge, Cambridgeshire, CB23 7BD       | Near Certain       | Employment               | Refurbishment of existing buildings 3 & 4. Construction of new buildings following demolition (buildings 1 & 2), with addition of PV cells. Change of Use from open fronted barns to Class A1 (building 1) and A3 (buildings 2, 3 and 4). | BARTON               |         |          |                        |                        | 1158      | RTC            |
| South Cambridgeshire | 1346    | 230          | Burwash Manor Farm, School Lane, Barton, Cambridge, Cambridgeshire, CB23 7BD       | Near Certain       | Employment               | Refurbishment of existing buildings 3 & 4. Construction of new buildings following demolition (buildings 1 & 2), with addition of PV cells. Change of Use from open fronted barns to Class A1 (building 1) and A3 (buildings 2, 3 and 4). | BARTON               |         |          |                        |                        | 1609.6    | A3             |
| South Cambridgeshire | 1347    | 236          | Unit M4, Dales Manor Business Park, Babraham Road, Sawston, CAMBRIDGE, CB22 3TJ    | Near Certain       | Employment               | Change of use from Warehouse (Use Class B8) to Gym (Use Class D2)   | SAWSTON              |         |          |                        |                        | 202.4     | D2             |
| South Cambridgeshire | 1348    | 234          | National Trust, Wimpole Hall, Old Wimpole Road, Arrington, ROYSTON, SG8 0BW        | Near Certain       | Employment               | Alterations to cafe to create staff room, mess room, office and vet meds store for ancillary use  | WIMPOLE              |         |          |                        |                        | 0         | D2             |

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|----------------------|---------|--------------|---|------------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1349    | 234          | National Trust, Wimpole Hall, Old Wimpole Road, Arrington, ROYSTON, SG8 0BW     | Near Certain           | Employment               | Alterations to cafe to create staff room, mess room, office and vet meds store for ancillary use    | WIMPOLE              |         |          |                        |                        | 0         | D2             |
| South Cambridgeshire | 1350    | 238          | Wellcome Trust Genome Campus, Cambridge Road, Hinxton, Saffron Walden, CB10 1SA | Near Certain           | Employment               | Erection of Research and Development Building together with Ancillary Facilities and Infrastructure | HINXTON              |         |          |                        |                        | 1800      | B1b            |
| South Cambridgeshire | 1351    | 232          | Land Adjacent to CPC 3, Capital Park, Cambridge Road, FULBOURN, CB21 5XE        | Near Certain           | Employment               | Erection of cafe  | FULBOURN             |         |          |                        |                        | 324.8     | A3             |
| South Cambridgeshire | 1352    | 224          | 113-113a, King Street, Rampton, CAMBRIDGE, CB24 8QD                             | Near Certain           | Employment               | Prior Approval for Proposed Change of Use from Class B1(a) Offices to Class C3 (Two Dwellings)      | RAMPTON              |         |          |                        |                        | -79.2     | B1a            |
| South Cambridgeshire | 1353    | 241          | Cambourne Business Park, Plot 4000, School Lane, Cambourne, Cambridge, CB       | Near Certain           | Employment               | Erection of Office Building (Use Class B1) and Associated Parking                                   | CAMBOURNE            |         |          |                        |                        | 4910.432  | B1a            |
| South Cambridgeshire | 1354    | 241          | Land at, Buildings 3010 and 3030, Western Spur Road, Cambourne, Cambridge       | Near Certain           | Employment               | 2 R&D buildings (4366 sqm)  | CAMBOURNE            |         |          |                        |                        | 4735.5    | B1b            |
| South Cambridgeshire | 1355    | 241          | CAMBOURNE COMMUNITY CHURCH  | Near Certain           | Employment               | Church (643 sqm) and siting of cycle store and lean-to shed   | CAMBOURNE            |         |          |                        |                        | 1072.231  | D1             |
| South Cambridgeshire | 1356    | 229          | Cambridge Science Park  | more than Likely       | Employment               | Cambridge Science Park  | MILTON               |         |          |                        |                        | 0         | B1b            |
| South Cambridgeshire | 1357    | 234          | Green End Industrial Estate, Gamlingay  | Reasonably Foreseeable | Employment               | Green End Industrial Estate, Gamlingay  | GAMLINGAY            |         |          |                        |                        | -8180     | B2             |
| South Cambridgeshire | 1358    | 234          | Green End Industrial Estate, Gamlingay  | Reasonably Foreseeable | Employment               | Green End Industrial Estate, Gamlingay  | GAMLINGAY            |         |          |                        |                        | -8180     | B8             |
| South Cambridgeshire | 1359    | 234          | Green End Industrial Estate, Gamlingay  | Reasonably Foreseeable | Employment               | Green End Industrial Estate, Gamlingay  | GAMLINGAY            |         |          |                        |                        | 2040      | B1c            |
| South Cambridgeshire | 1360    | 234          | Green End Industrial Estate, Gamlingay  | Reasonably Foreseeable | Employment               | Green End Industrial Estate, Gamlingay  | GAMLINGAY            |         |          |                        |                        | 2040      | B1             |
| South Cambridgeshire | 1361    | 236          | Dales Manor Business Park, Sawston  | Reasonably Foreseeable | Employment               | Dales Manor Business Park, Sawston  | SAWSTON              |         |          |                        |                        | -21400    | B2             |

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|----------------------|---------|--------------|---|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1362    | 236          | Dales Manor Business Park, Sawston  | Reasonably Foreseeable | Employment               | Dales Manor Business Park, Sawston   | SAWSTON              |         |          |                        |                        | -21400    | B8             |
| South Cambridgeshire | 1363    | 236          | Dales Manor Business Park, Sawston  | Reasonably Foreseeable | Employment               | Dales Manor Business Park, Sawston   | SAWSTON              |         |          |                        |                        | 6000      | B1b            |
| South Cambridgeshire | 1364    | 232          | Fulbourn Road East  | more than Likely       | Employment               | Fulbourn Road East   | FULBOURN             |         |          |                        |                        | 27600     | B1             |
| South Cambridgeshire | 1365    | 225          | North of, Hattons Road, Longstanton, Cambridge, CB4                       | Reasonably Foreseeable | Employment               | North of Hattons Road, Longstanton   | LONGSTANTON          |         |          |                        |                        | 25200     | B1b            |
| South Cambridgeshire | 1366    | 232          | Industrial Allocation Fulbourn Hospitals, CAMBRIDGE ROAD, FULBOURN        | Reasonably Foreseeable | Employment               | Industrial allocation at Fulbourn Hospital. [R&M Estimate Residue of 13.584ha] | FULBOURN             |         |          |                        |                        | -107628   | D1             |
| South Cambridgeshire | 1367    | 232          | Industrial Allocation Fulbourn Hospitals, CAMBRIDGE ROAD, FULBOURN        | Reasonably Foreseeable | Employment               | Industrial allocation at Fulbourn Hospital. [R&M Estimate Residue of 13.584ha] | FULBOURN             |         |          |                        |                        | 53813.94  | D1             |
| South Cambridgeshire | 1368    | 232          | Industrial Allocation Fulbourn Hospitals, CAMBRIDGE ROAD, FULBOURN        | Reasonably Foreseeable | Employment               | Industrial allocation at Fulbourn Hospital. [R&M Estimate Residue of 13.584ha] | FULBOURN             |         |          |                        |                        | 53813.94  | D1             |
| South Cambridgeshire | 1369    | 238          | Land West of Eastern Counties Leather, LONDON ROAD, PAMPISFORD            | Reasonably Foreseeable | Employment               | West of Eastern Counties Leather, London Road, Pampisford                      | PAMPISFORD           |         |          |                        |                        | 4720      | B1             |
| South Cambridgeshire | 1370    | 223          | Land South of, NORMAN WAY, OVER   | Reasonably Foreseeable | Employment               | Norman Way, Over   | OVER                 |         |          |                        |                        | 2280      | B1c            |
| South Cambridgeshire | 1371    | 223          | Land South of, NORMAN WAY, OVER   | Reasonably Foreseeable | Employment               | Norman Way, Over   | OVER                 |         |          |                        |                        | 2280      | B1             |
| South Cambridgeshire | 1372    | 223          | Land South of, NORMAN WAY, OVER   | Reasonably Foreseeable | Employment               | Norman Way, Over   | OVER                 |         |          |                        |                        | 2280      | B2             |
| South Cambridgeshire | 1373    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road                                       | FEN DITTON           |         |          |                        |                        | 320       | B1             |
| South Cambridgeshire | 1374    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road                                       | FEN DITTON           |         |          |                        |                        | 440       | RTU            |



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|----------------------|---------|--------------|---|------------------------|--------------------------|--|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1375    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 440       | A2             |
| South Cambridgeshire | 1376    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 440       | A3             |
| South Cambridgeshire | 1377    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 440       | A4             |
| South Cambridgeshire | 1378    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 440       | A5             |
| South Cambridgeshire | 1379    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 760       | D2             |
| South Cambridgeshire | 1380    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 1200      | RTC            |
| South Cambridgeshire | 1381    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 1680      | B1a            |
| South Cambridgeshire | 1382    | 229          | Land surrounding, Park & Ride, Newmarket Road, Fen Ditton, Cambridge, CB5 | more than Likely       | Employment               | Cambridge East - North of Newmarket Road | FEN DITTON           |         |          |                        |                        | 9640      | D1             |
| South Cambridgeshire | 1383    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4    | Reasonably Foreseeable | Employment               | Northstowe                               | LONGSTANTON          |         |          |                        |                        | 664       | A2             |
| South Cambridgeshire | 1384    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4    | Reasonably Foreseeable | Employment               | Northstowe                               | LONGSTANTON          |         |          |                        |                        | 1196      | A3             |
| South Cambridgeshire | 1385    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4    | Reasonably Foreseeable | Employment               | Northstowe                               | LONGSTANTON          |         |          |                        |                        | 1196      | A4             |
| South Cambridgeshire | 1386    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4    | Reasonably Foreseeable | Employment               | Northstowe                               | LONGSTANTON          |         |          |                        |                        | 1196      | A5             |
| South Cambridgeshire | 1387    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4    | Reasonably Foreseeable | Employment               | Northstowe                               | LONGSTANTON          |         |          |                        |                        | 10800     | B2             |

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|----------------------|---------|--------------|---|------------------------|--------------------------|--|------------------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1388    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4        | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 29180     | D2             |
| South Cambridgeshire | 1389    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4        | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 4720      | RTC            |
| South Cambridgeshire | 1390    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4        | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 14800     | B8             |
| South Cambridgeshire | 1391    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4        | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 54060     | D1             |
| South Cambridgeshire | 1392    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4        | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 12464     | RTD            |
| South Cambridgeshire | 1393    | 225          | Land at, Oakington Barracks, Rampton Road, Longstanton, Cambridge, CB4        | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 34400     | B1             |
| South Cambridgeshire | 1394    | 225          | Land at, Cambridge Golf Club, Rampton Road, Longstanton, Cambridge, CB4       | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 42800     | D2             |
| South Cambridgeshire | 1395    | 225          | Land at, Cambridge Golf Club, Rampton Road, Longstanton, Cambridge, CB4       | Reasonably Foreseeable | Employment               | Northstowe   | LONGSTANTON                  |         |          |                        |                        | 65600     | D1             |
| South Cambridgeshire | 1396    | 242          | Papworth Hospital, ERMINE STREET SOUTH, PAPWORTH EVERARD, CAMBRIDGE, CB23 3QB | Reasonably Foreseeable | Employment               | Papworth Hospital Site   | PAPWORTH EVERARD             |         |          |                        |                        | 20640     | C2             |
| South Cambridgeshire | 1397    | 226          | Land north of Waterbeach  | Reasonably Foreseeable | Employment               | Waterbeach New Town  | WATERBEACH                   |         |          |                        |                        |           |                |
| South Cambridgeshire | 1398    | 242          | Land at Bourn Airfield  | Reasonably Foreseeable | Employment               | Bourn Airfield New Village                                       | BOURN                        |         |          |                        |                        |           |                |
| South Cambridgeshire | 1399    | 517          | A428 Black Cat - Caxton Gibbet dualling                                       | Reasonably Foreseeable | Highway                  | Included in Govt Roads Investment Strategy                       | South Cams / Huntingdonshire |         |          |                        |                        |           |                |
| South Cambridgeshire | 1400    | 517          | A14 Cambridge to Huntingdon Improvement scheme                                | Reasonably Foreseeable | Highway                  | DCO examination complete. PINS recommendation to SoS in Feb 2016 | South Cams / Huntingdonshire |         |          |                        |                        |           |                |

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|----------------------|---------|--------------|---|------------------------|--------------------------|--|-------------------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| South Cambridgeshire | 1401    | 517          | High Quality Public Transport services on the St Neots (A428), Haverhill (A1307) and Royston (A10) corridors  | Reasonably Foreseeable | Highway                  | Included in South Cambs Local Plan modelling | South Cambs / Huntingdonshire |         |          |                        |                        |           |                |
| South Cambridgeshire | 1402    | 517          | Additional Park and Ride sites on the A428, the A1307 and at Hauxton on the A10, and the re-location of Newmarket Road P&R to Airport Way   | Reasonably Foreseeable | Highway                  | Included in South Cambs Local Plan modelling | South Cambs / Huntingdonshire |         |          |                        |                        |           |                |
| South Cambridgeshire | 1403    | #N/A         | Inner Park and Ride site expansion of capacity - Segregated access at Babraham Rd P&R, Milton P&R bus priority at Milton Interchange and Hauxton M11 P&R access improvements. Relocation of Newmarket Rd P&R site to east of Airport Way (as TIF) coded for 2021 onwards. | Reasonably Foreseeable | Highway                  | Included in South Cambs Local Plan modelling | South Cambs                   |         |          |                        |                        |           |                |
| South Cambridgeshire | 1404    | #N/A         | Western Orbital bus service from Cambridge Science Park Station to Addenbrooke's  | Reasonably Foreseeable | Highway                  | Included in South Cambs Local Plan modelling | South Cambs                   |         |          |                        |                        |           |                |
| South Cambridgeshire | 1405    | #N/A         | Improvements in rail services, speed and capacity, including Thameslink upgrade and improved rolling stock to provide improved capacity to London, and onward accessibility to south London.  | Reasonably Foreseeable | Rail                     | Included in South Cambs Local Plan modelling | South Cambs                   |         |          |                        |                        |           |                |
| Chelmsford           | 1500    | 150          | Former Marconi Works, New Street, Chelmsford  | Near Certain           | Residential              | TCAAP19                                      | Chelmsford                    |         |          | 361                    | 0                      |           |                |
| Chelmsford           | 1501    | 149          | University Campus, Phase 1 north, part of Central Park and land at Park Road, Chelmsford  | Near Certain           | Residential              | TCAAP20                                      | Chelmsford                    |         |          | 3                      | 0                      |           |                |
| Chelmsford           | 1502    | 149          | University Campus, Phase 2, part of Central Park and land at Park Road, Chelmsford  | Near Certain           | Residential              | TCAAP20                                      | Chelmsford                    |         |          | 386                    | 0                      |           |                |
| Chelmsford           | 1503    | 150          | Land north west of Essex County Cricket Ground, New Writtle Street, Chelmsford  | Near Certain           | Residential              | TCAAP14                                      | Chelmsford                    |         |          | 357                    | 0                      |           |                |
| Chelmsford           | 1504    | 150          | Smiths Yard, Wharf Road, Chelmsford   | Near Certain           | Residential              | TCAAP5                                       | Chelmsford                    |         |          | 14                     | 0                      |           |                |
| Chelmsford           | 1505    | 150          | 24 Duke Street  | Near Certain           | Residential              | TCAAP10 (part of)                            | Chelmsford                    |         |          | 84                     | 0                      |           |                |
| Chelmsford           | 1506    | 148          | Waterfront Place, Wharf Road, Chelmsford  | Near Certain           | Residential              | TCAAP5                                       | Chelmsford                    |         |          | 52                     | 0                      |           |                |
| Chelmsford           | 1507    | 150          | Royal Mail Sorting Office, 30 Victoria Road, Chelmsford   | Near Certain           | Residential              | TCAAP9                                       | Chelmsford                    |         |          | 37                     | 0                      |           |                |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION  | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION | DEVELOPMENT LOCATION                     | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|---|------------------------|--------------------------|------------------------------------|--|---------|----------|------------------------|------------------------|-----------|----------------|
| Chelmsford | 1508    | 149          | Essex County Council Transport Department, Coval Lane, Chelmsford                       | Near Certain           | Residential              | TCAAP22                            | Chelmsford                               |         |          | 35                     | 0                      |           |                |
| Chelmsford | 1509    | 150          | Car Park Eastern End, Wharf Road, Chelmsford  | more than Likely       | Residential              | TCAAP24                            | Chelmsford                               |         |          | 400                    | 0                      |           |                |
| Chelmsford | 1510    | 150          | Car Park to Eastwood House, Glebe Road, Chelmsford                                      | more than Likely       | Residential              | TCAAP23                            | Chelmsford                               |         |          | 0                      | 133                    |           |                |
| Chelmsford | 1511    | 150          | Globe House and Ashby House Car Parks, Chelmsford                                       | more than Likely       | Residential              | TCAAP35                            | Chelmsford                               |         |          | 0                      | 111                    |           |                |
| Chelmsford | 1512    | 150          | Lockside Industrial Area, Navigation Road, Chelmsford                                   | more than Likely       | Residential              | TCAAP27                            | Chelmsford                               |         |          | 100                    | 0                      |           |                |
| Chelmsford | 1513    | 150          | British Gas Depot, Wharf Road, Chelmsford   | more than Likely       | Residential              | TCAAP5                             | Chelmsford                               |         |          | 80                     | 0                      |           |                |
| Chelmsford | 1514    | 150          | Part of Car Park and verge fronting Riverside, Victoria Road, Chelmsford                | Reasonably Foreseeable | Residential              | TCAAP29                            | Chelmsford                               |         |          | 0                      | 62                     |           |                |
| Chelmsford | 1515    | 150          | Car Park, Fairfield Road, Chelmsford  | more than Likely       | Residential              | TCAAP17                            | Chelmsford                               |         |          | 30                     | 25                     |           |                |
| Chelmsford | 1516    | 150          | The Island Car Park, High Bridge Road, Chelmsford                                       | Reasonably Foreseeable | Residential              | TCAAP5                             | Chelmsford                               |         |          | 0                      | 50                     |           |                |
| Chelmsford | 1530    | 142          | Land north, south and east of Belsteads Farm Lane, Broomfield (Channels) - Phase 1      | Near Certain           | Residential              | NCAAP 6, 26-27                     | Broomfield - Broomfield and the Walthams |         |          | 181                    | 0                      |           |                |
| Chelmsford | 1531    | 142          | Land north, south and east of Belsteads Farm Lane, Broomfield (Channels) - Phase 2      | Near Certain           | Residential              | NCAAP 6, 26-27                     | Broomfield - Broomfield and the Walthams |         |          | 95                     | 0                      |           |                |
| Chelmsford | 1532    | 142          | Land north, south and east of Belsteads Farm Lane, Broomfield (Channels) - Phase 3A & B | Near Certain           | Residential              | NCAAP 6, 26-27                     | Broomfield - Broomfield and the Walthams |         |          | 74                     | 0                      |           |                |
| Chelmsford | 1533    | 142          | Land north, south and east of Belsteads Farm Lane, Broomfield (Channels) - Phase 3C & D | Near Certain           | Residential              | NCAAP 6, 26-27                     | Broomfield - Broomfield and the Walthams |         |          | 76                     | 0                      |           |                |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION   | SCHEME PROBABILITY | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION | DEVELOPMENT LOCATION                     | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|--|--------------------|--------------------------|------------------------------------|--|---------|----------|------------------------|------------------------|-----------|----------------|
| Chelmsford | 1535    | 142          | Land north, south and east of Belsteads Farm Lane, Broomfield (Channels) - Phase 5 | Near Certain       | Residential              | NCAAP 6, 26-27                     | Broomfield - Broomfield and the Walthams |         |          | 200                    | 0                      |           |                |
| Chelmsford | 1536    | 142          | Land north, south and east of Belsteads Farm Lane, Broomfield (Channels) - Phase 6 | Near Certain       | Residential              | NCAAP 6, 26-27                     | Broomfield - Broomfield and the Walthams |         |          | 95                     | 0                      |           |                |
| Chelmsford | 1537    | 142          | Land south west of Broomfield Place, Main Road, Broomfield                         | Near Certain       | Residential              | NCAAP2                             | Broomfield - Broomfield and the Walthams |         |          | 223                    | 0                      |           |                |
| Chelmsford | 1538    | 142          | Land east of North Court Road and north of Hospital Approach, Broomfield           | Near Certain       | Residential              | NCAAP1                             | Broomfield - Broomfield and the Walthams |         |          | 268                    | 0                      |           |                |
| Chelmsford | 1539    | 142          | Land north of Copperfield Road (East portion), Chelmsford                          | Near Certain       | Residential              | NCAAP4                             | Broomfield - Broomfield and the Walthams |         |          | 198                    | 0                      |           |                |
| Chelmsford | 1540    | 142          | Land north of Copperfield Road (west portion), Chelmsford                          | Near Certain       | Residential              | NCAAP4                             | Broomfield - Broomfield and the Walthams |         |          | 60                     | 0                      |           |                |
| Chelmsford | 1541    | 141          | Land south of Park Farm Cottages, Belsteads Farm Lane, Broomfield                  | more than Likely   | Residential              | NCAAP11                            | Broomfield - Broomfield and the Walthams |         |          | 0                      | 750                    |           |                |
| Chelmsford | 1546    | 145          | Greater Beaulieu Park, White Hart Lane, Springfield - Phase 1 - Zone B             | Near Certain       | Residential              | NCAAP 5,7-10,12                    | Springfield - Springfield North          |         |          | 77                     | 0                      |           |                |
| Chelmsford | 1547    | 145          | Greater Beaulieu Park, White Hart Lane, Springfield - Phase 1 - Zone A             | Near Certain       | Residential              | NCAAP 5,7-10,12                    | Springfield - Springfield North          |         |          | 184                    | 0                      |           |                |
| Chelmsford | 1548    | 145          | Greater Beaulieu Park, White Hart Lane, Springfield - Phase 1 - Zone E             | Near Certain       | Residential              | NCAAP 5,7-10,12                    | Springfield - Springfield North          |         |          | 178                    | 0                      |           |                |
| Chelmsford | 1549    | 145          | Greater Beaulieu Park, White Hart Lane, Springfield - Phase 1 - Zone C             | Near Certain       | Residential              | NCAAP 5,7-10,12                    | Springfield - Springfield North          |         |          | 222                    | 0                      |           |                |
| Chelmsford | 1550    | 145          | Greater Beaulieu Park, White Hart Lane, Springfield - Phase 1 - Zone F             | Near Certain       | Residential              | NCAAP 5,7-10,12                    | Springfield - Springfield North          |         |          | 77                     | 0                      |           |                |
| Chelmsford | 1551    | 145          | Greater Beaulieu Park, White Hart Lane, Springfield - Bean Field                   | more than Likely   | Residential              | NCAAP - part of 5                  | Springfield - Springfield North          |         |          | 50                     | 0                      |           |                |

| DISTRICT   | Log Ref | WYG Zone ref | SCHEME DESCRIPTION  | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION                                    | DEVELOPMENT LOCATION               | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|------------|---------|--------------|---|------------------------|--------------------------|---|------------------------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| Chelmsford | 1552    | 145          | Greater Beaulieu Park, White Hart Lane, Springfield - Phases 2-4              | Near Certain           | Residential              | NCAAP 5,7-10,12   | Springfield - Springfield North    |         |          | 366                    | 2413                   |           |                |
| Chelmsford | 1556    | 152          | St Johns Hospital, Wood Street (South), Chelmsford - Inland Homes             | Near Certain           | Residential              | SAD11   | Chelmsford - Gbat Hall             |         |          | 77                     | 0                      |           |                |
| Chelmsford | 1559    | 161          | Runwell Hospital, Runwell Chase, Runwell                                      | Near Certain           | Residential              | SAD17   | Rettendon - Rettendon & Runwell    |         |          | 535                    | 40                     |           |                |
| Chelmsford | 1577    | 152          | Royal & Sunalliance, Parkview House, Victoria Road South                      | more than Likely       | Residential              | TCAAP   | Chelmsford - Moulsham and Central  |         |          | 55                     | 0                      |           |                |
| Chelmsford | 1578    | 150          | South Lodge Hotel, 196 New London Road, Chelmsford                            | Near Certain           | Residential              | TCAAP   | Chelmsford - Moulsham and Central  |         |          | 65                     | 0                      |           |                |
| Chelmsford | 1579    | 150          | London House, 111 New London Road, Chelmsford                                 | Near Certain           | Residential              | TCAAP   | Chelmsford - Moulsham and Central  |         |          | 55                     | 0                      |           |                |
| Chelmsford | 1588    | 154          | Rosehart Properties Ltd, Block B, Chelmsford Office and Technology Park (BAE) | more than Likely       | Residential              | SAD   | Great Baddow - Great Baddow East   |         |          | 65                     | 0                      |           |                |
| Chelmsford | 1589    | 153          | Marrable House, The Vineyards, Great Baddow                                   | Near Certain           | Residential              | SAD   | Great Baddow - Great Baddow East   |         |          | 58                     | 0                      |           |                |
| Chelmsford | 1590    | 145          | Beaulieu Station  | Near Certain           | Mixed-use                |   | North Chelmsford: Beaulieu Station |         |          |                        |                        |           |                |
| Chelmsford | 1591    | 150          | City Park West (Former Central Campus): Phase 2                               | Near Certain           | Residential              |   | Chelmsford - City Park             |         |          | 200                    |                        |           |                |
| Chelmsford | 1592    | 150          | New Writtle Street (Cricket Ground), City centre, Chelmsford                  | Near Certain           | Mixed-use                |   | Chelmsford - City Centre           |         |          | 360                    |                        |           |                |
| Braintree  | 1593    | #N/A         | Resi 22UC0 Sc11   | Reasonably Foreseeable | Residential              | No data available at the time of preparation so TEMPRO growth assumed | Rural                              |         |          |                        | 6717                   |           |                |
| Braintree  | 1594    | 118          | Resi 22UC1 Sc11   | Reasonably Foreseeable | Residential              | No data available at the time of preparation so TEMPRO growth assumed | Braintree                          |         |          |                        | 3478                   |           |                |

| DISTRICT      | Log Ref | WYG Zone ref | SCHEME DESCRIPTION                             | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION                                    | DEVELOPMENT LOCATION | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class |
|---------------|---------|--------------|--|------------------------|--------------------------|---|----------------------|---------|----------|------------------------|------------------------|-----------|----------------|
| Braintree     | 1595    | 126          | Resi 22UC2 Sc11                                | Reasonably Foreseeable | Residential              | No data available at the time of preparation so TEMPRO growth assumed | Witham               |         |          |                        | 1120                   |           |                |
| Braintree     | 1599    | 121          | Resi 22UC6 Sc11                                | Reasonably Foreseeable | Residential              | No data available at the time of preparation so TEMPRO growth assumed | Silver End           |         |          |                        | 450                    |           |                |
| Braintree     | 1603    | #N/A         | Jobs 22UC0 Sc11                                | Reasonably Foreseeable | Employment               | No data available at the time of preparation so TEMPRO growth assumed | Rural                |         |          |                        | 0                      |           |                |
| Braintree     | 1604    | 118          | Jobs 22UC1 Sc11                                | Reasonably Foreseeable | Employment               | No data available at the time of preparation so TEMPRO growth assumed | Braintree            |         |          |                        | 0                      |           |                |
| Braintree     | 1605    | 126          | Jobs 22UC2 Sc11                                | Reasonably Foreseeable | Employment               | No data available at the time of preparation so TEMPRO growth assumed | Witham               |         |          |                        | 0                      |           |                |
| Uttlesford    | 223a    | 106          | Stansted Airport                               | Hypothetical           |                          | Doubling of current cargo throughput to 400,000 tonnes per annum      | Stansted Airport     | 555708  | 223680   |                        |                        |           |                |
| Epping Forest | 229a    | 183          | High Street - Site ONG-1                       | Reasonably Foreseeable | Residential              | 5 Dwellings   | Chipping Ongar       | 555260  | 203033   | 0                      | 5                      |           |                |
| Epping Forest | 237a    | 185          | Nicholl Road - Site EPP-2                      | Reasonably Foreseeable | Residential              | 35 Dwellings  | Epping               | 545912  | 201813   | 10                     | 35                     |           |                |
| Epping Forest | 237b    | 185          | Centre Drive - Site EPP-3                      | Reasonably Foreseeable | Residential              | 12 Dwellings  | Epping               | 546114  | 201640   | 4                      | 12                     |           |                |
| Epping Forest | 252a    | 190          | Chigwell Lane / The Broadway - Site LOU-7      | Reasonably Foreseeable | Residential              | 19 Dwellings  | Loughton / Debden    | 544062  | 196421   | 0                      | 19                     |           |                |
| Epping Forest | 252b    | 190          | Chigwell Lane - Site LOU-8                     | Reasonably Foreseeable | Residential              | 41 Dwellings  | Loughton / Debden    | 544174  | 196260   | 5                      | 41                     |           |                |
| Epping Forest | 254a    | 193          | Albion Hill - Site LOU-11                      | Reasonably Foreseeable | Residential              | 10 Dwellings  | Loughton / Debden    | 541496  | 195668   | 12                     | 10                     |           |                |
| Epping Forest | 272a    | 184          | B1393 High Road / Weald Hall Lane - Site THO-1 | Reasonably Foreseeable | Residential              | 10 Dwellings  | Thornwood Common     | 547206  | 204622   | 3                      | 10                     |           |                |

| DISTRICT      | Log Ref | WYG Zone ref | SCHEME DESCRIPTION                                    | SCHEME PROBABILITY     | PRIMARY DEVELOPMENT TYPE | ADDITIONAL DEVELOPMENT INFORMATION          | DEVELOPMENT LOCATION          | Easting | Northing | Housing 2021 (numbers) | Housing 2036 (numbers) | GFA (sqm) | Land Use Class      |
|---------------|---------|--------------|---|------------------------|--------------------------|---|-------------------------------|---------|----------|------------------------|------------------------|-----------|---------------------|
| Epping Forest | 279a    | 188          | Highbridge Street / Quaker Lane - Site WAL-1          | Reasonably Foreseeable | Mixed                    | 56 Dwellings and 0.7 hectares of Employment | Waltham Abbey                 | 538510  | 200433   | 16                     | 56                     | 2800      | B1 (General Office) |
| Epping Forest | 279c    | 187          | Mason Close - Site WAL-3                              | Reasonably Foreseeable | Residential              | 10 Dwellings                                | Waltham Abbey                 | 539444  | 200424   | 3                      | 10                     |           |                     |
| Epping Forest | 279d    | 187          | Broomstick Hall Road - Site WAL-4                     | Reasonably Foreseeable | Residential              | 220 Dwellings                               | Waltham Abbey                 | 539339  | 200786   | 63                     | 220                    |           |                     |
| Harlow        | 305a    | 197          | Parcel 2 New Hall Phase 2                             | Near Certain           | Residential              | Planning permission granted 239 Dwellings   | Greater Harlow                | 547813  | 210516   | 0                      | 0                      |           |                     |
| East Herts    | 34a     | 172          | Land to North of Sawbridgeworth                       | Reasonably Foreseeable | Residential              | 250 Dwellings                               | Sawbridgeworth                | 548554  | 215850   | 100                    | 250                    |           |                     |
| East Herts    | 40b     | 173          | Land North and East of Ware (Policy WARE3)            | Hypothetical           | Residential              | 200 Dwellings                               | Ware                          | 536692  | 215280   | 200                    | 200                    |           |                     |
| East Herts    | 43a     | 167          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 15 dwellings                                | High Cross                    | 536469  | 218575   | 8                      | 15                     |           |                     |
| East Herts    | 43b     | 164          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 35 dwellings                                | Braughing                     | 539514  | 225113   | 18                     | 35                     |           |                     |
| East Herts    | 43c     | 170          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 37 dwellings                                | Hunsdon                       | 541937  | 214071   | 19                     | 37                     |           |                     |
| East Herts    | 43d     | 164          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 25 dwellings                                | Little Hadham and Hadham Ford | 543672  | 222285   | 13                     | 25                     |           |                     |
| East Herts    | 43e     | 170          | Infill Development in Group 1 Villages (Policy VILL1) | Reasonably Foreseeable | Residential              | 19 dwellings                                | Widford                       | 542071  | 215770   | 10                     | 19                     |           |                     |
| East Herts    | 54a     | 164          | Greater Little Hadham                                 | Hypothetical           | Residential              | 0   | Little Hadham                 | 544517  | 222550   | 0                      | 0                      |           |                     |





## **Appendix E – TN5 - Sustainable Travel/AoS Accessibility**



## Uttlesford District Council

### District Wide Transport Study

#### Technical Note 5 – Sustainable travel / Areas of Search (AoS) Accessibility

#### 1 Introduction

- 1.1 This note summarises a review of the accessibility of the main Areas of Search (AoS) being considered for the new Uttlesford Local Plan. It considers existing accessibility by sustainable travel and potential opportunities to improve the sustainable transport and movement networks within Uttlesford to serve new development.

#### 2 Areas of Search

- 2.1 The AoS under consideration are indicated in the plans in **Appendix A** which have been extracted from the 'Uttlesford Local Plan Issues and Options Consultation Document 22 October – 4 December 2015'.
- 2.2 Several of the AoS shown in **Appendix A** have been ruled out since the Issues and Options Consultation due to the findings of the Green Belt and Countryside Protection Zone (CPZ) reviews and no interest being received for development in some areas following a 'Call for Sites Consultation'. Taking these into account this note considers the following AoS:

**Table 1 – AoS Considered**

| Ref                    | AoS   |
|------------------------|---|
| <b>New Settlements</b> |   |
| NS1                    | M11 Junction 9a East  |
| NS3                    | Elsenham (this site was subsequently removed see para' 8.7) |
| NS7                    | North of A120, West of Gt. Dunmow                           |
| NS9                    | West of Braintree   |
| NS9                    | Little Dunmow   |
| AoS 13                 | North of Takeley - Key village extension                    |
| <b>Market Towns</b>    |   |
| MT1                    | Saffron (7 sites)   |
| MT2                    | Gt. Dunmow (6 sites)  |
| <b>Key Villages</b>    |   |
| KV1                    | Elsenham  |
| KV2                    | Gt. Chesterford   |
| KV4                    | Newport   |
| KV5                    | Stansted Mountfitchet (North only)                          |
| KV6                    | Takeley   |
| KV7                    | Thaxted   |

- 2.3 This note has been prepared to evaluate potential sites for new development within UDC in order to investigate options to best maximise opportunities to encourage and facilitate sustainable travel in the district. It explores a number of potential sites in terms of their locational context, including accessibility to existing key services and transport linkages, policy context and likelihood of the potential development to prompt development of new networks and / or unlock improvements to existing networks.



### **3 Undertake a review of relevant national and local transport policy, guidance and best practice and produce a summary relevant to Uttlesford**

#### Existing and Emerging Development Plans

- 3.1 The Local Planning Authorities (LPA) adjoining Uttlesford have adopted plans but these need updating with new plans. Uttlesford falls within the West Essex and East Hertfordshire Housing Market Area (HMA). Each of the LPAs within the HMA are currently preparing new local plans and East Hertfordshire Council is due to consider its pre-submission Plan in late September 2016.
- 3.2 Most growth within the HMA and a significant proportion of the infrastructure required to deliver the growth is focused around Harlow as the largest, most sustainable town. Key transport improvements are planned including a new junction onto the M11 motorway (Junction 7A) to help accommodate the growth planned in the HMA.
- 3.3 Beyond the HMA South Cambridgeshire has an adopted Core Strategy with its emerging Local Plan at examination stage. No major allocations are proposed in the vicinity of the Uttlesford border. The approach adopted by South Cambridgeshire is one of strict control of competing land-uses focusing growth at key locations linked by sustainable transport corridors to Cambridge. South Cambridgeshire and Cambridge City Councils intend a joint plan review in 2019.
- 3.4 Braintree District Council, Colchester Borough Council, and Tendring District Council together forming the 'North Essex Authorities' have produced a Preferred Options Local Plan Part One (Core Strategy) as a coordinated response to significant future growth. The joint strategy proposes three co-terminus new settlements including a site to the West of Braintree with 2,500 homes in the plan period and potentially 1,400 homes from land within Uttlesford. This site could ultimately build to a new settlement of 13,000 homes with key supporting facilities. Significant supporting transport infrastructure is programmed including widening of the A12(T) and measures on the A120(T) corridor.

#### NATIONAL POLICY

##### National Planning Policy Framework

- 3.5 The National Planning Policy Framework was published on 27 March 2012 and constitutes guidance for local planning authorities and decision-takers both in drawing up development plans and as a material consideration in determining applications. The NPPF replaces previous planning policy statements and planning policy guidance.
- 3.6 The National Planning Policy Framework must be taken into account in the preparation of Local and neighbourhood Plans, and is a material consideration in planning decisions. It states that in order to be considered sound a Local Plan should be consistent with national planning policy.
- 3.7 Paragraph 6 of the Framework refers to the purpose of the planning system to contribute to the achievement of sustainable development and this is a continuing theme throughout the whole of the document.
- 3.8 Paragraph 7 refers to three dimensions to sustainable development – economic, social and environmental;
  - Economic – identify/coordinate development requirements including infrastructure
  - Social – quality built environment with accessible local services
  - Environmental – minimise pollution



- 3.9 At the heart of the NPPF is a presumption in favour of sustainable development. In terms of transport, one of the core planning principles is to actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are, or can be made sustainable.
- 3.10 The NPPF states that developments should be located and designed where practical to give priority to pedestrian and cycle movements, and have access to high quality public transport facilities; create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians; and consider the needs of people with disabilities by all modes of transport.

### PPG: Transport Evidence Bases in Plan Making and Decision Taking

- 3.11 In March 2014 the Department for Communities and Local Government (DCLG) produced a web-based resource of planning practice guidance that superseded previous guidance. This includes 'Transport Evidence Bases in Plan Making and Decision Taking' which sets out why, how and when Local Planning Authorities should produce robust transport evidence bases in support of new or revised Local Plans. The guidance states:

*"A robust transport evidence base can facilitate approval of the Local Plan and reduce costs and delays to the delivery of new development, thus reducing the burden on the public purse and private sector."*

*"The transport evidence base should identify the opportunities for encouraging a shift to more sustainable transport usage, where reasonable to do so; and highlight the infrastructure requirements for inclusion in infrastructure spending plans linked to the Community Infrastructure Levy, section 106 provisions and other funding sources."*

*"A robust evidence base will enable an assessment of the transport impacts of both existing development as well as that proposed, and can inform sustainable approaches to transport at a plan-making level. This will include consideration of viability and deliverability."*

- 3.12 The guidance identifies the key issues that should be considered in developing a Local Plan transport evidence base, outlines assessment methodology and defines the key stages of Local Plan preparation when transport assessment work should be undertaken.
- 3.13 This study has been prepared following the advice contained with the PPG guidance note and has considered strategic transport issues within Uttlesford district and beyond, where impacts could be significant, at key stages of the Local Plan production.

### DfT Circular 02/2013: Strategic road network and the delivery of sustainable development

- 3.14 This circular explains how Highways England will engage with the planning system. It also gives details on how Highways England will fulfil its remit to be a delivery partner for sustainable economic growth whilst maintaining, managing and operating a safe and efficient strategic road network.
- 3.15 The Circular confirms that the primary aim of Highways England is the continued safe operation of its network (i.e. Motorways and Trunk Roads) and that development proposals are likely to be acceptable if they can be accommodated within the existing capacity of a section of the strategic road network, or they do not increase demand for use of a section that is already operating at



over-capacity levels. However, development should only be prevented or refused on transport grounds where the residual cumulative impacts are severe<sup>1</sup>.

3.16 Regarding the preparation of Local Plans the circular states:

*"In framing its contribution to the development of Local Plans, the Highways Agency's aim will be to influence the scale and patterns of development so that it is planned in a manner which will not compromise the fulfilment of the primary purpose of the strategic road network."*

*"Through the production of Local Plans, development should be promoted at locations that are or can be made sustainable, that allow for uptake of sustainable transport modes and support wider social and health objectives, and which support existing business sectors as well as enabling new growth."*

*"Capacity enhancements and infrastructure required to deliver strategic growth should be identified at the Local Plan stage, which provides the best opportunity to consider development aspirations alongside the associated strategic infrastructure needs."*

*"Where a potential capacity need is identified, this will be considered and weighed alongside environmental and deliverability considerations. Additional capacity may be considered in the context of the Highways Agency's forward programme of works, balancing the needs of motorists and other road users with wider impact on the environment and the local/regional community."*

3.17 This Transport Study has been produced in consultation with Highways England (formerly the Highways Agency) and the revised Local Plan for Uttlesford has been developed having due regard to the guidance contained within Circular 02/2013.

### Essex Transport Strategy: the Local Transport Plan for Essex

3.18 Essex County Council's third Local Transport Plan (LTP3) sets out the County Council's vision for transport which is:

*"A transport system that supports sustainable economic growth and helps deliver the best quality of life for the residents of Essex."*

3.19 The LTP3 sets out the outcomes the Council will aim to achieve over a fifteen year period to 2026 and identifies the policies for transport and the broad approach to implementing these. An implementation plan is also included which sets out how the outcomes of the strategy will be delivered and monitored and the short-term priorities for investment.

3.20 LTP3 outlines the following five objectives:

- Provide connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration.
- Reduce carbon dioxide emissions and improve air quality through lifestyle changes, innovation and technology.
- Improve safety on the transport network and enhance and promote a safe travelling environment.
- Secure and maintain all transport assets to an appropriate standard and ensure that the network is available for use.

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<sup>1</sup> There is no standard definition of severe. Each case is assessed on its own merits in the context of local transport conditions.



- Provide sustainable access and travel choice for Essex residents to help create sustainable communities.

3.21 This Transport Study has been produced in consultation with Essex County Council and the new Local Plan for Uttlesford has been developed having due regard to the objectives of LTP3.

### Cambridgeshire Local Transport Plan (LTP3)

3.22 The third Cambridgeshire LTP (2011 – 2031) has been produced in partnership with Cambridge City Council and the district councils of East Cambridgeshire, Fenland, Huntingdonshire and South Cambridgeshire and sets out policies and plans for transport to contribute towards the County Council's vision:

*"Creating communities where people want to live and work: now and in the future."*

3.23 The LTP acknowledges that opportunities to deliver transport improvements funded from traditional sources are relatively limited however, a City Deal for the Greater Cambridge area will provide up to £500 Million to invest in transport infrastructure in the next 15-20 years. The Council is therefore well placed to deliver improvements for the Cambridge area identified in the LTP Long Term Transport Strategy (and in the Transport Strategy for Cambridge and South Cambridgeshire that sits under it) that will support economic and housing growth.

3.24 The LTP3 document addresses the County Councils priorities. These are:

- Supporting and protecting people when they need it most
- Helping people to live independent and healthy lives in their communities
- Developing our local economy for the benefit of all

3.25 One of the key aims of the transport strategy set out in the LTP3 is to support the development strategy for Cambridgeshire by aiming to reduce the need to travel and by providing sustainable travel options for new developments.

3.26 The LTP3 seeks to address eight challenges:

- Improving the reliability of journey times by managing demand for road space, where appropriate and maximising the capacity and efficiency of the existing network.
- Reducing the length of commute and the need to travel by private car.
- Making sustainable modes of transport a viable and attractive alternative to the private car.
- Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change.
- Ensuring people - especially those at particular risk of social exclusion - can access the services they need within reasonable time, cost and effort wherever they live in the county.
- Addressing the main causes of road accidents in Cambridgeshire.
- Protecting and enhancing the natural environment by minimising the environmental impact of transport.
- Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire.

3.27 To help address these challenges whilst accommodating Local Plan development within Cambridge City and South Cambridgeshire District a joint transport strategy has been developed that forms part of the LTP3 suite of documents.



## Transport Strategy for Cambridge and South Cambridgeshire (TSCSC).

3.28 The TSCSC sets out a transport strategy for facilitating the employment and residential growth within Cambridge and South Cambridgeshire District identified in the Council's respective Draft Local Plans. These plans are expected to deliver around 33,000 new homes in and around the city and in South Cambridgeshire to help accommodate 44,000 new jobs in the period to 2031.

3.29 The purpose of the strategy is to:

- Provide a detailed policy framework and programme of schemes for the area, addressing current problems and consistent with the policies of the Third Cambridgeshire Local Transport Plan 2011-26 (LTP3).
- Support the Cambridge and South Cambridgeshire Local Plans, and take account of committed and predicted levels of growth, detailing the transport infrastructure and services necessary to deliver this growth.

3.30 An extract from the vision for the TSCSC is reproduced as follows:

*"In the future, Cambridge and the surrounding area of South Cambridgeshire will be renowned for its efficient, accessible and sustainable transport system which will support a thriving and beautiful historic core, and provide efficient and networked links to and from the city, its major employment hubs, and the bustling villages and key centres beyond."*

3.31 Eight objectives are identified for the TSCSC. These are:

- To ensure that the transport network supports the economy and acts as a catalyst for sustainable growth.
- To enhance accessibility to, from and within Cambridge and South Cambridgeshire (and beyond the strategy area).
- To ensure good transport links between new and existing communities, and the jobs and services people wish to access.
- To prioritise sustainable alternatives to the private car in the strategy area, and reduce the impacts of congestion on sustainable modes of transport. Transport Strategy for Cambridge and South Cambridgeshire.
- To meet air quality objectives and carbon reduction targets, and preserve the natural environment.
- To ensure that changes to the transport network respect and conserve the distinctive character of the area and people's quality of life.
- To ensure the strategy encourages healthy and active travel, supporting improved wellbeing.
- To manage the transport network effectively and efficiently

3.32 The focus of the policies presented in the TSCSC is to:

- Manage the demand for general vehicular travel and reduce through traffic in Cambridge
- Prioritise road safety, particularly for pedestrians and cyclists
- Meet environmental objectives in terms of air quality and reducing transport related emissions
- Support economic growth, mitigate transport impacts of growth and help protect the area's distinctive character and environment

3.33 To achieve this, sustainable transport capacity will be provided in and around the city between key employment areas, and to where people live and access services. The backbone of the strategy will be a high quality passenger transport network of bus, guided bus and rail services, fed and



complemented by comprehensive pedestrian and cycle networks. Highways capacity enhancements will ensure that traffic can move efficiently in appropriate locations without interfering with passenger transport corridors.

- 3.34 The TSCSC identifies the Saffron Walden to Cambridge corridor, along with the M11 as the main entry point into the county from Essex via the A1301 and also via the Cambridge-London Liverpool Street railway line. The TSCSC states:

*"As with many of the market towns that surround Cambridge, although Saffron Walden lies in Essex, it looks to the city for much of its employment, services, healthcare and retail. The corridor is also close to the cluster of biotech sites to the south of the city. The Genome Campus sits on the corridor and there are strong links to the Babraham Research Campus and Granta Park. The main passenger transport focus for the corridor is the railway line, which has stations at Shelford, Whittlesford, Great Chesterford and Audley End".*

- 3.35 The SWOT analysis summary for the Saffron Walden to Cambridge corridor from the TSCSC is reproduced as follows:

Strengths:

- Existing railway line along corridor with regular services between Cambridge and London Liverpool Street
- Connections to Stansted Airport
- Four village stations
- Park & Ride site at Trumpington
- Existing off-road cycle route between Addenbrooke's and Shelford

Opportunities:

- Planned railway industry increases to service frequency along route
- Potential to link to north of Cambridge once CSPP built
- Potential connections between the knowledge-based campuses in this area of the district
- Improve the stations as interchanges

Weaknesses:

- Congestion on the A1301 around the interchange with A505 caused by high volumes of traffic along A505
- Knock-on effects of rat-running through neighbouring villages

Threats:

- Increasing congestion along A1301 and A505

- 3.36 Transport interventions on the Saffron Walden to Cambridge corridor focus on:

*"making the existing railway the first mode of choice, and improving upon the existing service provided by the railway line. As with other corridors, the overarching principle will be to intercept as many trips as far out of Cambridge as possible. The role of the railway will be strengthened through improvements to services, especially to Stansted Airport and also to the village stations, whose roles will become more important as interchange points between the railway and other modes of transport servicing the more rural areas.*





*Interchange facilities will be provided at Shelford and Whittlesford Parkway stations, linking villages into the HQPT corridor through a network of cycle and pedestrian links, which will also connect the large employment sites in Sawston and the Genome Campus to those further afield at Granta Park and Babraham Research Campus. Networks around the catchment area for Sawston Village College will also be created."*

## Greater Cambridge City Deal

- 3.37 The Greater Cambridge City Deal is an agreement set up between a partnership of local organisations and Central Government, to help secure future economic growth and quality of life in the Greater Cambridge city region.
- 3.38 The projects to be delivered as part of tranche 1 of the City Deal, support the Transport Strategy for Cambridge and South Cambridgeshire (TSCSC). This in turn supports planned housing and employment growth outlined in the Local Plans.
- 3.39 The agreement set up with Central Government will provide up to £500 million worth of funding over the next 15 years with an initial £100 million investment secured over the five years to 2020 to progress the first tranche of City Deal projects designed to:
- Bring vital improvements to key routes into the city.
  - Connect existing and new residential and employment areas with high quality public transport networks, including new orbital bus routes around Cambridge.
  - Provide more sustainable ways for people to travel between their homes and places of work, through a comprehensive network of pedestrian and cycle routes.
- 3.40 The tranche 1 City Deal projects have prioritised schemes that can be delivered quickly and provide immediate benefits to residents and commuters in Greater Cambridge. They also complement other schemes underway to improve major road and rail links across the wider Cambridgeshire region.
- 3.41 One of the tranche 1 projects, the 'A1307, Three Campuses to Cambridge' corridor is examining the A1307 corridor between Haverhill and Cambridge. This will link the three major employment sites of Granta Park, Babraham Research Campus and the Cambridge Biomedical Campus with Cambridge. Possible options are being investigated including park and ride, segregated bus links, segregated walking and cycling routes and bus priority measures. Consideration was also given to re-use of a disused railway on the corridor. This is not being considered for future rail use however, parts of the old route could be used for buses. The scheme is not considering dualling of the A1307.
- 3.42 Cambridge Science Park Station - a new rail station is planned for the Chesterton sidings area of Cambridge. This will provide rail access to the northern business and research parks of the City, especially for those travelling from South Cambridgeshire and Ely. New bus and cycling links will also be provided to maximise the potential to reduce car use.

## Hertfordshire Local Transport Plan

- 3.43 The vision of the third Local Transport Plan (LTP3) for Hertfordshire is:

*"To provide a safe, efficient and resilient transport system that serves the needs of business and residents across Hertfordshire and minimises its impact on the environment."*



3.44 The LTP3 states that the Council will achieve this by:

*"Making best use of the existing network and introducing targeted schemes where improvements are required so as to deliver a reliable and readily usable transport network to benefit local business, encourage further economic growth and allow access for all to everyday facilities.*

*Promoting and supporting sustainable travel to reduce growth in car traffic and contribute to improved health and quality of life for residents with a positive impact on the environment and on the wider challenge of reducing transport's contribution to climate change."*

3.45 The five goals of the LTP3 to support the vision are:

- Support economic development and planned dwelling growth.
- Improve transport opportunities for all and achieve behavioural change in mode choice.
- Enhance quality of life, health and the natural, built and historic environment for all Hertfordshire residents.
- Improve the safety and security of residents and other road users.
- Reduce transport's contribution to greenhouse gas emissions and improve its resilience.

3.46 To help achieve these goals the plan places a high priority on making better use of existing transport networks. A key element of the plan is 'intelligent transport systems'. Measures such as optimising traffic signals and providing real-time information to help make the best use of our roads.

3.47 This will be supported through a co-ordinated programme of travel planning with the development of travel plans for businesses, schools, railway stations and for individuals. Above all, the aim is to make everyone aware of all the travel options available and the consequences of the choice that they make.

## Strategic Transport Studies/Schemes

### **A120(T) between Braintree and A12(T)**

3.48 Essex County Council is leading on a feasibility study to deliver options for improving the A120(T) between Braintree and the A12(T) to the east. The study will identify potential improvement options with a view to identifying a preferred improvement scheme for inclusion in the next Government Road Investment Strategy (RIS2) which will run from 2020 to 2025. As such any improvements will be delivered towards the end of the Local Plan period.

### **Oxford to Cambridge Expressway Study**

3.49 This strategic study examines options for improving connectivity between towns and cities in the 'Brain Belt' between Oxford and Cambridge to help facilitate economic growth. The study focuses on improving road connectivity and has recently been granted Government funding to progress towards identifying a detailed scheme for inclusion in RIS2. As such any implications for transport conditions within Uttlesford are currently unknown and wouldn't materialise until towards the end of the Local Plan period.



### **East-West Rail Link**

- 3.50 East West Rail is a major project to establish a strategic railway connecting East Anglia with Central, Southern and Western England. The proposed route is split into three sections and extends from Oxford at its eastern end, through Bedford to Cambridge on its central section and on to Norwich, Felixtowe and Ipswich at its eastern end. The route will make use of existing routes as well as providing new sections of rail line to fill gaps. The scheme has committed Government funding and the section from Oxford through Bicester Village to the Chiltern Mainline is now operational. Completion of the western section between Oxford and Bedford is expected by 2024. Any potential implications for rail transport conditions within Uttlesford are currently unknown and wouldn't materialise until towards the end of the Local Plan period.

## **Strategic Factors that could Influence Options for Local Plan Growth**

### **Economic Factors**

#### **Brexit**

- 3.51 There is no clear evidence of the effects that Brexit will have on the National or local economy and what this may mean for transport conditions within Uttlesford. The implications of Brexit can therefore not be planned for.

### **London Stansted Cambridge Corridor Growth Commission**

- 3.52 The principal objective of the London Stansted Cambridge Corridor Growth Commission is to drive economic development in the London-Stansted-Cambridge corridor. The consortium brings together business and the public sector to promote investment and growth in the area. In March 2016 the commission found that the corridor:

- is an international asset with rapid rates of growth/competes globally for investment
- needs quality of place/infrastructure to attract talent, investment and entrepreneurs
- aspires to regional transport structures/integrated planning to deal with congestion

- 3.53 The London-Stansted-Cambridge corridor stretches from the Royal Docks in the south, through the communities and green spaces of the Lee Valley and North London, to parts of Hertfordshire and Essex and onwards toward Cambridge and Peterborough. The corridor hosts Stansted Airport which connects to 150 international destinations. It is directly connected to central London and the rest of the UK by major transport networks such as the M25, M11, A14 and the West Anglia rail line.

- 3.54 Transport connectivity is identified as key to achieving the economic growth potential of the corridor and the commission has identified several priority transport infrastructure schemes. Those directly relevant to Uttlesford are; four tracking of the West Anglia Mainline and the delivery of Crossrail 2 which together would provide improved rail connections to London but these major rail infrastructure projects are unlikely to be delivered within the Local Plan period. The commission also identified the provision of the new Junction 7a onto the M11 north of Harlow (currently being promoted by Highways England and Essex County Council) as being essential to help improve road connections to Harlow.

### **The A120 Haven Gateway Growth Corridor**

- 3.55 The Haven Gateway Growth Corridor includes the districts of Braintree, Colchester and Tendring linking Harwich International Port in the East to Stansted Airport and the M11 in the West via the A120. It is one of the key international gateways to the UK; home to Harwich International Port,



one of the UK's leading multi-purpose freight and passenger ports, and supporting the neighbouring port of Felixstowe.

- 3.56 Significant growth in housing and employment is planned along the corridor and the South East LEP and the Haven Gateway Partnership (a public/private partnership promoting the economic sub-region) are promoting significant investment in transport infrastructure to help facilitate this growth. A major element of this will be seeking improvements to the A120(T) between Stansted and Harwich to address current traffic capacity issues and to deliver additional capacity to accommodate growth. These issues are currently being investigated by ECC as part of the A120(T) feasibility study mentioned earlier.

### **Improvements to the Strategic Road Network (SRN)**

- 3.57 Discussions with Highways England have identified:

- Plans to introduce 'Smart Motorway' measures on the M11 through the District to improve incident management – will not provide any additional traffic capacity directly, but may help to improve capacity indirectly through improved incident management.
- Improvements to M11J8 in the short-medium term – scheme being promoted by Highways England and ECC.
- Need for longer-term improvements identified at M11J8 identified for investigation and delivery as part of subsequent road investment strategies (RIS).
- Provision of new Junction 7a onto the M11 at Harlow
- Study to identify options for improving the A120(T) between Braintree and the A12(T) – mentioned earlier
- A12(T) Chelmsford to A120(T) widening scheme – options are currently being explored for proposals to widen this route to increase capacity and improve safety and journey times. Work is expected to commence in RIS2 towards the end of the Local Plan period.
- Continuing policy focus on the promotion of sustainable transport to reduce travel demand for the SRN.

- 3.58 The implications of the short-medium term improvements at M11J8 have been taken into account however the potential wider benefits of the other schemes listed above are currently unknown and will be the subject of studies and modelling undertaken by Highways England as these schemes are progressed. The timescales for delivery of these other schemes also means any implications are unlikely to materialise during the Local Plan period.

### **Summary**

- 3.59 Therefore, while it is accepted that UDC is part of a dynamic region and more economic growth potentially increases the scope for transport improvements none would provide major changes in the level of transport infrastructure over the Local Plan period, but may generate additional demand for existing transport networks. Therefore, the aspirations of these economic corridors has been noted however, it is beyond the scope of this appraisal to identify their transport impacts and this will need to be the subject of more strategic studies and modelling.



## Strategic Factors that could Influence Options for Local Plan Growth

### North/South Transport Issues

#### Context

- 3.60 Uttlesford is a large rural district with different influences between the north and the south of the district due to major economic attractors and the existing transport network available to serve them.

#### North of the District

- 3.61 Saffron Walden is the only town in the north of the district. It is the district's largest settlement with a town centre and good range of services serving a wide area especially the north of the district. Cambridge is the nearest large centre with smaller centres at Haverhill and Royston. The north of the district is relatively distant from other town centres with Saffron Walden dominating the areas shopping patterns for convenience and lower order goods. Other centres have much less influence with Haverhill the most significant while Cambridge retail outlets have little influence despite their scale. However Cambridge has considerable influence over the areas comparison shopping due to the scale and quality of its retail offer. Saffron Walden provides local employment while the Great Chesterford Business Park provides a strategic employment location. This all falls within the M11 corridor functional economic market area. However residents mostly commute outside the area to larger centres especially south to Hertfordshire and London although Cambridge is also significant.
- 3.62 The M11 transport corridor includes the Motorway that runs along the western edge of the area and the B1383 that runs parallel to the M11 and the West Anglia Mainline railway with stations in the northern area of the district at Great Chesterford, Audley End for Saffron Walden (at Wendens Ambo), Newport.
- 3.63 Cycling and Walking within the District is predominantly limited to Saffron Walden where 22% of journeys to work are by active mode, almost all walking. Outside of the town, use of active mode is greatly diminished with footways generally not provided beyond the town's built area. The larger villages in the area also contain footpaths albeit generally not beyond their built area. There are also sporadic often narrow elements of footpath e.g. Saffron Walden to Littlebury. Close to the edge of the district there is a dedicated walking/cycling pathway outside the district running north on the A1301 towards Cambridge.
- 3.64 The M11 runs along the western boundary of the District with access via J9a of the M11/Stump Cross for south bound traffic giving access to Stansted, Harlow, Herts and London. Stump Cross also provides access to the A11 Eastbound including Newmarket. However no northbound access exists at J9 with northbound traffic to the M11 relying on J10 via the A1301/A505. The B184 provides a local north-south spine for the area as well providing links to the SRN at J9a. However east-west links are generally poor with reliance on rural roads or those outside the area/district such as the A505 or A11.

#### South of the District

- 3.65 Great Dunmow is the only town in the south of the district. It is the second largest settlement in the district with a small town centre and narrower range of services serving just the south of the district with every-day goods and services. 13% of journeys for Great Dunmow to work by active mode compared to 22% in Saffron Walden. The South of the district is close to other larger town centres such as Bishop's Stortford, Harlow, Braintree, and Chelmsford that provide for a large element of convenience shopping and nearly all comparison shopping and higher level services.



Great Dunmow provides an element of local employment and although Stansted Airport is the largest single site employer in the region most residents commute outside the area to larger employment centres. Most of this commute is southwards including Bishops Stortford, Harlow, Braintree, Chelmsford and London.

- 3.66 The southern area of the district contains the M11 corridor as above with the West Anglia Mainline railway with stations at Elsenham, Stansted Mountfitchet and Stansted airport. East-west road connectivity is provided by the A120(T), a dual carriageway trunk road, the B1256 and the Flich Way (off-road cycle/pedestrian route) which both run parallel to the A120(T). Stansted Airport is located on the A120(T) close to the M11 at Junction 8 and therefore has excellent connections to the SRN. The airport also has extensive public transport facilities.
- 3.67 Cycling and Walking is limited outside of Great Dunmow with walking its most prevalent active mode. The Flich Way runs parallel with the A120(T) linking to towns outside the district at Bishops Stortford and Braintree. Both of these towns have walking and cycling facilities that are accessible from within the district.
- 3.68 The area benefits from all-movements access to the M11 via J8. Stansted airport has direct access to the A120(T) via an all-movement junction. Two all-movement junctions onto the A120(T) serve Great Dunmow, with a further junction (east facing slip roads only) serving Blakes End.
- 3.69 The B184 provides a local north-south spine for the area as well as connecting to the SRN at Great Dunmow. The B183 provides a local link to Harlow to the south west via the A414.

### **Conclusions**

- 3.70 While the north of the district has slightly better access to rail facilities the south of the district has better connectivity to the M11 as all movements are available at M11 junction 8 whereas there is no northbound connection available onto the M11 at Junction 9/9a in the north of the district. Northbound traffic is therefore required to use the A1301 and A505 to access Junction 10 of the M11 at Duxford. These routes and M11J10 fall within South Cambridgeshire and are understood to experience queuing and delays in peak periods. The M11 J8 also experiences queuing and delays in peak periods as assessed in this study albeit not the result of forced journeys.
- 3.71 The south of the district also has better east-west connectivity than the north of the district, which is provided by the A120(T). In the north of the District east-west routes are limited to the A1307 which sits outside of the district within South Cambridgeshire and is understood to experience traffic congestion in peak periods, or lower category rural roads within the district.



#### **4 Review the Local Plan (2014 Submission) transport policies to maximise accessibility by sustainable transport and provide a commentary**

4.1 Commentary concerning transport and movement policies set out within the withdrawn 2014 draft Local Plan emphasised the need to promote realistic alternatives to car travel by promoting development in locations where the need to travel is minimised and/or where viable sustainable alternative modes are available but emphasised that this should be balanced against the need to recognise the important role that the car has in meeting ongoing transport and accessibility needs in a predominantly rural area.

4.2 Policy reference SP12 identified the need to co-ordinate development and transport planning in order to reduce the need to travel by car, increase public transport use, cycling and walking and improve accessibility and safety in the district while accepting the rural nature of the district. Policy SP12 highlighted a need to:

- ensure suitable capacity of the main road network and access to it to accommodate development safely and without causing congestion;
- manage development to improve road safety and provide for the needs of all users;
- ensure new development be located where it can be linked to services and facilities by a range of transport options including the private car, public transport, safe and well designed footpaths and cycle networks; and,
- require preparation of Travel Plans and Transport Assessments/Statements covering specific development proposals to demonstrate how reduced car travel will be achieved.

4.3 The overarching statement and content of policy SP12 is considered applicable to and consistent with the newly emerging transport policy direction for Uttlesford District however, it is recommended that the following minor amendments to its emphasis be incorporated:

- the stated objectives should seek to ensure the overall need to travel (particularly by car) to meet day-to-day service requirements is minimised;
- the stated objectives should specifically emphasise the need to locate development proposals in close proximity to existing services and make use of sustainable forms of travel (walking, cycling and public transport) to fulfil day-to-day travel needs as a first requirement; and,
- the need to provide appropriate and safe networks to allow for increasingly independent travel by vulnerable road users (particularly children) should be emphasised both to allow such individuals to provide for their own travel needs and de-couple their travel from other family members.

#### **5 Review the feedback received on sustainable travel issues and produce a concise summary**

5.1 Comments received concerning the withdrawn 2014 draft Local Plan and the Issues and Options consultation undertaken in 2015 have been reviewed and are generally considered supportive of the thrust of the transport strategy in promoting use of sustainable modes and moving away from reliance upon the car to fulfil daily travel requirements.

5.2 A number of responses received, including those of both Highways England and Braintree District Council specifically highlighted a desire to promote modal shift away from private car use and this was generally supported in comments received from Essex County Council that stressed the need to promote and support development of sustainable travel networks.

5.3 However a number of comments received indicated dissatisfaction with the emphasis placed upon sustainable transport measures proposed and the sustainability credentials of some of the sites being promoted. Heritage England expressed concern that potential development sites around Saffron Walden were predominantly located to the east of the town away from the major road and



rail transport corridors that are situated to the west of the town, whilst groups including We Are Residents, Sustainable Uttlesford and a number of parish councils highlighted the need to retain and improve bus and rail services whilst being realistic about the continuing and important role of private forms of travel, particularly in more rural areas of the district.

- 5.4 South Cambridgeshire District Council's response had a related but slightly different and more specific emphasis, stressing their desire to ensure mitigation of additional travel demand into Cambridge brought about as a result of development. Their comments stress the need for the plan to carefully consider the appropriateness of any new settlement close to the boundary with southern Cambridgeshire, particularly along the A1301 and A1307 road corridors.
- 5.5 Further responses indicate a qualified support for the overarching sustainability objectives of the strategy and raised specific comments in relation to the potential of development to act as a catalyst for delivery of improvements to sustainable infrastructure.
- 5.6 A number of comments were raised expressing concerns that development could (and should not) have a detrimental impact on the district's natural assets. The Essex Bridleway Association expressed a desire to see the creation of non-motorised, multi-user paths for use by pedestrians, cyclists and horse riders that would be linked to and serve development sites.
- 5.7 Similarly the Friends of Flitch Way sought a commitment to safeguard integrity of the existing Flitch Way route through resisting encroachment by new development and overuse as a result of increased demand. Natural England highlighted potential issues associated with air pollution detrimentally impacting on the Hatfield Forest.

## **6 Identify the constraints for sustainable travel within Uttlesford District**

- 6.1 Uttlesford is a large rural district in North West Essex covering approximately 250 square miles. It is primarily a rural area interspersed with small towns and villages. The district has a total population of 79,443 (2011 Census). The two main settlements, Saffron Walden (pop 15,500) and Great Dunmow (pop 8,830) are market towns which although still quite small by most standards provide a range of services to a wide surrounding area. This is especially true of Saffron Walden. There are a number of larger villages; Elsenham (pop. 3,680), Great Chesterford (pop. 1,700), Hatfield Heath (pop. 1,930), Newport (pop. 3,440), Stansted Mountfitchet (pop. 6,460), Takeley (pop. 4,710) and Thaxted (pop. 3,510) (2011 Census - Ward Data). These villages provide a range of services to the surrounding rural areas.
- 6.2 Uttlesford is a rural district where household car ownership is recognised as being higher than the national average with the average number of vehicles per household being 1.2 nationally, 1.4 in Essex and 1.7 in Uttlesford. This reflects the rural nature of the majority of Uttlesford and the relatively sparse public transport provision. The main report analyses baseline data for sustainable transport modes.
- 6.3 Given the relatively limited scale of existing settlements within the district, the existing population is heavily reliant upon travel to a number of much larger settlements in adjacent and nearby authority areas to meet employment and some service requirements. This is particularly the case where access to higher order services is concerned. The district's towns do however provide a local hospital, dentists, schools, local administration and day to day retail needs, especially for food and lower order non-food goods for much of the district. They also provide elements of local employment. As a result the baseline data for active modes for travel to work shows considerable variation with 22% in Saffron Walden falling to 5% in the villages.
- 6.4 There is one major employment centre in the south of the district at Stansted Airport and Chesterford Park is a key employment area in the north. Other employment is focused on smaller industrial estates or premises mostly in Saffron Walden and Great Dunmow. On average residents





travel further to work than is the norm and residents' qualifications and earnings are generally higher than average. According to the 2011 census, 76% of Uttlesford residents commute to work by car compared to an average of only 70% within Essex as a whole. There is a link between out commuting and associated higher incomes with residents commuting to work outside of the district, particularly into London.

- 6.5 Because of the rural nature of the district car ownership levels are high and public transport is limited and challenging to operate on a commercially viable basis. Existing passenger rail services along the north–south West Anglia Main Line railway provide regular and direct connections between Cambridge and London Liverpool Street calling at destinations including Bishop’s Stortford and Harlow. Great Chesterford is currently only served by the slow services that call at every station on the route. Separate branch line services operate between Stansted Airport and London Liverpool Street.
- 6.6 However, existing constraints on rail service capacity present challenges in accommodating further demand associated with future development. Hence, while a new rail stop at Cambridge North while giving better access to employment via rail would not by itself increase capacity of the rail line. There may also be potential to utilise park and ride towards Cambridge although it is understood these facilities are at/near capacity. Accessibility to rail services from the central and eastern areas of the district is also relatively challenging. For these areas the closest rail station is located at Braintree that lies adjacent to the district and existing services provide direct connections to the south only (calling at Chelmsford and London Liverpool Street) although both Notley and Witham stations are relatively accessible to this area providing access to high frequency services to Chelmsford, London, and Colchester. The Anglia Route Study (2016) supports improving the Braintree Branch line to provide a new passing loop at Cressing to allow more services to operate although it should be noted that this work is not currently planned within the current Control Period 6 (2019 to 2024) investment programme. There is however potential to bring the improvement forward.

## **7 Identify the opportunities for sustainable travel within Uttlesford District**

- 7.1 Areas of the district offering the most potential opportunity for sustainable travel principally lie along two main transport corridors: North–south running adjacent to the M11 motorway and the West Anglia Main Line railway along the western edge of the district; and east–west running along the A120(T) corridor towards the south of the district. This is both because of the quality of existing transportation links provided by these corridors and because the largest settlements (and consequently the number of existing employment opportunities and key services) are also concentrated in these areas.
- 7.2 The two largest settlements in the district (Saffron Walden in the north and Great Dunmow towards the south) are located on the M11 and A120(T) corridors respectively. Existing passenger rail services operating on the West Anglia Main Line are accessible from a number of stations including Great Chesterford, Audley End (for Saffron Walden), Newport, Elsenham, Stansted Mountfitchet and Stansted Airport.
- 7.3 Existing levels of rail services are approximately four trains to/from London per hour in the peaks calling at Audley End and approximately four trains per hour to/from Stansted Airport.
- 7.4 The area around Stansted Airport also benefits from bus services that operate extensive schedules and bus frequencies to serve the airport and associated employment zones.
- 7.5 Outside of the district there are potential transport synergies on the A120(T) corridor. The proposed development located to the west of Braintree within Braintree District offers the potential for a frequent regular bus service to be provided to / from Braintree railway station and / feeding an express service on the A120(T) corridor between Braintree and Stansted. A new settlement



situated to the west of Great Dunmow would also offer the potential for regular bus service connections to Bishops Stortford railway station within Hertfordshire, passing via Stansted Airport railway station feeding the express service.

- 7.6 The AoS at Great Chesterford is currently served by a single bus service (Citi 7) that runs an approximately hourly service between Saffron Walden and Cambridge. The potential exists to enhance the frequency of this service, or provide a new dedicated service between the AoS and Cambridge city centre. However, the long-term viability of doing so would be dependent upon achieving sufficient patronage to make new services financially self-sustaining.

## **8 Identify the most sustainable locations within the district based on the high level accessibility assessment currently being produced by WYG. Provide commentary on the relative sustainability of these areas**

### **Introduction**

- 8.1 The majority of AoS are close to existing settlements and it is considered reasonable to assume that this offers some sustainable travel benefits through proximity to existing local services to meet day-to-day needs (i.e. shorter travel distances that may encourage walking and cycling).
- 8.2 However, travel to work represents a large proportion of peak period car trips on the highway network and, with the exception of morning trips to school (PM school trips are often outside of the peak), trips to local services are not typically focussed in the AM/PM peak periods. Proximity to local services therefore doesn't guarantee reduced traffic pressure on the highway network in the critical peak periods.
- 8.3 Additional demands on existing local services cannot be determined in detail at this stage. For example, education demand from a new development may exceed the capacity of a local school but it may not be feasible to expand the school. This may lead to greater journey distances to alternative schools with available capacity/scope for expansion, which may only be feasible by car. These types of detailed issues will require further consideration at the appropriate planning stage.

### **New Settlements**

- 8.4 NPPF encourages the provision of new settlements that follow the principles of Garden Cities as a way of delivering sustainability objectives:

*"The supply of new homes can sometimes be best achieved through planning for larger scale development, such as new settlements or extensions to existing villages and towns that follow the principles of Garden Cities. Working with the support of their communities, local planning authorities should consider whether such opportunities provide the best way of achieving sustainable development. In doing so, they should consider whether it is appropriate to establish Green Belt around or adjoining any such new development."*

- 8.5 Six potential new settlement locations are being considered; to the north-east of Great Chesterford, north-east of Elsenham, west of Great Dunmow, west of Braintree, Little Dunmow and north of Takeley.
- 8.6 On 25th August 2016 the Secretary of State for the Department of Communities and Local Government released appeal decisions for land at Great Dunmow (appeal by LS Easton Park Investments Ltd on land west of Great Dunmow, reference UTT/13/1043/OP) and land at Elsenham (appeal by Fairfield Elsenham Ltd on land north east of Elsenham, reference UTT/13/0808/OP). Both appeals were dismissed by the Secretary of State.



- 8.7 The appeal site at Elsenham corresponded to the AoS for a new settlement north-east of Elsenham. Following the Secretary of State's decision this AoS has not been considered further in this appraisal. The appeal site at Great Dunmow and the AoS to the west of Great Dunmow are separate entities and not inter-reliant. The AoS to the west of Great Dunmow therefore remains and is considered further in this appraisal.
- 8.8 In terms of accessibility to local services the AoS to the west of Great Dunmow, Little Dunmow and Takeley are considered to be best placed to benefit from their proximity to the settlements of Great Dunmow and Takeley. Of these the AOS to the west of Great Dunmow is considered to be most favourable as the range of local services available at Takeley and Little Dunmow are relatively limited and the AoS at Little Dunmow is situated south of the A120(T) and is therefore more geographically remote from Great Dunmow.
- 8.9 The AoS at Great Chesterford and west of Braintree are more geographically remote from the closest adjacent settlements in terms of walking and cycling distances although the AoS west of Braintree benefits from the Flitch Way that gives access into the centre of Braintree including the town's railway station that, as noted earlier, has potential for service improvements. The AoS west of Great Dunmow, west of Braintree, Little Dunmow and Takeley are also remote from the West Anglia Main Line and the nearest railway stations on this line. Braintree Council have proposed a large new settlement West of the town that straddles the border with Uttlesford. This would offer the potential for much improved bus services into Braintree Town from this location.
- 8.10 For new settlements the potential scale of development is likely to require and support the provision of new local services/amenities such as education, primary healthcare, local retail, community and leisure facilities. New settlements therefore have the potential to improve accessibility to these facilities without reliance on existing provision in adjacent settlements and it is considered reasonable to assume that new settlements would also be capable of addressing day-to-day local service needs internally. However, it is considered unlikely that new settlements will be capable of providing all services to achieve 'self-containment' by the end of the plan period and are likely to remain reliant on nearby settlements to some extent in the short to medium term.
- 8.11 Each of the new settlement AoS therefore offers the potential to meet local travel needs using sustainable transport (walking and cycling principally) due to a combination of the short travel distances required to access services that would be provided within the settlement and the opportunity to plan and provide sustainable transport networks as part of the masterplanning of each settlement.
- 8.12 However, this is also dependent upon the financial viability of new settlements being able to deliver the required new infrastructure and services required to meet day-to-day requirements within the settlement (i.e. smaller settlements may not have the required 'critical mass' to achieve this).

### **Accessibility to Employment**

- 8.13 Some local employment opportunities may be created within new settlements however, it is expected that the majority of new employment demand will be met within local/larger employment centres (e.g. Stansted Airport) and adjacent cities. This will require longer distance trips that are more likely to be made by car.
- 8.14 Regarding accessibility to key employment centres by sustainable transport the following factors are considered relevant.
- East/west sustainable transport links across the district and between the district and key settlements and employment opportunities to the east and south-east including Braintree,



Chelmsford and Colchester are currently less prevalent than those to the west and south-west of the district.

- The central and eastern areas of the district and key employment opportunities towards the west and south-west (including Stansted Airport, Bishop's Stortford, Harlow and London) are not well connected by sustainable transport and will likely remain so given the relatively limited resources available to deliver improvements and the expectation that car ownership/usage rates will remain high.

8.15 In terms of accessibility to employment at Stansted Airport the new settlement AoS at Takeley, west of Great Dunmow and Little Dunmow are geographically closest to the airport which may enable some commuting by cycle (e.g. using the Flitch Way), or alternatively it may be possible to extend some of the existing bus routes that serve the airport to also serve these AoS. West of Braintree includes utilising the Flitch Way directly to Braintree and Braintree railway station for cycling and walking. There are also proposals for an express bus service between Braintree and Stansted as part of the West of Braintree new settlement.

8.16 The West Anglia Main Line provides some scope to accommodate longer distance employment trips, subject to service capacity/frequency constraints. As part of the recent re-awarding of the Anglian rail franchise to Abellio improvements are planned, principally to increase capacity of existing services through the introduction of new rolling stock and longer trains. However, in line with the Inspector's comments on the withdrawn draft Local Plan, even if suitable passenger services were available, it is likely that the realistic number of people that would choose to commute to work by train (or indeed other forms of public transport) would likely remain low given the high rates of car ownership across the district, likely limitations on access to the passenger rail network in many instances and potentially the complexity of routine daily journeys undertaken by the household (e.g. the need to take children to school).

8.17 In relation to the point above, it is considered important to ensure that local travel networks are safe for use by children and other vulnerable users (e.g. the elderly and mobility impaired) in order to allow for de-coupling of travel requirements (e.g. providing walking, cycling and public transport networks that give the option for children to travel to school independently of their parents and without using the car). This would help to reduce car journeys and encourage the use of sustainable travel alternatives.

### **Accessibility to Public Transport**

8.18 The availability of public transport services is greatest along the West Anglia Main Line in the west of the district where there are good quality passenger rail services operating at relatively high frequencies and around Stansted Airport in the south west of the district where there is an extensive (but relatively localised) network of bus services focussed around the airport and adjacent employment zones.

8.19 Existing rail services connect key settlements within the district including Great Chesterford, Saffron Walden (via Audley End), Elsenham and Stansted Mountfitchet to key employment destinations including Stansted Airport, Cambridge, Bishops Stortford, Harlow and London.

8.20 Analysis of 2011 Census data indicates that over 50% of the employment trips generated by existing residents within the district are destined for a combination of the above listed destinations. It is therefore considered that (subject to service capacity/frequency) AoS in close proximity to existing rail services would offer some scope to promote longer distance trips by rail.



### **Access to the Strategic Road Network (SRN)**

- 8.21 With the exception of potential sites in the vicinity of Thaxted village all AoS are close to the strategic road network (SRN) that runs through the district (i.e. the north-south M11 motorway corridor in the west of the district, the A11(T) to the north, and the east-west A120(T) corridor to the south).
- 8.22 For the AoS at Great Chesterford the absence of northbound access onto the M11 combined with congestion on the local road network linking the site to M11J10 is a potential constraint to development. ECC has suggested that for trips to/from the north the preferred route would be via the A11 using the existing junctions at Stump Cross and Granta Park. This would require use of the section of the old A11 (that runs parallel to the current A11 immediately to its south) as the junction between the current A11 and the A505 at Granta Park has limited connectivity. However, the feasibility of achieving this would need to be established as the old A11 terminates short of Great Chesterford AoS site and land ownership issues may therefore preclude its provision. In addition, use of this route for trips to/from the M11 north would still impact on the congested A505 corridor and it's not clear how its use could be enforced in practice when a shorter, more convenient route is available via the A1301.
- 8.23 Significant new/improved highway infrastructure is therefore likely to be required possibly including provision of new north facing slips onto the M11 at J9, improvements to the A505/A1301 and possibly the A11/A1307 roundabouts together with a new highway link to the old A11 to the north, potentially across 'third-party' land. The feasibility of providing these improvements combined with the cost and timescale for delivery are therefore potential barriers to development in this location.
- 8.24 Methods to help address these potential constraints include promotion of sustainable travel to reduce vehicular trip generation together with a phasing strategy to coincide development with the delivery of off-site highway infrastructure improvements (e.g. possible future Highways England improvements to M11J9). However, such an approach may limit the volume of housing that could be delivered in this location within the Plan period.
- 8.25 Similarly, for the AoS at Takeley and Little Dunmow ECC has confirmed that new all-movement junctions are likely to be required onto the A120(T) to avoid detrimental traffic impacts on the local highway network. The feasibility of achieving new junctions at these locations combined with the considerable cost and timescale for delivery are therefore likely to represent significant barriers to new settlements being delivered at both of these locations within the Plan period.
- 8.26 Access onto the A120(T) at the west of Braintree AoS is also limited as the existing junction at Blake End only has east facing slip roads. ECC has indicated that a significant new settlement in this location is likely to require the junction to be improved to provide for all movements.
- 8.27 The feasibility of improving this junction combined with the considerable cost and timescale for delivery is therefore likely to represent significant barrier to a new settlement being delivered at this location within the Plan period and is likely to make any development at this AoS within Uttlesford dependent upon a new settlement within Braintree coming forward.
- 8.28 In terms of existing access to the SRN the AoS to the west of Great Dunmow is considered to be most favourable as this location benefits from an existing all-movement grade-separated junction onto the A120(T) from which either direct access or access via the western bypass of the town could be taken. Although some junction improvements are likely to be required to provide additional traffic capacity it is considered that the scale of highway improvements required are likely to be less significant resulting in a greater likelihood of delivery within the Plan period.

## Area of Search Review

8.29 A review of the AoS listed in **Table 1** has been undertaken and further commentary can be found in **Appendix B**.

## High Level Accessibility Appraisal

8.30 A high level accessibility appraisal has been undertaken of the five new settlement AoS. A summary of the results are presented in **Table 2** below. Details of the assessment criteria used can be found in **Appendix C**. The findings are discussed in the subsequent paragraphs.

**Table 2 – New Settlements – Summary of Site Accessibility**

|   | Great Dunmow    | West of Braintree | Great Chesterford | Takeley         | Little Dunmow   |
|---|-----------------|-------------------|-------------------|-----------------|-----------------|
| Internal service/amenity provision        | 5               | 5                 | 5                 | 5               | 5               |
| Access to existing rail services          | 3               | 3                 | 4                 | 4               | 2               |
| Access to existing bus services           | 4               | 4                 | 4                 | 4               | 4               |
| Quality of existing bus services          | 5               | 4                 | 2                 | 5               | 4               |
| Ease of implementing new bus services     | 5               | 5                 | 5                 | 5               | 5               |
| Pedestrian/cycle accessibility            | 5               | 4                 | 5                 | 5               | 2               |
| Potential pedestrian/cycle accessibility  | 5               | 5                 | 5                 | 5               | 2               |
| Existing access to strategic road network | 5               | 4                 | 4                 | 1               | 1               |
| Total Score                               | 36              | 34                | 34                | 34              | 25              |
| Rank                                      | 1 <sup>st</sup> | 2 <sup>nd</sup>   | 2 <sup>nd</sup>   | 2 <sup>nd</sup> | 3 <sup>rd</sup> |

## Key Conclusions of the Accessibility Assessment and SWOT Appraisal

8.31 The accessibility assessment examines key criteria only and is therefore a relatively simplistic assessment of the existing characteristics of the AoS for new settlements. The assessment also includes no detailed interpretation of how feasible it would be for the accessibility of each AoS to be enhanced through the delivery of new/improved services and infrastructure. Therefore, whilst the scoring matrix presented in **Table 2** provides a guide to the relative overall accessibility of each AoS the results need to be taken in this context.

8.32 The assessment highlights the following general points:

- In general terms each AoS scores well against a number of the accessibility scoring categories, with most sites achieving a score of 4 or 5 for each of the categories assessed.
- The assessment highlights the distance of the Great Dunmow, Little Dunmow and land west of Braintree AoS from existing rail stations.
- The assessment highlights the relatively poor bus services serving the Great Chesterford site with a single bus service (Citi 7) currently providing hourly services between Saffron Walden and Cambridge, with a journey time of approx' 1 hr 15 minutes from the AoS to Cambridge city centre.
- Providing pedestrian and cycle connections between the AoS to the west of Braintree may initially be more difficult to achieve than for alternative sites, due to the distance involved and the lack of existing infrastructure to 'piggy back' onto. However this needs to be seen



in the context of Braintree District's allocation of land on the border between Braintree and Uttlesford as the location of a co-terminus new settlement. The Braintree Local Plan Options Assessment: Transport Planning report prepared by Ringway Jacobs and published in February 2016 noted that sites in the region of Rayne and Marks Tey have a significant potential to improve their sustainable accessibility...in the following ways:

- Potential to redirect bus service(s) into the site as well as introducing additional bus stops within walking distance; and,
- Potential to have its own supply of schools, GP surgeries and even a town centre. As a result there is also a potential to encourage walking and cycling around the site, as long as adequate links are introduced.
- The AoS at Takeley and Little Dunmow score less favourably in terms of access to the SRN on the basis that without the provision of new junctions onto the A120(T) traffic would need to pass through existing built-up areas on the B1256 in order to gain access via existing junctions.
- The AoS at Little Dunmow is geographically more remote from the nearest railway station and settlements that offer services to meet day-to-day needs and this is reflected in the scoring.

## **9 Identify draft sustainable transport policies for the Local Plan**

- 9.1 The new settlement AoS at Great Chesterford and West of Great Dunmow are considered similar in terms of their overall accessibility by sustainable transport. The Great Chesterford site scores well as it is close to the existing settlement to allow walking/cycling to existing services. It also has access to existing bus and rail based public transport services and is close to the SRN.
- 9.2 In comparison the new settlement AoS west of Great Dunmow is more distant from the rail network however; it is better located in relation to existing bus services. In both cases walking and cycling access to local services and access to the SRN is considered to be comparable.
- 9.3 The AoS to the west of Braintree has reasonable access to existing and potential bus services and is close to the SRN. However, given the smaller size of this site it has lower potential to deliver improved bus services on its own. Currently the site is relatively distant from existing services in Great Dunmow and Braintree. However, with the promotion of sites adjacent to the UDC boundary within Braintree District as the location of a co-terminus settlement, there is a significant opportunity to deliver major accessibility improvements that would potentially benefit this area of Uttlesford District. However, this would rely on development coming forward in Braintree District.
- 9.4 The AoS at Little Dunmow is more remote from the nearest railway station and settlements that offer services to meet day-to-day needs making it less favourable in terms of promoting sustainable travel behaviour. It is also likely to require a new junction onto the A120(T) and without this traffic would have to pass through existing built-up areas in order to gain access onto the A120(T).
- 9.5 The AoS at Takeley is close to existing services in Little Canfield and Takeley and close to the railway station at Stansted Airport. However, it is also likely to require a new junction onto the A120(T) and without this traffic would have to pass through existing built-up areas in order to gain access onto the A120(T).



## 10 An Emerging Strategy for Development

- 10.1 In developing a strategy to accommodate development it is important to consider the most sustainable pattern of development that minimises the need to travel in terms of:
- Existing patterns of development and infrastructure
  - Proximity and journey times to key services
  - Proximity and journey times to employment opportunities
- 10.2 On balance, the AoS on the A120(T) corridor are generally considered preferable as the A120(T) corridor offers nearby employment at Stansted Airport (the largest employer in the district) and within the existing settlements along the corridor including; Braintree, Great Dunmow and Bishop's Stortford.
- 10.3 Of these the AoS at Takeley and Little Dunmow are considered the least favourable options due to the likelihood of new all-movement grade-separated junctions being required onto the A120(T) to serve the sites to avoid detrimental traffic impacts on local roads. The feasibility of providing new junctions is a potential constraint to housing delivery at these locations within the Plan period.
- 10.4 Similarly at the West of Braintree AoS significant improvements are likely to be required to the existing junction onto the A120(T) at Blake End to provide west facing slip roads. The feasibility of improving this junction combined with the considerable cost and timescale for delivery is therefore likely to represent a significant barrier to a new settlement being delivered at this location within the Plan period and is likely to make any development at this AoS within Uttlesford dependent upon a new settlement within Braintree coming forward.
- 10.5 The AoS west of Great Dunmow is therefore considered most favourable as it benefits from an existing all-movement grade-separated junction onto the A120(T) from which either direct access or access via the western bypass of the town could be taken. Although some junction improvements are likely to be required to provide additional traffic capacity it is considered that the scale of highway improvements required are likely to be less significant than for the other AoS resulting in a greater likelihood of delivery within the Plan period.
- 10.6 Existing local service provision centred around Great Dunmow is also more comprehensive than in the vicinity of Great Chesterford and is supported by further amenities in Braintree and Bishops Stortford which are connected via the Fitch Way. The planned settlement on the boundary between Braintree and Uttlesford districts will also act as a catalyst for delivery of improvements to public transport serving the A120(T) corridor, for example express bus links to Stansted and Braintree.
- 10.7 The Great Chesterford AoS is comparable with Great Dunmow in terms of overall accessibility by sustainable transport. Comparing this AoS with the preferred A120(T) options one potential weakness is that South Cambridgeshire Council have no major residential development planned to the south of their district in the vicinity of the Great Chesterford AoS that might provide similar opportunities to help support residential development. There is however potential to utilise sustainable transport modes into Cambridge including utilising the A1301 cycleway and other sustainable travel infrastructure within South Cambridgeshire. Improving accessibility to rail stations on the West Anglia Mainline would also help to encourage greater rail use however, the benefits of this need to be taken in the context of forecast rail capacity shortfalls on peak period trains between London which would limit the scope to encourage significant rail use to/from the capital. However, there is understood to be spare capacity for trips to/from Cambridge.





- 10.8 Key employers that are closest to the Great Chesterford AoS (for example Addenbrooke's Hospital and Cambridge City) are more distant than those closest to Great Dunmow. Existing local service provision around Great Chesterford is also less comprehensive than in the vicinity of Great Dunmow where existing services include a secondary school, two food superstores (with planning permission for a third) a leisure centre, various retail and other services within the town centre. All of which are within potential walking and cycling distance of the AoS if appropriate connections are provided.
- 10.9 The AoS west of Great Dunmow is more remote from the nearest railway stations (at Stansted Airport and Braintree) than Great Chesterford which is served by a railway station. However, the benefits of this should take into account that not all peak period train services on the West Anglia Main Line stop at Great Chesterford (two trains per hour to London in the morning, compared to four trains per hour serving Stansted Airport) and the trains that do stop are the 'slow' trains that call at all stations. There are also forecast capacity shortfalls on peak period trains between London which would limit the scope to encourage significant rail use. Regards walking and cycling some potential exists to improve or utilise/provide new links to employment sites into Cambridge increasing modal share of non-car transport although the increase may be modest. The predominant mode of travel for longer distance trips to/from Great Chesterford is therefore likely to remain the private car.
- 10.10 For the benefits of proximity to adjacent settlements to be realised it will be important to ensure that new settlements prioritise walking and cycling as the principal forms of travel for undertaking local, day-to-day journeys and that appropriate connections are delivered to facilitate this. Walking and cycling infrastructure should also be safe for use by all users (e.g. children, the elderly, mobility impaired etc).
- 10.11 In the vicinity of the AoS west of Great Dunmow, there is already good quality walking and cycling infrastructure within the western residential suburbs, notably the Larch Way/Woodlands Walk that provides a good quality "quiet way" route broadly connecting Woodside Way through to the town centre via a combination of off-road paths and lightly trafficked streets.
- 10.12 The west of Great Dunmow AoS is also well located in relation to existing off-road cycle routes providing links to a number of key employment and service locations, particularly the Fitch Way that runs parallel to the B1256 Stortford Road/Dunmow Road south of the A120(T). Fitch Way provides a largely uninterrupted off-road cycle and pedestrian route to key employment areas including Stansted Airport and adjacent employment zones, Braintree and the planned co-terminus settlement. Potential measures that could be delivered to encourage use of these networks include:
- Improve accessibility for cyclists onto Fitch Way from the AoS via Smiths Green and/or Station Road via Little Dunmow (or appropriate alternatives).
  - Improve the condition of the Fitch Way itself.
  - Improve connections from the western end of Fitch Way to areas of existing and proposed employment around Stansted Airport.
  - Improve safe connections for cyclists across the M11 as part of works to upgrade M11 Junction 8 to improve accessibility to Bishop's Stortford.
- 10.13 Existing bus services operating along the B1256 past the west of Braintree AoS already provide a good level of service to Stansted Airport and Braintree and less frequent but direct services to Colchester and Chelmsford. Braintree District Council's local plan strategy includes for delivery of public transport improvements including an express bus service between Braintree and Stansted Airport via the proposed co-terminus settlement West of Braintree and via Great Dunmow. Network



Rail also has plans to provide the Crossing Loop on the Braintree Branch Line which will facilitate an increase in train service frequencies between Braintree and London Liverpool Street during the plan period.

10.14 It is recommended that early discussions be held with bus operators to discuss how best existing timetables might be amended to serve the AoS. An initial review of existing timetables suggests that it may be feasible to make relatively minor amendments to existing routes to incorporate the AoS west of Great Dunmow without having a major impact on existing service coverage and/or timetables. Further recommendations guiding development of public transport include:

- Ensuring development layouts are designed so as to provide convenient and efficient coverage for public transport vehicles ensuring as many properties lie within 400m walking distance of bus stops as possible;
- Investigating how service improvements might be used as a catalyst to improve overall service frequency and/or deliver direct connections to an increased number of destinations. Delivery of a direct service between the development site and Bishop's Stortford might be considered particularly advantageous in order to provide increased coverage for work related travel and to connect into longer distance rail services operating out of Bishop's Stortford station.



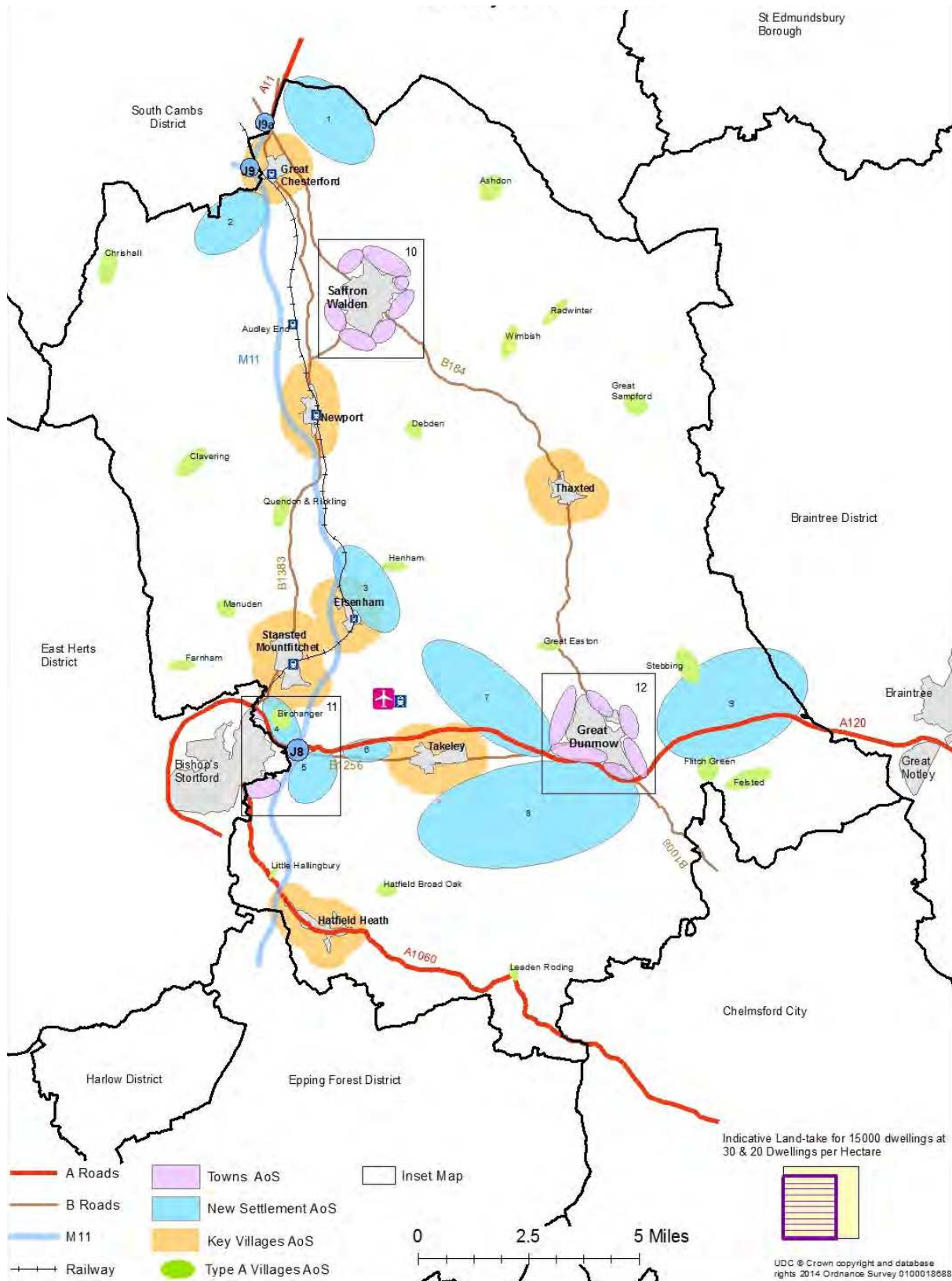
## Appendices



## Appendix A – Plan of AoS

### 3 Areas of Search

Figure 1 Areas of Search





## Appendix B – SWOT Summary for AoS

## Uttlesford District Areas of Search: Site Sustainability SWOT Analysis

| <b>NS1 – M11 Junction 9a East</b>   |   |
|---|---|
| <p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• Within feasible walking and cycling distance of existing services in Great Chesterford</li> <li>• Development would likely support existing and act as a catalyst for development of further service provision serving the local area</li> <li>• Development would benefit from proximity to passenger rail services operating out of Great Chesterford station</li> <li>• Site has good connections to SRN via J9a and J10 of the M11. Impact of additional traffic accessing the SRN on existing settlements likely to be minimal</li> <li>• Good access to medium distance employment opportunities by rail and SRN</li> </ul> | <p><b>Weaknesses:</b></p> <ul style="list-style-type: none"> <li>• Existing services within Great Chesterford quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements</li> <li>• Existing passenger rail services operating out of Great Chesterford have limited capacity to accommodate growth with limited scope for improvement</li> <li>• Existing local highway infrastructure providing connections to the northbound M11 via J10 would likely require upgrading. Limited access to the site from the north &amp; east</li> <li>• There would likely be a degree of severance between the new settlement and Great Chesterford imparted by Walden Road</li> <li>• No proposals for major growth nearby in adjacent South Cambridgeshire Council plan or straddling boundary</li> </ul> |
| <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>• New settlements offer opportunities for enhanced sustainability through delivery of new infrastructure/services</li> <li>• Good opportunity to promote travel by train subject to appropriate capacity</li> <li>• Opportunity to enhance sustainable transport access towards Cambridge</li> </ul>  | <p><b>Threats:</b></p> <ul style="list-style-type: none"> <li>• Infrastructure investment required to make new settlements sustainable may affect viability</li> <li>• Securing suitable upgrades to bus services serving the site</li> <li>• Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services</li> <li>• Access to A11 slip road outside of owners / UDC control and may not be acceptable to Highways England</li> <li>• Site selection would be premature of South Cambridgeshire Council plan and could be prejudicial</li> <li>• Risk of piecemeal unsustainable growth / uncoordinated transport infrastructure</li> <li>• Premature of Joint South Cambridgeshire / Cambridge City Councils' Plan</li> </ul>   |

## NS3 – Elsenham

### Strengths:

- Site well located to provide access to existing services and amenities within Elsenham village
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Development would benefit from proximity to passenger rail services operating out of Elsenham station
- Site located close to existing employment opportunities at Stansted Airport
- Site benefits from existing bus services providing direct connections to Stansted Airport and Bishops Stortford

### Opportunities:

- New settlements offer opportunities for enhanced sustainability through delivery of new infrastructure/services
- New settlement offers opportunity to enhance existing bus services to / from Stansted Airport & Bishops Stortford
- Good opportunity to promote travel by train subject to appropriate capacity

### Weaknesses:

- The site is poorly connected to the SRN. Additional traffic associated with development would likely be distributed onto unsuitable parts of the network and impact detrimentally on existing settlements
- The Cambridge – London rail line severs the site from existing retail and service provision within Elsenham village
- Existing services within Elsenham quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements
- Limited scope to improve existing / deliver additional public transport services

### Threats:

- Potential upgrading of local highway connections to the SRN may not be feasible and delivery would be expensive even if they are. This would likely impact on financial viability of development
- Severance issues associated with the existing rail line would be technically challenging and expensive to resolve
- Securing suitable upgrades to bus services serving the site
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services



**NS7 – West of Great Dunmow North of A120,**

**Strengths:**

- Site well located in relation to existing services on periphery of west Great Dunmow
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Existing walking and cycling connections through the western suburbs connecting to Great Dunmow town centre reasonably well developed offering clear potential to serve the site
- Local highways connecting the site to the SRN of a broadly appropriate standard and likely impact of additional traffic on existing settlements likely to be minimal
- Site benefits from existing off-carriageway walking and cycling infrastructure, notably Flich Way that connects to Stansted Airport and Braintree
- Site located close to existing employment opportunities at Stansted Airport
- Site benefits from existing bus services providing direct connections to Stansted Airport, Bishop's Stortford and Braintree

**Weaknesses:**

- Site located a little distance away from existing services located within Great Dunmow but still within feasible walking and cycling distance
- The site is located some distance from the existing rail network (via Stansted Airport and / or Braintree)
- Existing passenger rail services operating out of Stansted Airport and Braintree serve a limited number of destinations and have limited capacity to accommodate growth
- Potential phasing to take account of mineral extraction permission

**Opportunities:**

- New settlement offers opportunities for enhanced sustainability through delivery of new infrastructure/services
- New settlement offers opportunity to enhance existing bus services to / from Stansted Airport, Bishops Stortford and key settlements to the south and east including Braintree, Colchester and Chelmsford
- New settlement offers opportunity to secure improved accessibility and upgrades to the Flich Way

**Threats:**

- Ensuring delivery of suitable walking and cycling corridors through the western suburbs of Great Dunmow
- Securing suitable upgrades to bus services serving the site, particularly given the lack of local accessibility to the rail network
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services

## NS9 – West of Braintree

### Strengths:

- Site close to existing services and employment sites in Great Dunmow and Braintree and to existing services in Rayne that lie within feasible walking and cycling distance
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Site offers potential to tie in with proposed development of c. 2,500 new homes in the vicinity of Rayne within Braintree District within the forthcoming Plan period & potential for this number to increase over the longer-term planning horizon
- Site is close to the SRN and likely impact of additional traffic on existing settlements likely to be minimal
- Site close to off-carriageway walking and cycling infrastructure, notably Flich Way that connects to Stansted Airport and Braintree
- Site benefits from existing bus services providing direct connections to Stansted Airport, Bishops Stortford and Braintree. It is considered likely that there would be significant scope for improvement of existing / new services in combination with development proposed within Braintree District in the vicinity of Rayne

### Opportunities:

- New settlement offers opportunities for enhanced sustainability through delivery of new infrastructure/services
- New settlement could tie in with proposed development in adjacent Braintree District to deliver enhanced opportunities for delivery of local services and sustainable transport infrastructure
- New settlement offers opportunity to enhance existing bus services to / from Stansted Airport, Bishops Stortford and key settlements to the south and east including Braintree, Colchester and Chelmsford
- Potential to access Braintree and Notley rail stations
- New settlement offers opportunity to secure improved accessibility and upgrades to the Flich Way

### Weaknesses:

- Delivery of walking and cycling connections to Great Dunmow may be difficult to secure due to existing space constraints on existing highway corridors
- Some upgrading of the local highways network may be required to connect the site to SRN
- The site is located some distance from the existing rail network (via Stansted Airport and / or Braintree)
- Existing passenger rail services operating out of Stansted Airport and Braintree serve a limited number of destinations and have limited capacity to accommodate growth
- Site reliant on Braintree part coming forward

### Threats:

- Ensuring delivery of suitable walking and cycling corridors through the eastern suburbs of Great Dunmow
- Ensuring compatibility with proposed development in adjacent Braintree District
- Securing suitable upgrades to bus services serving the site, particularly given the lack of local accessibility to the rail network  
Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services
- Ensuring appropriate upgrading of local highway connections to the SRN

## North of Takeley

### Strengths:

- Site well located in relation to existing services in Takeley.
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area.
- Existing walking and cycling connections through Little Canfield to Takeley are reasonably well developed offering clear potential to serve the site
- New grade-separated all movements junction onto the A120(T) assumed to serve the development therefore access to the SRN is excellent and a new junction would also serve existing development and provide some traffic relief on the local highway network.
- Impact of additional traffic on existing settlements likely to be minimal.
- Site located close to existing employment opportunities at Stansted Airport.
- Site close to existing bus services providing direct connections to Stansted Airport, Bishop's Stortford and Braintree

### Weaknesses:

- Range of local services offered within Little Canfield and Takeley is relatively limited.
- A new grade-separated all movements junction onto the A120(T) would be required to serve the development.
- The site is located some distance from the existing rail network (via Stansted Airport and / or Braintree)
- Existing passenger rail services operating out of Stansted Airport and Braintree serve a limited number of destinations and have limited capacity to accommodate growth.

### Opportunities:

- A new grade-separated all movements junction onto the A120(T) would be required to serve the development which would also serve existing development and provide some traffic relief on the local highway network.
- New settlement offers opportunities for enhanced sustainability through delivery of new infrastructure/services.
- Opportunities to support existing services in Takeley and Little Cranfield and assist in provision of school places
- New settlement offers opportunity to enhance existing bus services to / from Stansted Airport, Bishops Stortford and key settlements to the south and east including Braintree, Colchester and Chelmsford.

### Threats:

- A new grade-separated all movements junction onto the A120(T) would be required to serve the development. This would be subject to technical feasibility to deliver a junction that complies with relevant highway design standards. The cost of providing a new junction could also make the development commercially unviable.
- The relatively limited range of local services available within Little Canfield and Takeley is likely to result in car trips to larger service centres.
- Securing suitable upgrades to bus services serving the site, particularly given the lack of local accessibility to the rail network
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services

## Little Dunmow

### Strengths:

- Site well located in relation to existing services in Little Dunmow.
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area.
- New grade-separated all movements junction onto the A120(T) assumed to serve the development therefore access to the SRN is excellent and a new junction would also serve existing development and provide some traffic relief on the local highway network.
- Site close to off-carriageway walking and cycling infrastructure, notably Flich Way that connects to Stansted Airport and Braintree
- Site located close to existing employment opportunities in Great Dunmow and Stansted Airport.
- Site close to existing bus services providing direct connections to Stansted Airport, Bishop's Stortford and Braintree.

### Weaknesses:

- The local services offered within Little Dunmow are very limited (public house and a church).
- A new grade-separated all movements junction onto the A120(T) would be required to serve the development.
- The site is located to the south of the A120(T) which separates it from Great Dunmow making walking and cycling accessibility less convenient.
- The site is located some distance from the existing rail network (via Stansted Airport and / or Braintree)
- Existing passenger rail services operating out of Stansted Airport and Braintree serve a limited number of destinations and have limited capacity to accommodate growth.

### Opportunities:

- A new grade-separated all movements junction onto the A120(T) would be required to serve the development which would also serve existing development and provide some traffic relief on the local highway network.
- New settlement offers opportunities for enhanced sustainability through delivery of new infrastructure/services.
- Assist the limited services available in Little Dunmow and Felsted
- New settlement offers opportunity to enhance existing bus services to / from Stansted Airport, Bishops Stortford and key settlements to the south and east including Braintree, Colchester and Chelmsford.

### Threats:

- A new grade-separated all movements junction onto the A120(T) would be required to serve the development. This would be subject to technical feasibility to deliver a junction that complies with relevant highway design standards. The cost of providing a new junction could also make the development commercially unviable.
- The very limited range of local services available within Little Dunmow is likely to result in car trips to larger service centres.
- Development at this location has the potential to increase traffic flows through Felsted for trips to/from Chelmsford.
- Securing suitable upgrades to bus services serving the site, particularly given the lack of local accessibility to the rail network
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services

**MT1 – Saffron (7 sites)****Strengths:**

- Sites located in close proximity to existing services and employment opportunities in Saffron Walden, itself the biggest settlement in the District
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Sites would benefit from well developed bus network providing direct services to a number of key destinations across the district and beyond
- Development would benefit from proximity to passenger rail services operating out of Audley End station approximately 6.0km to the south-west
- Good access to medium distance employment opportunities by rail
- Spreading development across several sites may help to disperse traffic impacts

**Weaknesses:**

- Sites located some distance from the SRN. Development would need to consider impact on existing settlements along local highways providing access to the SRN and would likely require local highways upgrading to avoid unacceptable impact on town centre
- Major sites within Saffron Walden are located to the east of the town on the opposite side to major highways connections and Audley End station
- Delivery of walking and cycling connections between sites and Saffron Walden town may be difficult to secure due to existing space constraints on existing highway corridors
- Audley End station is some distance from the town (approximately 6.0km) and existing walking / cycling connections inadequate
- Existing passenger rail services operating out of Audley End have limited capacity to accommodate growth
- Delivery of dispersed settlement pattern across several sites limits opportunity to concentrate and justify improvements to local services as part of the development thus increasing the need to travel

**Opportunities:**

- New settlements offer opportunities for enhanced sustainability through supporting existing and prompting delivery of new infrastructure / services
- Dispersal of development may help mitigate potential traffic impacts

**Threats:**

- Ensuring delivery of suitable walking and cycling infrastructure along space constrained highway corridors within Saffron Walden to limit potential traffic impacts
- Ensuring additional traffic impact on town centre is not unreasonable
- Ensuring delivery of necessary services to support development

## MT2 – Great Dunmow (6 sites)

### Strengths:

- Sites close to existing services and employment sites in Great Dunmow and Braintree
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Site offers potential to tie in with proposed development of c. 3,100 new homes in the vicinity of Rayne within Braintree District
- Sites are close to the SRN
- Sites are close to off-carriageway walking and cycling infrastructure, notably Flich Way that connects to Stansted Airport and Braintree
- Existing walking and cycling connections through the western suburbs connecting to Great Dunmow town centre reasonably well developed offering clear potential to serve the site
- Sites would likely benefit from existing bus services providing direct connections to Stansted Airport, Bishops Stortford and Braintree
- Spreading development across several sites may help to disperse traffic impacts
- Sites located close to existing employment opportunities at Stansted Airport

### Weaknesses:

- Delivery of walking and cycling connections between sites and Great Dunmow town may be difficult to secure to the north and east of the town due to existing space constraints on existing highway corridors
- Some upgrading of the local highways network may be required to connect the site to SRN
- Sites are located some distance (approximately 5.0km min.) from access to the rail network at Stansted Airport and / or Braintree stations
- Existing passenger rail services operating out of Stansted Airport and Braintree serve a limited number of destinations and have limited capacity to accommodate growth
- Delivery of dispersed settlement pattern across several sites limits opportunity to concentrate and justify improvements to local services as part of the development thus increasing the need to travel

### Opportunities:

- New settlements offer opportunities for enhanced sustainability through supporting existing and prompting delivery of new infrastructure / services
- Dispersal of development may help mitigate potential traffic impacts
- New settlement could tie in with proposed development in adjacent Braintree District to deliver enhanced opportunities for delivery of local services and sustainable transport infrastructure
- New settlement offers opportunity to enhance existing bus services to / from Stansted Airport, Bishops Stortford and key settlements to the south and east including Braintree, Colchester and Chelmsford
- New settlement offers opportunity to secure improved accessibility and upgrades to the Flich Way

### Threats:

- Ensuring delivery of suitable walking and cycling corridors to connect new development to key services around Great Dunmow
- Ensuring compatibility with proposed development in adjacent Braintree District
- Securing suitable upgrades to bus services serving the sites, particularly given the lack of local accessibility to the rail network  
Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services
- Ensuring appropriate upgrading of local highway connections to the SRN

**KV1 – Elsenham****Strengths:**

- Site well located to provide access to existing services and amenities within Elsenham village
- Development would likely support existing and act as a catalyst for limited development of further service provision serving the local area
- Development would benefit from proximity to passenger rail services operating out of Elsenham station
- Site located close to existing employment opportunities at Stansted Airport
- Site benefits from existing bus services providing direct connections to Stansted Airport and Bishop's Stortford

**Weaknesses:**

- The site is poorly connected to the SRN. Additional traffic associated with development would likely be distributed onto unsuitable parts of the network and impact detrimentally on existing settlements
- Existing passenger rail services operating out of Elsenham have limited capacity to accommodate growth
- The Cambridge – London rail line severs the site from existing retail and service provision within Elsenham village
- Existing services within Elsenham quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements

**Opportunities:**

- New settlements offer opportunities for enhanced sustainability by providing support to existing and limited delivery of additional infrastructure/services
- New settlement offers opportunity to support & potentially enhance existing bus services to / from Stansted Airport & Bishops Stortford
- Good opportunity to promote travel by train subject to appropriate capacity

**Threats:**

- Care would need to be taken to ensure scale of development proposed does not exceed ability of the local highways network to accommodate it appropriately and without causing an unacceptable impact. It is not clear if suitable mitigation could be achieved with the scale of funds that would likely be available
- Severance issues associated with the existing rail line would be technically challenging and expensive

**KV2 – Great Chesterford****Strengths:**

- Sites within feasible walking and cycling distance of existing services in Great Chesterford
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Development would benefit from proximity to passenger rail services operating out of Great Chesterford station
- Sites well located in relation to SRN via J9a and J10 of the M11. Impact of additional traffic accessing the SRN on existing settlements likely to be minimal
- Good access to medium distance employment opportunities by rail and SRN
- Spreading development across several sites may help to disperse traffic impacts

**Weaknesses:**

- Existing services within Great Chesterford quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements
- Existing passenger rail services operating out of Great Chesterford have limited capacity to accommodate growth
- Existing local highway infrastructure providing connections to the northbound M11 via J10 may require upgrading
- Delivery of dispersed settlement pattern across several sites limits opportunity to concentrate and justify improvements to local services as part of the development thus increasing the need to travel

**Opportunities:**

- New settlements offer opportunities for enhanced sustainability by providing support to existing and limited delivery of additional infrastructure/services
- Dispersal of development may help mitigate potential traffic impacts
- Good opportunity to promote travel by train subject to appropriate capacity

**Threats:**

- Delivery of increased capacity on rail services difficult to achieve
- Potential upgrading of local highway connections to the SRN may not be feasible and delivery would be expensive even if they are. This would likely impact on financial viability of development
- Ensuring delivery of necessary services to support development

**KV4 – Newport****Strengths:**

- Sites within feasible walking and cycling distance of existing services in Newport village
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Development would benefit from proximity to passenger rail services operating out of Newport station
- Good access to medium distance employment opportunities by rail
- Spreading development across several sites may help to disperse traffic impacts

**Weaknesses:**

- Existing services within Newport quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements
- Existing passenger rail services operating out of Newport have limited capacity to accommodate growth
- The alignment of the B1383 and B1038 likely to cause severance issues between residential areas of the village and the rail station
- Sites located a substantial distance from the SRN. Development would need to consider impact on existing settlements along local highways providing access to the SRN
- Delivery of dispersed settlement pattern across several sites limits opportunity to concentrate and justify improvements to local services as part of the development thus increasing the need to travel

**Opportunities:**

- New settlements offer opportunities for enhanced sustainability by providing support to existing and limited delivery of additional infrastructure/services
- Dispersal of development may help mitigate potential traffic impacts
- Good opportunity to promote travel by train subject to appropriate capacity

**Threats:**

- Delivery of increased capacity on rail services difficult to achieve
- Potential upgrading of local highway connections to the SRN may not be feasible and delivery would be expensive even if they are. This would likely impact on financial viability of development
- Ensuring delivery of necessary services (including public transport) to support development
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services



**KV5 – Stansted Mountfitchet (north only)**

**Strengths:**

- Site well located to provide access to existing services and amenities within Stansted Mountfitchet
- Development would likely support existing and act as a catalyst for limited development of further service provision serving the local area
- Development would benefit from proximity to passenger rail services operating out of Stansted Mountfitchet station
- Good access to medium distance employment opportunities by rail
- Site located close to existing employment opportunities at Stansted Airport and Bishop's Stortford
- Site benefits from existing bus services providing direct connections to Stansted Airport and Bishop's Stortford
- Site is close to the SRN

**Weaknesses:**

- The site is located on the north side of Stansted Mountfitchet with access to the SRN to the south. This would mean development traffic may be distributed onto unsuitable parts of the network to gain access to the SRN that would impact detrimentally on existing settlements
- Access to the SRN at M11 J8 likely to require upgrading
- Existing passenger rail services operating out of Stansted Mountfitchet have limited capacity to accommodate growth
- Existing services within Stansted Mountfitchet are quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements

**Opportunities:**

- New settlements offer opportunities for enhanced sustainability by providing support to existing and limited delivery of additional infrastructure/services
- New settlement offers opportunity to support & potentially enhance existing bus services to / from Stansted Airport & Bishops Stortford
- Good opportunity to promote travel by train subject to appropriate capacity

**Threats:**

- Delivery of increased capacity on rail services difficult to achieve
- Potential upgrading of access to the SRN may impact on financial viability of development
- Ensuring delivery of necessary services (including public transport) to support development
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services

**KV6 - Takeley****Strengths:**

- Sites close to existing services and employment sites in Great Dunmow, Bishop's Stortford and at Stansted Airport
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area
- Sites are close to the SRN although provision of appropriate access would need further consideration
- Sites are close to off-carriageway walking and cycling infrastructure, notably Flich Way that connects to Stansted Airport, Great Dunmow and Braintree
- Sites would likely benefit from existing bus services providing direct connections to Stansted Airport, Bishops Stortford and Braintree
- Spreading development across several sites may help to disperse traffic impacts

**Weaknesses:**

- The site is not particularly well connected to the A120. Traffic heading east would need to travel along a substantial section of the B1256 past Canfield to gain access and traffic to the west would go through the M11 J8. Access to the SRN at M11 J8 likely to require upgrading
- Existing services within Takeley are quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements
- Delivery of dispersed settlement pattern across several sites limits opportunity to concentrate and justify improvements to local services as part of the development thus increasing the need to travel
- Existing passenger rail services operating out of Stansted Airport serve a limited number of destinations and have limited capacity to accommodate growth

**Opportunities:**

- New settlements offer opportunities for enhanced sustainability by providing support to existing and limited delivery of additional infrastructure/services
- New settlement offers opportunity to support & potentially enhance existing bus services to / from Stansted Airport & Bishops Stortford
- Reasonable opportunity to promote travel by train subject to appropriate capacity
- Dispersal of development may help mitigate potential traffic impacts
- New settlement offers opportunity to secure improved accessibility and upgrades to the Flich Way

**Threats:**

- Delivery of increased capacity on rail services difficult to achieve
- Potential upgrading of access to the SRN may impact on financial viability of development
- Ensuring delivery of necessary services (including public transport) to support development
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services

**KV7 - Thaxted****Strengths:**

- Sites well located to provide access to existing services and amenities within Thaxted village
- Development would likely support existing and act as a catalyst for development of further service provision serving the local area

**Weaknesses:**

- The sites are poorly connected to and a long distance from the SRN. Additional traffic associated with development would likely be distributed onto unsuitable parts of the network and impact detrimentally on existing settlements
- Sites are located some distance (approximately 12.0km min.) from access to the rail network at Elsenham
- Existing passenger rail services operating out of Elsenham serve a limited number of destinations and have limited capacity to accommodate growth
- Delivery of dispersed settlement pattern across several sites limits opportunity to concentrate and justify improvements to local services as part of the development thus increasing the need to travel
- Limited scope to improve existing / deliver additional public transport services
- Existing services within Thaxted are quite limited in scope therefore there would likely be a need to deliver additional or rely on travel to more distant locations to fulfil day to day requirements

**Opportunities:**

- New settlements offer opportunities for enhanced sustainability through delivery of new infrastructure/services
- New settlement offers a limited opportunity to enhance existing bus services to / from Saffron Walden, Stansted Airport & Bishops Stortford
- Dispersal of development may help mitigate potential traffic impacts

**Threats:**

- Potential upgrading of local highway connections to the SRN may not be feasible and delivery would be expensive even if they are. This would likely impact on financial viability of development
- Securing suitable upgrades to bus services serving the site, particularly given the lack of local accessibility to the rail network
- Long term viability of developer funded bus services cannot be guaranteed because Essex County Council will not take up responsibility for operating unviable services



## Appendix C – Sustainability Assessment Criteria



#### Internal Service/Amenity Provision:

| Score | Description  |
|-------|--|
| 5     | Development site likely to be of a sufficient scale to accommodate all key day to day service and amenity requirements.  |
| 4     | Development site likely to be of a sufficient scale to accommodate most key day to day service and amenity requirements.   |
| 3     | Development site likely to be of a sufficient scale to accommodate some key day to day service and amenity requirements but larger requirements (e.g. food retail, secondary school) are located off-site. |
| 2     | Development site largely reliant upon off-site services and amenities for all but minor day to day requirements.   |
| 1     | Development site entirely reliant upon off-site services and amenities.  |

#### Access to Existing Rail Services:

| Score | Description   |
|-------|---|
| 5     | Nearest existing passenger rail station within 2.0km of site. |
| 4     | Nearest existing rail station between 2.0 & 5.0km of site.    |
| 3     | Nearest existing rail station between 5.0 & 10.0km of site.   |
| 2     | Nearest existing rail station between 10.0 & 15.0km of site.  |
| 1     | Nearest existing rail station over 15.0km from site.          |

#### Access to Existing Bus Services:

| Score | Description  |
|-------|--|
| 5     | Existing services run through site.                          |
| 4     | Existing services run adjacent to (within 800m of) the site. |
| 3     | Nearest service within 2.0km of the site.                    |
| 2     | Nearest service within 5.0km of the site.                    |
| 1     | No services within 5.0km of the site.                        |



#### Quality of Existing Bus Services:

| Score | Description   |
|-------|---|
| 5     | Existing service operates at half hourly frequency or better and provides direct link to higher order centre and / or major employment site within a thirty minute journey time.  |
| 4     | Existing service operates at an hourly frequency or better and provides direct link to higher order centre and / or major employment site within a thirty minute journey time.    |
| 3     | Existing service operates at a half hourly frequency or better and provides direct link to higher order centre and / or major employment site within a sixty minute journey time. |
| 2     | Existing service operates at an hourly frequency or better and provides direct link to higher order centre and / or major employment site within a sixty minute journey time.     |
| 1     | All other circumstances.  |

#### Ease of Implementing New/Additional Bus Services to Serve the Site:

| Score | Description  |
|-------|--|
| 5     | Development likely to justify upgrading of existing established bus service(s) to provide high quality services providing both internal connections and accessibility to at least one higher order centre. |
| 4     | Development likely to be of a sufficient scale to justify implementation of some additional services providing both internal connections and accessibility to at least one higher order centre.            |
| 3     | Development likely to be of a sufficient scale to justify implementation of some additional services providing internal connections and accessibility to at least one existing local service centre.       |
| 2     | Development likely to be of a sufficient scale to justify implementation of some additional services providing internal connections.   |
| 1     | Development unlikely to justify additional service provision.  |



### **Pedestrian/Cycle Accessibility to Existing Settlements:**

| <b>Score</b> | <b>Description</b>   |
|--------------|--|
| <b>5</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within two km of the site boundary with no major barrier between (e.g. major road, rail or water).   |
| <b>4</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within two km of the site boundary but with major barrier between (e.g. major road, rail or water).  |
| <b>3</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within five km of the site boundary with no major barrier between (e.g. major road, rail or water).  |
| <b>2</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within five km of the site boundary but with major barrier between (e.g. major road, rail or water). |
| <b>1</b>     | All other circumstances.   |

### **Potential Pedestrian/Cycle Accessibility to Existing Settlements:**

| <b>Score</b> | <b>Description</b>   |
|--------------|--|
| <b>5</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within two km of the site boundary with no major barrier between (e.g. major road, rail or water).   |
| <b>4</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within two km of the site boundary but with major barrier between (e.g. major road, rail or water).  |
| <b>3</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within five km of the site boundary with no major barrier between (e.g. major road, rail or water).  |
| <b>2</b>     | Existing settlement containing a minimum two from the following: primary & secondary schooling facilities, local food retail, area of employment and / or one further local amenity (e.g. Post Office, library or leisure based facility) within five km of the site boundary but with major barrier between (e.g. major road, rail or water). |
| <b>1</b>     | All other circumstances.   |



**Existing access to Major/Strategic Highway Network:**

| <b>Score</b> | <b>Description</b>   |
|--------------|--|
| <b>5</b>     | Direct access from site to strategic road network.   |
| <b>4</b>     | Access to strategic road network within 2.0km and via appropriate access routes.   |
| <b>3</b>     | Access to strategic road network within 5.0km and via appropriate access routes.   |
| <b>2</b>     | Access to strategic road network within 2.0km but via highways running through sensitive areas of existing settlement / along sub-standard routes. |
| <b>1</b>     | Access to strategic road network within 5.0km but via highways running through sensitive areas of existing settlement / along sub-standard routes. |





## **Appendix F – TN6 - Modelling Methodology**



**Uttlesford District Council**  
**District Wide Transport Study**  
**Technical Note 6 – Modelling Methodology**

**1 Introduction**

- 1.1 To support the Uttlesford transport study a strategic VISUM model has been built to assign development trips onto the study area network. This technical note describes the methodology used to build the VISUM model and how the modelled development flows have then been applied to identify network 'stress'.

**2 Network Building**

- 2.1 The model was built using VISUM version 15.00-11. It is a highway-only model with a relatively simple structure.
- 2.2 The spatial extent of the modelled highway network covers the Uttlesford study area, with the edges of the network falling in the surrounding districts. **Figure 1** shows the study area and **Figure 2** shows the modelled network in the context of the study area.
- 2.3 The model links were created from the Ordnance Survey Integrated Transport Network (ITN) road link layer. A subset of the road links was extracted that included all Motorway, 'A' road and 'B' road classified links. Additional minor road links were also included where deemed to be of local importance for the purposes of the study or whereby the removal of a link would leave only circuitous alternative routes though the district that would not be used in reality.
- 2.4 **Figure 3** shows the zoning system, which covers England and Wales. Middle Super Output Areas (MSOAs) from the 2011 Census were used for the main model area within Uttlesford and its surrounding districts. For the more distant areas around the main model area districts were used as zones. The remaining remote areas of the country were covered by zones based upon Government Office Regions (GORs). Using a zoning system geographically aligned with the census simplified the use of distribution data, which was based on census journey-to-work information. Additional zones were created for the development Areas of Search (AoS).
- 2.5 Connectors between zones and the network were added manually so that flows to and from each zone are directed along paths representative of the location's layout. Zone connectors are depicted in **Figure 4**.
- 2.6 By design there are no base traffic flows in the model. The VISUM model has been used solely to assign future development flows onto the study area network. The assigned link flows are then output to a spreadsheet calculation that uses surveyed link flows to determine Congestion Reference Flows (CRF) and percentage 'stress'.



### 3 Network Stress

#### CRF Calculation

- 3.1 Network performance for the road network within the study area has been assessed based on link capacity. The prime indicator for road capacity and congestion on rural links is determined by the Congestion Reference Flow (CRF), which is defined in Annex D of TA 46/97 'Traffic Flow Ranges for use in the Assessment of New Rural Roads' as follows:

*"The Congestion Reference Flow (CRF) of a link is an estimate of the Annual Average Daily Traffic (AADT) flow at which the carriageway is likely to be congested at peak periods on an average day. For the purposes of calculating the CRF, 'congestion' is defined as a situation when the hourly traffic demand exceeds the maximum sustainable hourly throughput of the link. At this point the effect on traffic is likely to be one or more of the following: flow breaks down with speeds varying considerably, average speeds drop significantly, the sustainable throughput is reduced and queues are likely to form. This critical flow level can vary from day to day and from site to site and must be considered as an average. The CRF is a measure of the performance of a road link between junctions."*

*"The congestion threshold is a measure of the maximum achievable hourly throughput of a link."*

*"Any increase in demand above this threshold can lead to flow breakdown, queueing and reduced throughput."*

*"The threshold may be expressed in terms of annual average daily traffic (AADT) by identifying the likely ratio of peak to daily flow and applying this to the threshold hourly value. The resulting AADT is known as the Congestion Reference Flow (CRF)".<sup>1</sup>*

- 3.2 Congestion reference flows for all key links within the study area have been estimated using the formula contained within Annex D of TA 46/97 'Traffic Flow Ranges for use in the Assessment of New Rural Roads'; reproduced below:

D.3 The CRF of a link is given by the formula:

$$\text{CRF} = \text{CAPACITY} * \text{NL} * \text{Wf} * 100/\text{PkF} * 100/\text{PkD} * \text{AADT}/\text{AAWT}$$

where, CAPACITY is the maximum hourly lane throughput (see note 1);

NL is the Number of Lanes per direction;

Wf is a Width Factor (see note 2);

PkF is the proportion (percentage) of the total daily flow (2-way) that occurs in the peak hour;

PkD is the directional split (percentage) of the peak hour flow;

AADT is the Annual Average Daily Traffic flow on the link;

AAWT is the Annual Average Weekday Traffic flow on the link.

---

<sup>1</sup> Source: Design Manual for Roads and Bridges, Volume 5, Section 1, Part 3 TA 46/97.



- 3.3 The number of lanes and carriageway widths were estimated from a study of aerial photography available from the Internet. Traffic flows, flow proportions and directional splits were taken from automatic traffic count (ATC) data from locations across the district.
- 3.4 Based on the calculated reference capacities link "stress" levels have been identified where "stress" is defined as the ratio of the annual average daily traffic (AADT) flow to the Congestion Reference Flow expressed as a percentage.
- 3.5 A stress level of 100% (i.e. when the demand flow equals the CRF value) is the critical point at which link flows breakdown resulting in queuing and reduced throughput. Therefore for the purposes of this study the following stress thresholds have been applied to identify when links are approaching, or exceeding their theoretical maximum capacity:
- Less than 90% stress - the link operates within capacity, although journey times may become less reliable over 75% stress (see below).
  - Between 90% and 99% stress - The link is approaching capacity and is increasingly susceptible to flow breakdown.
  - Greater than 100% stress - The link operates over capacity and is likely to experience flow breakdown on a regular basis.
- 3.6 The above thresholds have been applied to easily identify when link capacity is approaching critical conditions (i.e. 100% stress). However, it should be noted that 75% stress is generally accepted as the threshold level for adverse effects on journey time reliability. Therefore, links with between 75% and 99% stress will still be operating within capacity but journey times are likely to be less reliable than on links with less than 75% stress.

#### **4 Reference Case**

- 4.1 A Reference Case VISUM model was built for the 2033 assessment year (end of Local Plan period). This takes into account growth in background traffic and committed development trips anticipated at the end of the plan period, before the proposed Local Plan growth within Uttlesford is added.
- 4.2 A DfT Transport Analysis Guidance (TAG) compliant Uncertainty Log was compiled in order to build a Core Scenario reference case model. The compilation of the Uncertainty Log is described in more detail in Technical Note 4 (TN4 - Uncertainty Log). The following local authorities surrounding Uttlesford District were contacted and asked to complete an uncertainty log for their respective areas:
- East Hertfordshire
  - Epping Forest
  - Harlow
  - Chelmsford
  - South Cambridgeshire
  - Braintree
- 4.3 Residential and Employment sites identified as 'near certain' and 'more than likely' were included in the matrix building process as per the WebTAG definition of the Core Scenario. Sites identified as 'reasonably foreseeable' and 'hypothetical' were excluded.



- 4.4 Trip generation for these sites used the methodology given in Technical Note 2 (TN2 Trip Rates & Generation), with the exception of certain large B1 development use-class sites proposed in South Cambridgeshire which were identified as B1(b) Research & Development Business Parks and were therefore assigned a lower trip rate than the B1 Business Park trip rates identified in TN2, as shown in the table below:

**Table 1 – B1(b) Development Use-Class Business Parks Adjusted Trip Rates**

| B1b (adjusted) | AM      | PM      |
|----------------|---------|---------|
| Inbound        | 1.11451 | 0.17735 |
| Outbound       | 0.25914 | 0.80475 |

- 4.5 The Department for Transport trip-end model (TEMPRO v6.2) was used to uplift development levels in each surrounding district individually. Districts with developments in excess of TEMPRO predictions were left as they were. Districts with development totals falling short of TEMPRO were uplifted, in accordance with WebTAG guidance.

**Table 2 – District Residential Dwelling Totals**

| District             | Uncertainty Log Dwellings | TEMPRO Dwellings | Final Dwellings |
|----------------------|---------------------------|------------------|-----------------|
| Uttlesford           | 6,706                     | Not assessed     | 6,706           |
| Braintree            | 0                         | 4,876            | 4,876           |
| Cambridge City       | 4,488                     | 17,386           | 17,386          |
| Chelmsford           | 3,472                     | 16,406           | 16,406          |
| East Hertfordshire   | 3,792                     | 5,489            | 5,489           |
| Epping Forest        | 457                       | 3,468            | 3,468           |
| Harlow               | 3,725                     | 6,047            | 6,047           |
| South Cambridgeshire | 7,927                     | 18,942           | 18,942          |

- 4.6 Although an uncertainty log was not requested from Cambridge City Council, certain sites in South Cambridgeshire straddle the border with Cambridge City. For this reason zones in Cambridge City have been allocated dwellings and so Cambridge City appears in the table.
- 4.7 An employment comparison between the uncertainty log and TEMPRO forecasts is less straightforward than for dwellings. This is because TEMPRO forecasts jobs rather than the particular levels of B1, B2 or B8 found in the uncertainty log. To reconcile TEMPRO and the uncertainty log, the committed development GFAs were converted to number of Full Time Equivalent (FTE) jobs using the following factors sourced from the Homes and Communities Agency's Employment Density Guide 3<sup>rd</sup> Edition:

**Table 3 – GFA per Job by Land-Use Class**

| Use class                    | GFA (m <sup>2</sup> ) per Job (FTE) |
|------------------------------|-------------------------------------|
| B1 Business                  | 12                                  |
| B1(a) Office                 | 12                                  |
| B1(b) Research & Development | 50                                  |
| B1(c) Light Industry         | 47                                  |
| B2 General Industrial        | 36                                  |
| B8 Storage & Distribution    | 77                                  |

- 4.8 The table below gives the number of jobs calculated from the uncertainty log, given by TEMPRO, and the final number used in the modelling for each district.



**Table 4 – District FTE Job Totals**

| District      | Uncertainty Log FTE Jobs | TEMPRO FTE Jobs     | Final FTE Jobs |
|---------------|--------------------------|---------------------|----------------|
| Uttlesford    | 3,664                    | Not assessed        | 3,664          |
| Braintree     | 0                        | 2,116               | 2,116          |
| Cambridge     | -1,033 <sup>2</sup>      | 12,474              | 12,474         |
| Chelmsford    | 0                        | 6,322               | 6,322          |
| East Herts    | 0                        | -1,612 <sup>3</sup> | 0              |
| Epping Forest | 1,215                    | 1,585               | 1,585          |
| Harlow        | 8,531                    | 7,180               | 8,531          |
| South Cambs   | 11,568                   | 11,126              | 11,568         |

- 4.9 The new trips were distributed using Census Journey to Work data from the 2011 Census using Middle Super Output Areas (MSOAs).
- 4.10 Modal split has been dealt with at the trip generation level (this is a highway only model). The Census Journey to Work distribution matrix used the car-mode only.
- 4.11 Trips associated with future expansion of Stansted Airport to 35 million passengers per annum were supplied by Essex County Council (ECC) in the form of the forecast increase in AM/PM peak hour traffic flows to/from the airport at the 2033 assessment year. A separate trip distribution was also provided by ECC for these airport-related trips. This data was incorporated into the VISUM model as part of the Reference Case.
- 4.12 Trips have been assigned to the highway network with an 'All-or-Nothing' assignment. This means that between any origin-destination pair, all the trips for that pair are assigned to the lowest cost route, with the costs calculated from an empty network. This corresponds to the free-flow speeds when only travel time is considered, as is the case here. The free-flow speeds have been set as the existing mandatory speed limits in almost all cases for simplicity and to encourage routing on to major highway links.
- 4.13 The reasons for using an 'All-or-Nothing' assignment are two-fold. Firstly, without base traffic flows from a base model it would be impossible to find a meaningful equilibrium of route choice as existing congestion is not modelled. Secondly, the 'All-or-Nothing' assignment tells us where drivers would prefer to route in the absence of congestion or delays. This method is considered suitable for the strategic nature of the study.
- 4.14 A comparison of growth on the M11, A120 and A11 was undertaken between the Reference Case model increases over the base flows and the National Transport Model (NTM) growth forecasts for the East of England. Table 5 overleaf shows the comparison.

<sup>2</sup> The negative FTE job numbers relate to development proposals to convert employment uses to other, non-employment uses (e.g. residential)

<sup>3</sup> TEMPRO employment forecasts are based on GDP and car ownership forecasts which can down as well as up.



**Table 5 – AADT Growth Comparison with NTM (RTF 2015, Sc1)**

| Road Type | Mean % Increase of AADT from Study (2015 to 2033) | % Increase to Veh-km from NTM (2015 to 2030) | % Increase to Veh-km from NTM (2015 to 2035) |
|-----------|---|--|--|
| Motorway  | 63.4 %  | 25.4 %                                       | 31.8 %                                       |
| Trunk     | 49.4 %  | 26.6 %                                       | 32.6 %                                       |

- 4.15 Whilst a direct comparison cannot be made due to the difference in measurement units, Table 5 provides an approximate guide to 'logic check' the order of magnitude of increase in traffic flows. It should also be borne in mind that the NTM data represents average changes across a whole region whereas the assessment derived changes relate only to the local study area.
- 4.16 It can be seen from Table 5 that the predicted M11/A120/A11 growth is higher than the NTM predictions for Eastern England roads of the respective types. Apart from the fact that local differences are not represented by the regional average, it should also be noted that Stansted Airport growth has been included in the reference case and trips from this contribute significantly to the growth on the A120 and M11 within the study area, whereas the NTM does not model airport passenger numbers explicitly. Given the differences mentioned above an exact match wouldn't be expected but the order of difference observed is considered reasonable and as the modelled growth is higher than NTM the assessment is considered to be robust.

## 5 Local Plan Development Scenarios

- 5.1 Eleven different Local Plan development scenarios have been modelled for Uttlesford District. The residential development in each scenario is summarised as follows.

| Scenario | Residential Development Focussed at  | Total Dwellings |
|----------|--|-----------------|
| 1        | A / E (i) Great Chesterford  | 11,206          |
| 2        | A / E (ii) Elsenham & West of Great Dunmow                                     | 11,206          |
| 3        | A / E (iii) Elsenham & West of Braintree                                       | 11,206          |
| 4        | A / E (iv) West of Great Dunmow & West of Braintree                            | 11,206          |
| 5        | D / G (i) Great Chesterford, Elsenham, West of Great Dunmow, West of Braintree | 24,206          |
| 6        | D / G (ii) Elsenham, West of Great Dunmow, West of Braintree                   | 36,206          |
| 7        | D / G (iii) Elsenham, West of Braintree  | 26,206          |
| 8        | D / G (iv) West of Great Dunmow, West of Braintree                             | 32,206          |
| 9        | F Smaller Settlement Spread  | 11,207          |
| 10       | H West of Great Dunmow & West of Braintree & Smaller Settlement Spread         | 11,206          |
| 11       | I Great Chesterford & West of Braintree & Smaller Settlement Spread            | 11,206          |



5.2 The employment development in each scenario is summarised as follows:

| Name                               | Use-Class | Employment Growth Scenarios (Sqm) |                |                |                |                |                |                |                |                |                |                |
|------------------------------------|-----------|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                    |           | 1                                 | 2              | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             |
|                                    |           | A / E (i)                         | A / E (ii)     | A / E (iii)    | A / E (iv)     | D / G (i)      | D / G (ii)     | D / G (iii)    | D / G (iv)     | F              | H              | I              |
| Elsenham Meadows (TriSail)         | B1        | 60,000                            | 60,000         | 60,000         | 60,000         | 60,000         | 60,000         | 60,000         | 60,000         | 60,000         | 60,000         | 60,000         |
| Land north east of Bury Lodge      | B8        | 37,000                            | 37,000         | 37,000         | 37,000         | 37,000         | 37,000         | 37,000         | 37,000         | 37,000         | 37,000         | 37,000         |
| Land north east of Bury Lodge      | B1        | 19,000                            | 19,000         | 19,000         | 19,000         | 19,000         | 19,000         | 19,000         | 19,000         | 19,000         | 19,000         | 19,000         |
| Chesterford Research Park          | B1        | 38,000                            | 38,000         | 38,000         | 38,000         | 38,000         | 38,000         | 38,000         | 38,000         | 38,000         | 38,000         | 38,000         |
| M11 Junction 9a East (Stump Cross) | B1 / B8   | 37,800                            | 0              | 0              | 0              | 84,000         | 0              | 0              | 0              | 0              | 0              | 0              |
| Elsenham                           | B1 / B8   | 8,666                             | 47,000         | 47,000         | 0              | 26,000         | 84,000         | 84,000         | 0              | 0              | 0              | 0              |
| North of A120, West of Gt. Dunmow  | B1 / B8   | 8,667                             | 17,250         | 0              | 17,250         | 26,000         | 75,000         | 0              | 75,000         | 0              | 17,250         | 17,250         |
| West of Braintree                  | B1 / B8   | 8,667                             | 0              | 14,250         | 14,250         | 26,000         | 0              | 75,000         | 75,000         | 0              | 14,250         | 14,250         |
| <b>Totals</b>                      |           | <b>217,800</b>                    | <b>218,250</b> | <b>215,250</b> | <b>185,500</b> | <b>316,000</b> | <b>313,000</b> | <b>313,000</b> | <b>304,000</b> | <b>154,000</b> | <b>185,500</b> | <b>185,500</b> |

- 5.3 Each new development in Uttlesford was given its own VISUM model zone, located and connected to the highway network at the appropriate location. Residential and employment sites were given separate zones.
- 5.4 The trip generation methodology applied for each development is explained in Technical Note 2 (TN2 Trip Rates & Generation).
- 5.5 Trip distribution for the Uttlesford development zones is based on the Census Journey to Work distribution used for the Reference Case, but with an enhancement to discount trips between new residential and new employment sites to prevent double counting trips between these origins and destinations. To achieve this, the outbound residential and inbound employment trip distributions were calculated separately and the residential to employment trips were reconciled to avoid double counting. In order to model these inter-development trips the Census distribution was extended to include development zones, weighted according to the number of dwellings or jobs in each zone. Existing zones outside Uttlesford were weighted in accordance with TEMPRO growth to represent the increased attractiveness of existing zones in 2033.
- 5.6 In the same way as the Reference Case, all the development scenario trips were assigned to the network using an 'All-or-Nothing' assignment for the same reasons as mentioned earlier.
- 5.7 AADT factors for the Reference Case and Development Scenarios were derived locally for each link based on survey data. Peak to AADT factors were calculated for each link and applied to the modelled peaks in order to estimate Development Scenario AADT flows.
- 5.8 The Base, Reference Case and individual Development Scenario AADTs were summed to obtain the forecast AADT flows for each Development Scenario. Individual link 'stress' was then calculated using the previously mentioned methodology. These 'stress' values were then plotted onto the highway network within the study area using GIS to produce network 'stress' plans.



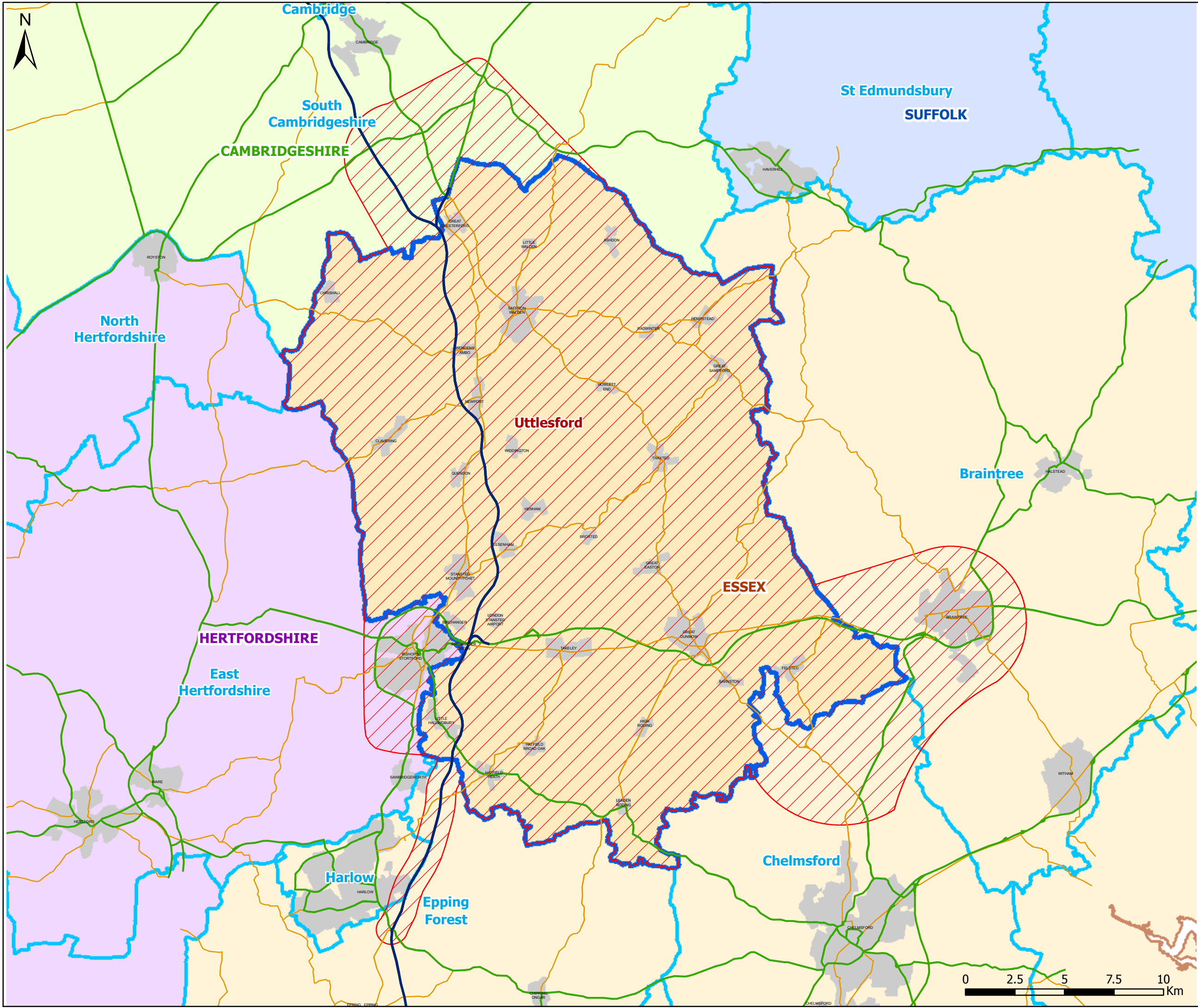


## 6 Presentation of Results

- 6.1 A summary of the results of the network 'stress' plan analysis can be found in **Appendix A**. The plans can be found in **Appendix B**. The summary compares the total length of links within the study area (in km) with forecast 'stress' levels that exceed the following thresholds; 75%, 90% and 100% 'stress'.
- 6.2 A 'stress' level of 100% (i.e. when the demand flow equals the CRF value) is the critical point at which link flows breakdown resulting in queuing and reduced throughput. At stress levels greater than 100% the link is operating over capacity and is likely to experience flow breakdown on a regular basis in the peak periods.
- 6.3 The comparison of the total length of links within the study area with forecast 'stress' levels that exceed 100% has therefore been used to identify where Local Plan development-related traffic is likely to require mitigation. This is discussed further in the Transport Study report.



## Figures



### Legend

- Study Area
- Main Urban Areas
- Uttlesford District
- Surrounding District Boundaries

### Counties

- Cambridgeshire
- Essex
- Hertfordshire
- Suffolk

### Road Network

- Motorway
- A Road
- B Road

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**Uttlesford District Council**

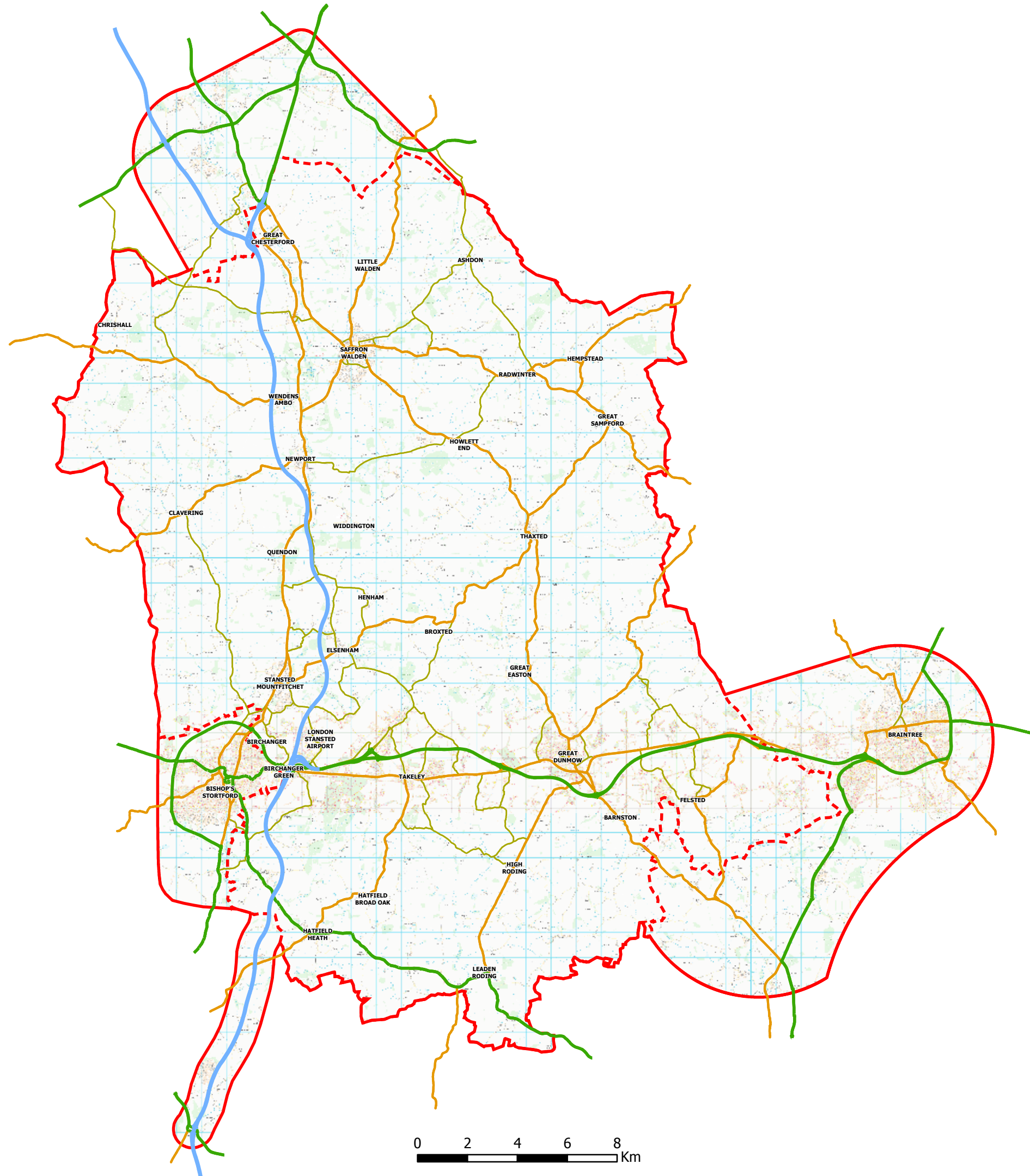
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Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 1  
 Study Area

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | JJC    | 07/12/15 | SB          | 07/12/15 | ASG      | 07/12/15 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 001         | -        |          |          |





### Legend

- Study Area
- Uttlesford District

### Road Class

- Motorway
- A Road
- B Road
- Minor Road

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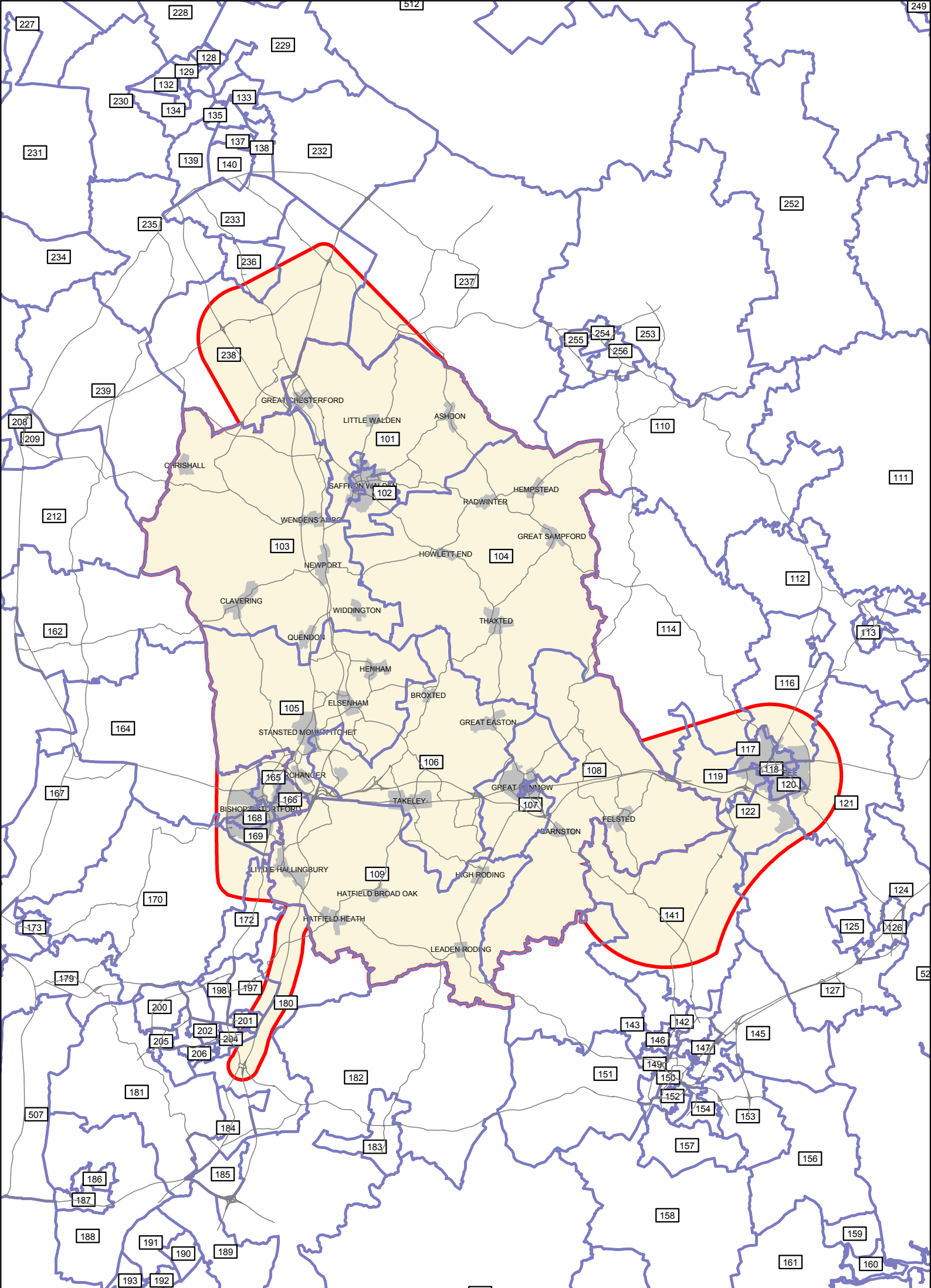


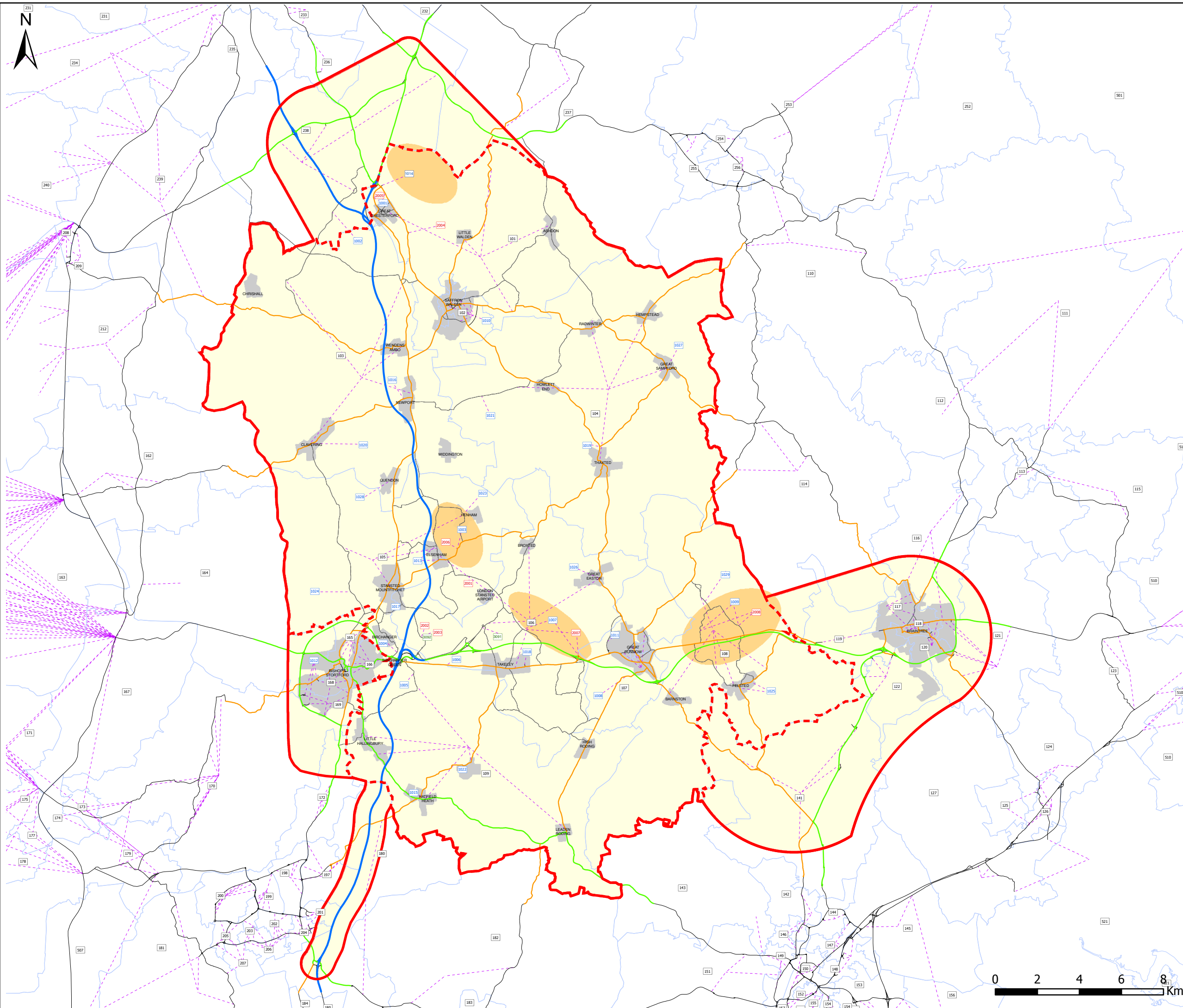
Project:  
 District-Wide Transport Study

Drawing Title:

**Figure 2**  
 Road Network

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| NTS         | JJC    | 02/02/16 | XXX         | 02/02/16 | XXX      | 02/02/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | Fig 2       | -        |          |          |





### Legend

- Study Area
- Utlesford District
- Main Urban Areas
- Motorway
- A Road
- B Road
- Minor Road
- Road network outside study area
- Zone Connectors
- Areas of Search
- abc MSOAs
- abc Employment Development Zones
- abc Residential Development Zones
- abc Stansted Airport Model Zones

New development zones with more than one connector share demand evenly to their connectors

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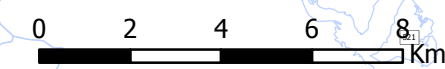


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Project:  
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Drawing Title:  
**Figure 4**  
 VISUM Model Zones & Loading Points

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | JJC    | 02/02/16 | XXX         | 02/02/16 | XXX      | 02/02/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 013         | -        |          |          |





## Appendix A – Results Summary

**Summary of 'Stress Plan' Results**

| Road Classification  | Total Link Length with greater than 75% Stress (km) |            |            |            |            |            |            |            |            |            |             |             |
|----------------------|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
|                      | Reference Case                                      | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 | Scenario 5 | Scenario 6 | Scenario 7 | Scenario 8 | Scenario 9 | Scenario 10 | Scenario 11 |
| Motorway             | 50.13   | 51.56      | 50.71      | 50.71      | 52.93      | 56.01      | 59.04      | 59.04      | 59.04      | 50.71      | 51.74       | 50.71       |
| A Road               | 58.75   | 64.57      | 63.93      | 66.83      | 66.69      | 72.39      | 71.77      | 71.48      | 71.53      | 64.24      | 67.12       | 64.49       |
| B Road               | 35.79   | 49.45      | 46.63      | 50.25      | 47.43      | 60.50      | 66.62      | 61.87      | 60.03      | 46.33      | 47.73       | 49.00       |
| Minor Road           | 0.87  | 4.97       | 6.08       | 5.51       | 5.51       | 11.42      | 18.20      | 12.13      | 16.05      | 5.57       | 5.41        | 3.71        |
| % Change to Ref Case | 100%  | 117%       | 115%       | 119%       | 119%       | 138%       | 148%       | 141%       | 142%       | 115%       | 118%        | 115%        |

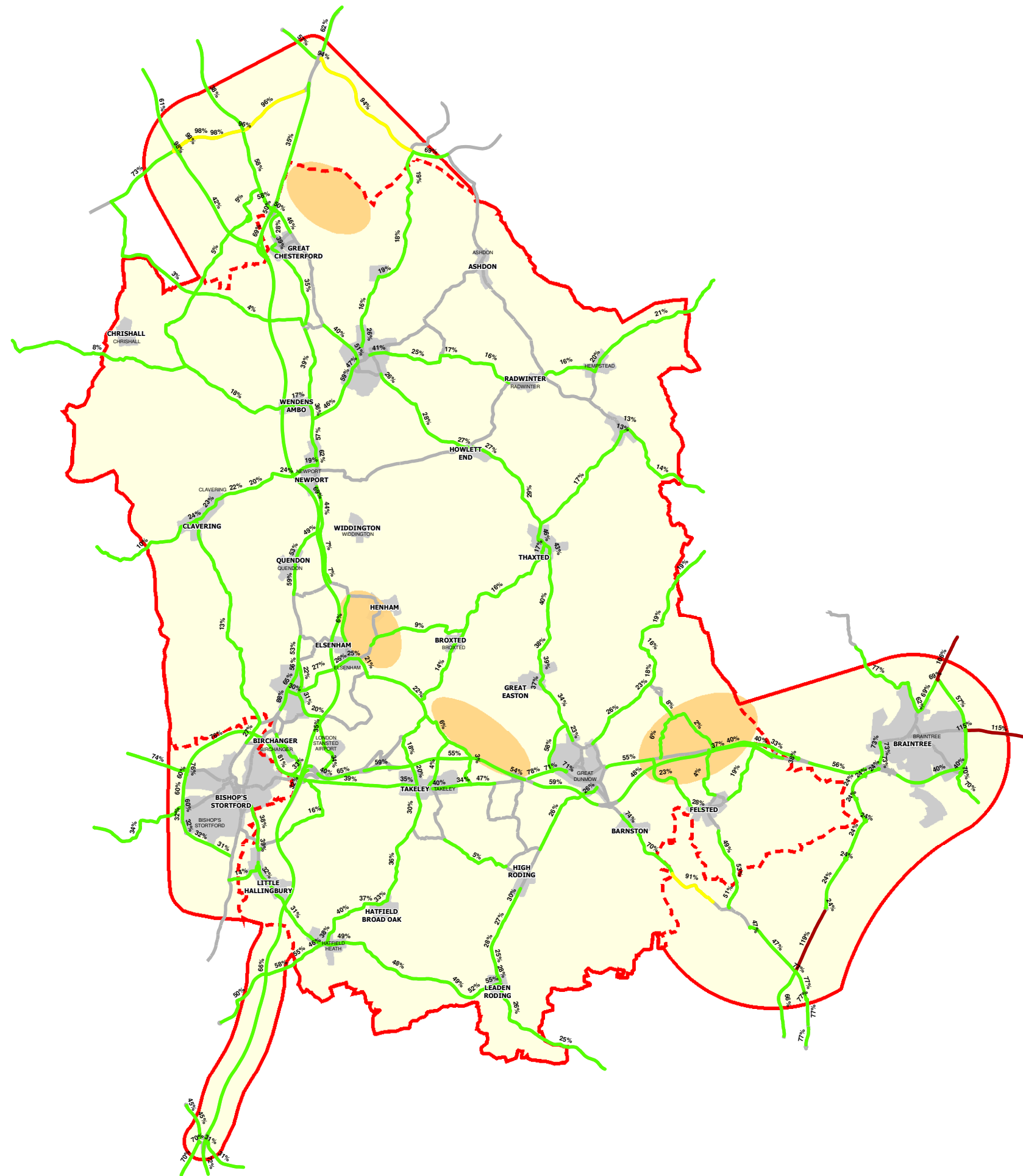
| Road Classification  | Total Link Length with greater than 90% Stress (km) |            |            |            |            |            |            |            |            |            |             |             |
|----------------------|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
|                      | Reference Case                                      | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 | Scenario 5 | Scenario 6 | Scenario 7 | Scenario 8 | Scenario 9 | Scenario 10 | Scenario 11 |
| Motorway             | 48.70   | 48.73      | 48.73      | 48.73      | 48.73      | 50.13      | 53.14      | 51.63      | 53.14      | 48.73      | 48.73       | 48.73       |
| A Road               | 40.33   | 53.35      | 48.99      | 53.49      | 53.49      | 61.92      | 62.08      | 61.14      | 61.20      | 49.07      | 49.07       | 50.23       |
| B Road               | 15.38   | 19.65      | 23.73      | 26.88      | 21.48      | 37.93      | 43.60      | 37.16      | 40.79      | 26.88      | 21.01       | 21.37       |
| Minor Road           | 0.87  | 1.77       | 4.73       | 5.28       | 1.42       | 6.62       | 12.97      | 7.50       | 12.97      | 0.87       | 0.87        | 0.87        |
| % Change to Ref Case | 100%  | 117%       | 120%       | 128%       | 119%       | 149%       | 163%       | 150%       | 160%       | 119%       | 114%        | 115%        |

| Road Classification  | Total Link Length with greater than 100% Stress (km) |            |            |            |            |            |            |            |            |            |             |             |
|----------------------|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
|                      | Reference Case                                       | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 | Scenario 5 | Scenario 6 | Scenario 7 | Scenario 8 | Scenario 9 | Scenario 10 | Scenario 11 |
| Motorway             | 26.90  | 48.70      | 48.70      | 48.70      | 48.70      | 48.73      | 53.14      | 50.13      | 53.14      | 48.70      | 48.70       | 48.70       |
| A Road               | 33.98  | 45.03      | 40.91      | 43.76      | 42.96      | 54.19      | 54.75      | 54.02      | 52.09      | 39.49      | 43.76       | 46.22       |
| B Road               | 7.03   | 8.48       | 12.53      | 11.88      | 8.48       | 30.20      | 37.81      | 30.05      | 33.46      | 11.47      | 9.43        | 9.53        |
| Minor Road           | 0.00   | 0.87       | 4.73       | 2.93       | 1.42       | 5.30       | 11.59      | 7.50       | 11.59      | 0.87       | 0.87        | 0.87        |
| % Change to Ref Case | 100%   | 152%       | 157%       | 158%       | 150%       | 204%       | 232%       | 209%       | 221%       | 148%       | 151%        | 155%        |





## Appendix B – Network 'Stress' Plans



### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### 2016 Base Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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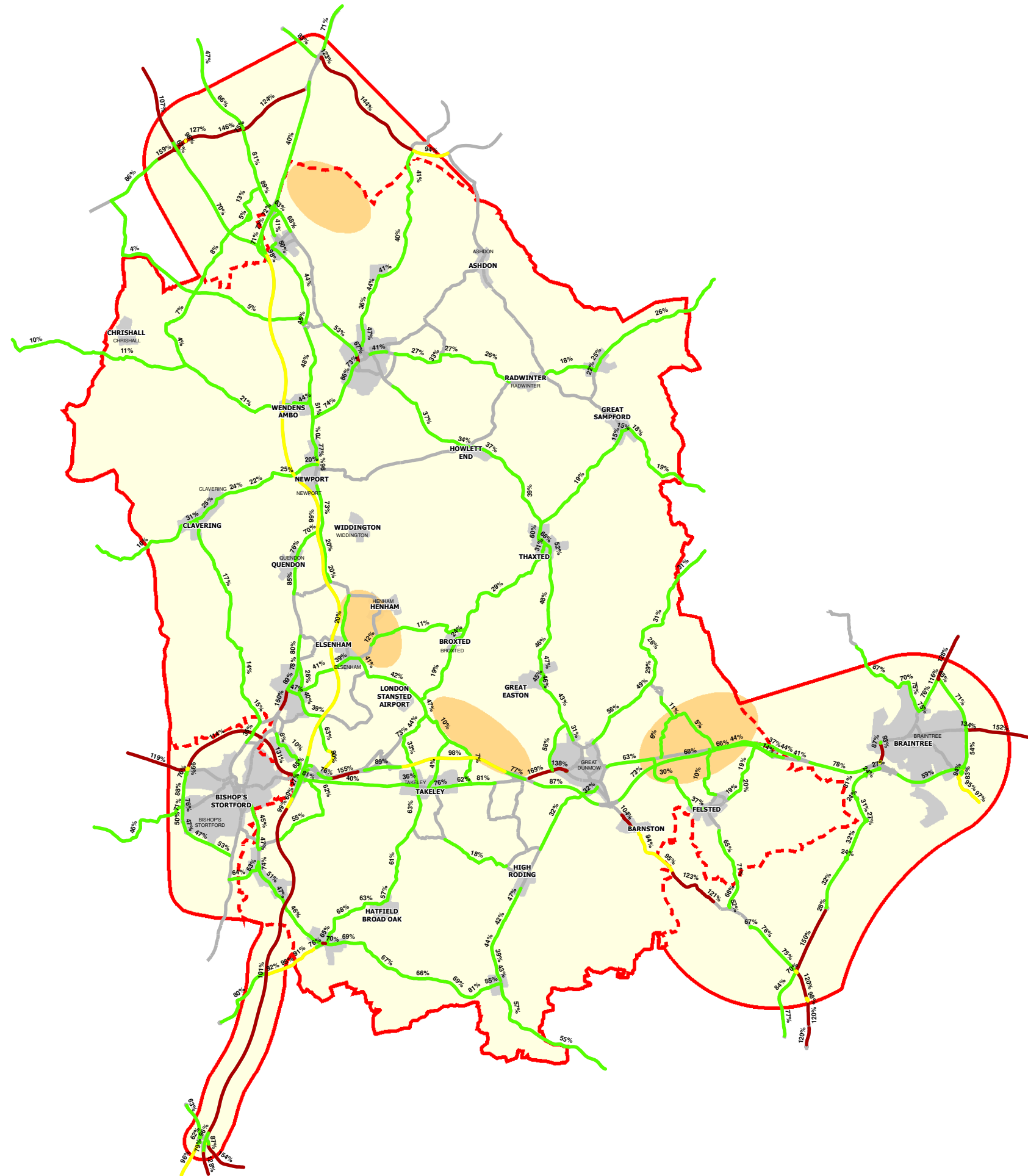


Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 8  
 2016 Base Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
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| A081175-47  | 35     | 18       | 008         | -        |          |          |





### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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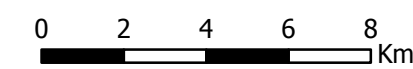
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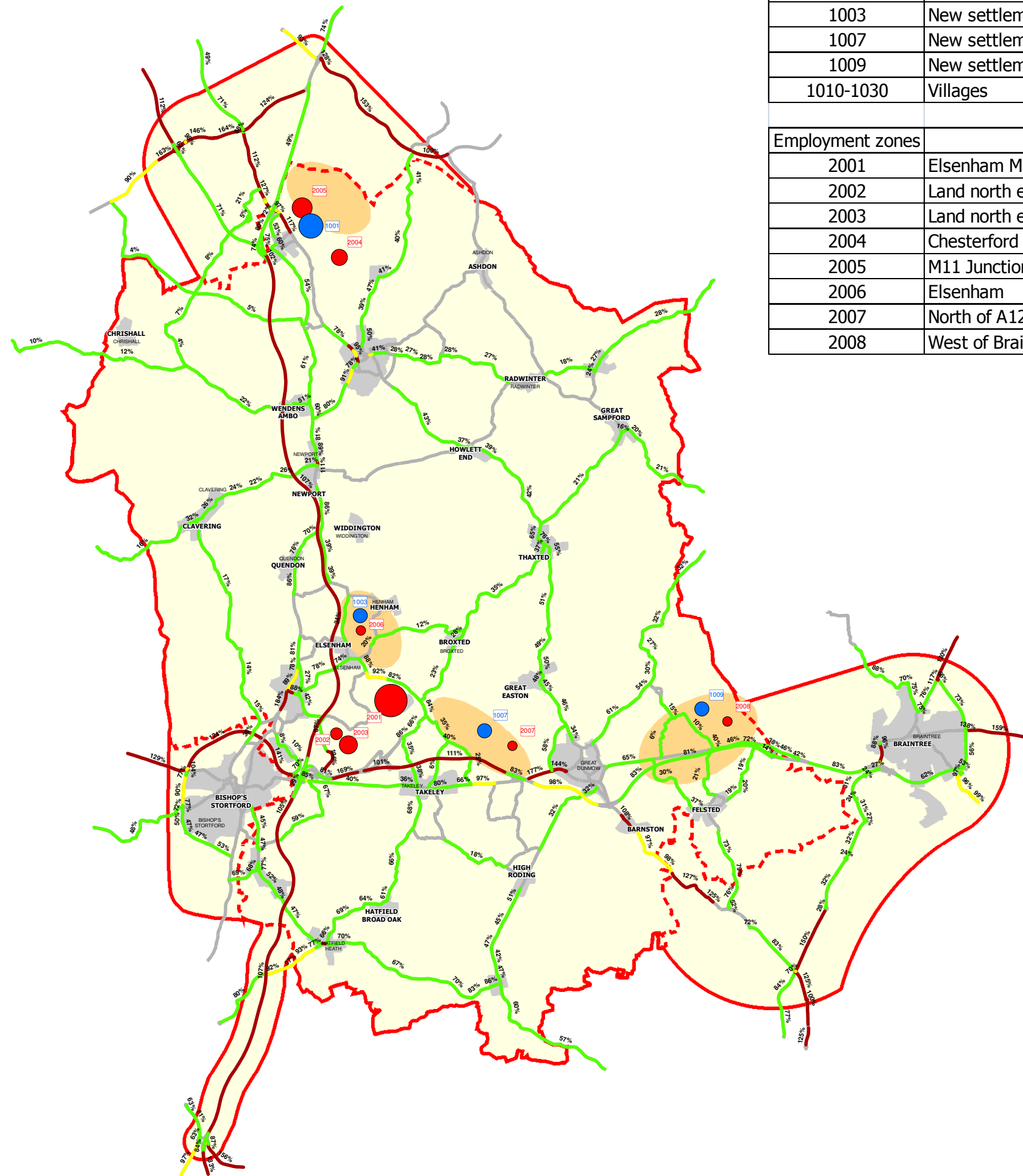


Project:  
 District-Wide Transport Study

Drawing Title:  
**Figure 14**  
 2033 Reference Case Network Stress  
 (No Local Plan Growth)

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. |          | Revision |          |
| A081175-47  | 35     | 18       | 014         |          | -        |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 2250      |
| 1003              | New settlement near Elsenham           | 750       |
| 1007              | New settlement west of Gt. Dunmow      | 750       |
| 1009              | New settlement west of Braintree       | 750       |
| 1010-1030         | Villages                               | 0         |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 1536 |
| 2006             | Elsenham                           | 352  |
| 2007             | North of A120, West of Gt. Dunmow  | 352  |
| 2008             | West of Braintree                  | 352  |

### Legend

- Study Area
  - Uttlesford District
  - Main Urban Areas
  - Areas of Search
- New Development**
- Residential
  - Employment
- Network Stress**
- No flow data
  - Under 90%
  - 90% - 100%
  - 100% and Greater

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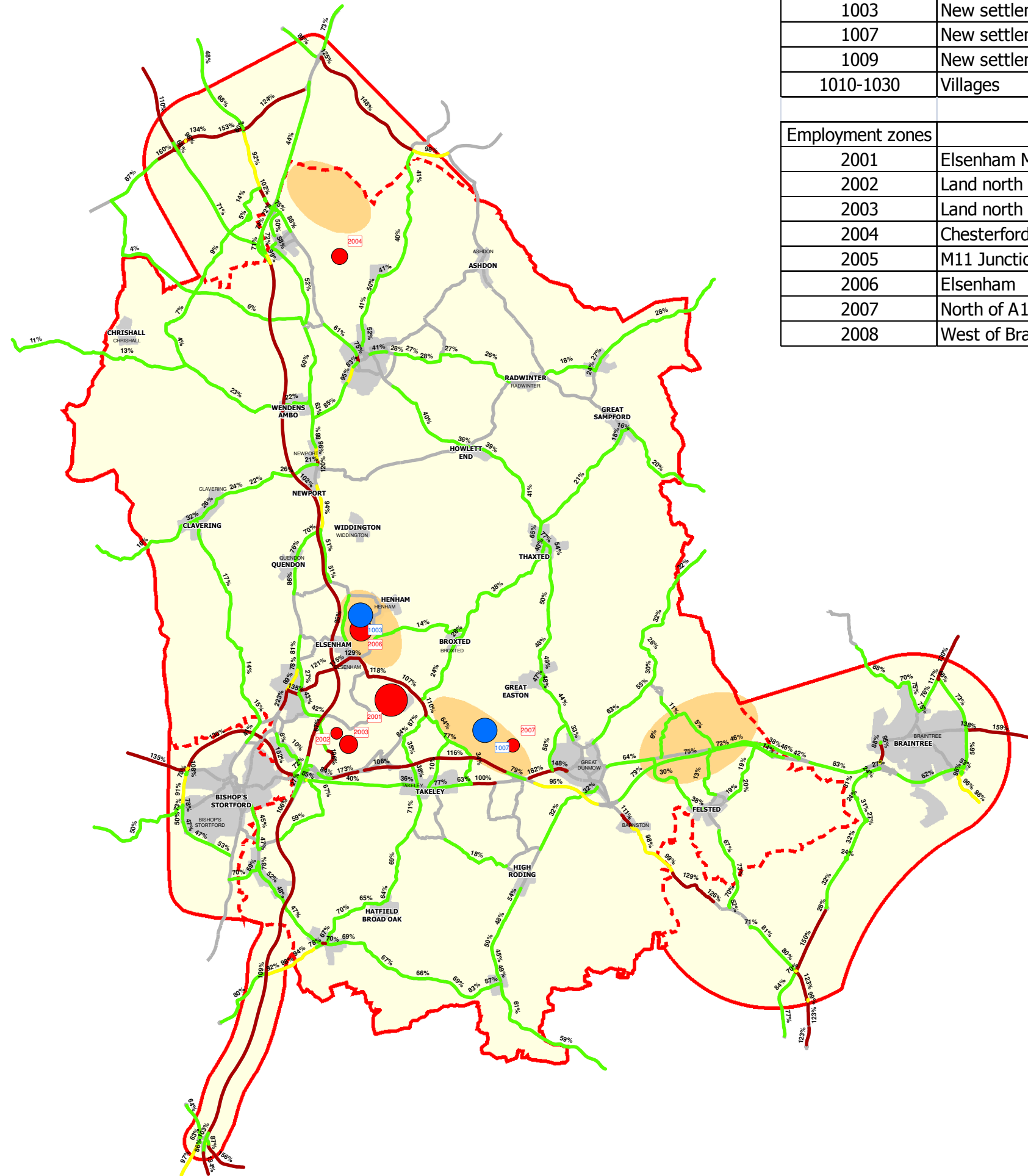


Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 15  
 Scenario 1 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 015         | -        |          |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 0         |
| 1003              | New settlement near Elsenham           | 2250      |
| 1007              | New settlement west of Gt. Dunmow      | 2250      |
| 1009              | New settlement west of Braintree       | 0         |
| 1010-1030         | Villages                               | 0         |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 0    |
| 2006             | Elsenham                           | 1910 |
| 2007             | North of A120, West of Gt. Dunmow  | 701  |
| 2008             | West of Braintree                  | 0    |

### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### New Development

- Residential
- Employment

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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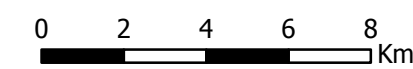
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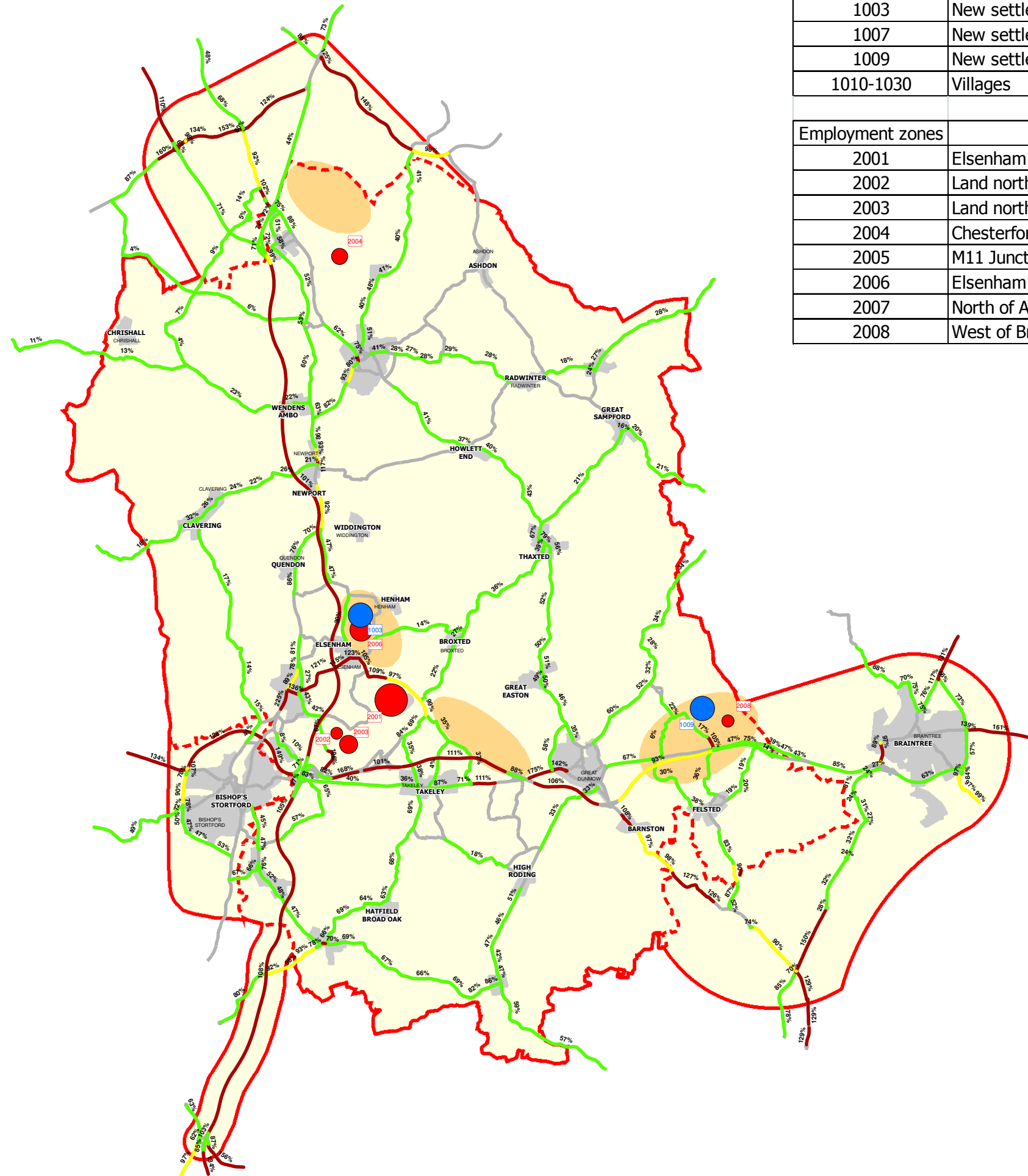


Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 16  
 Scenario 2 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 016         | -        |          |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 0         |
| 1003              | New settlement near Elsenham           | 2250      |
| 1007              | New settlement west of Gt. Dunmow      | 0         |
| 1009              | New settlement west of Braintree       | 2250      |
| 1010-1030         | Villages                               | 0         |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 0    |
| 2006             | Elsenham                           | 1910 |
| 2007             | North of A120, West of Gt. Dunmow  | 0    |
| 2008             | West of Braintree                  | 579  |

### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### New Development

- Residential
- Employment

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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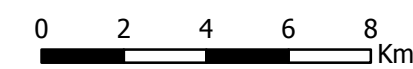
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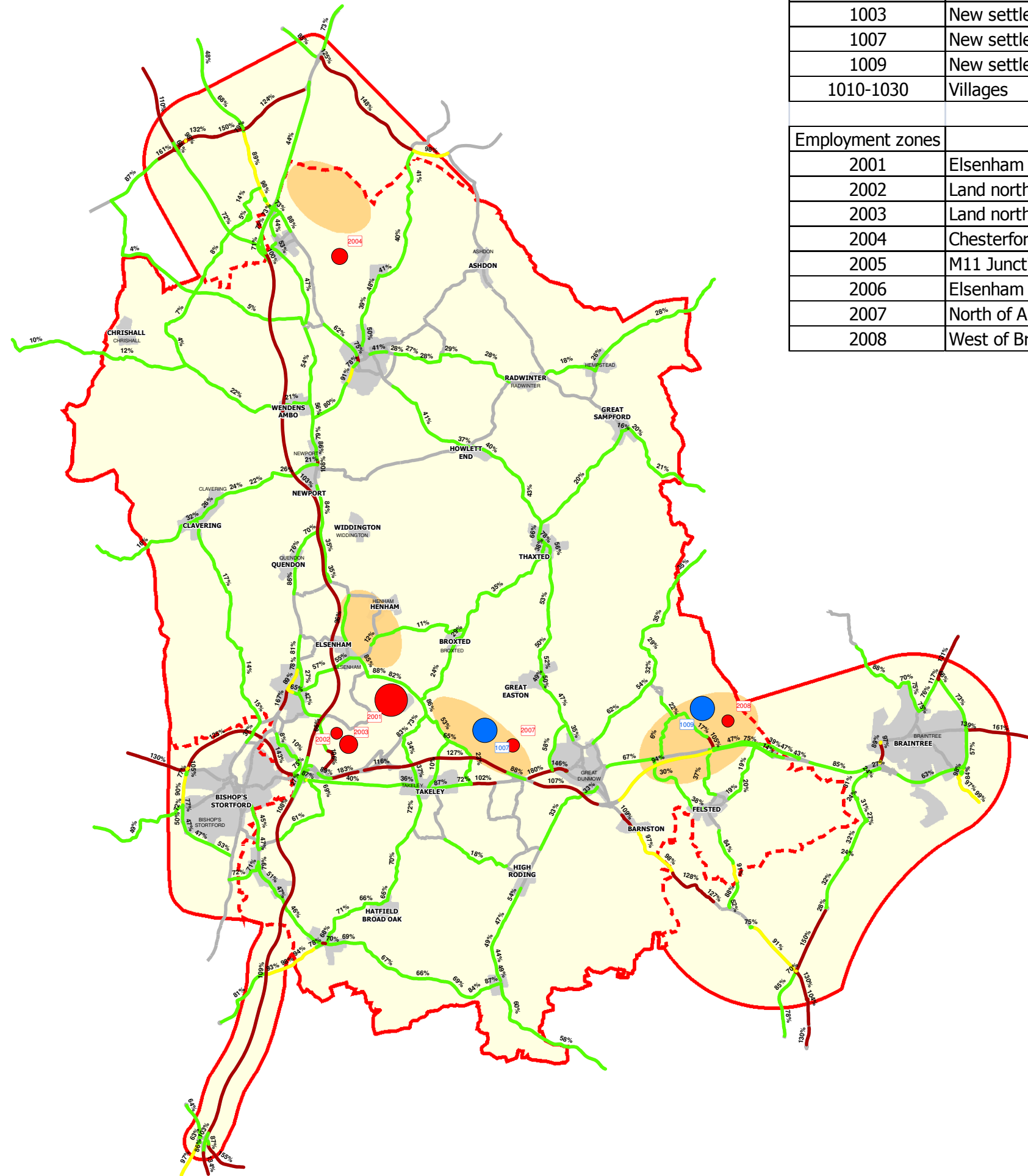


Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 17  
 Scenario 3 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 017         | -        |          |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 0         |
| 1003              | New settlement near Elsenham           | 0         |
| 1007              | New settlement west of Gt. Dunmow      | 2250      |
| 1009              | New settlement west of Braintree       | 2250      |
| 1010-1030         | Villages                               | 0         |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 0    |
| 2006             | Elsenham                           | 0    |
| 2007             | North of A120, West of Gt. Dunmow  | 701  |
| 2008             | West of Braintree                  | 579  |

### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### New Development

- Residential
- Employment

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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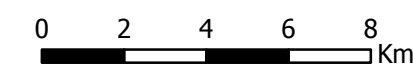
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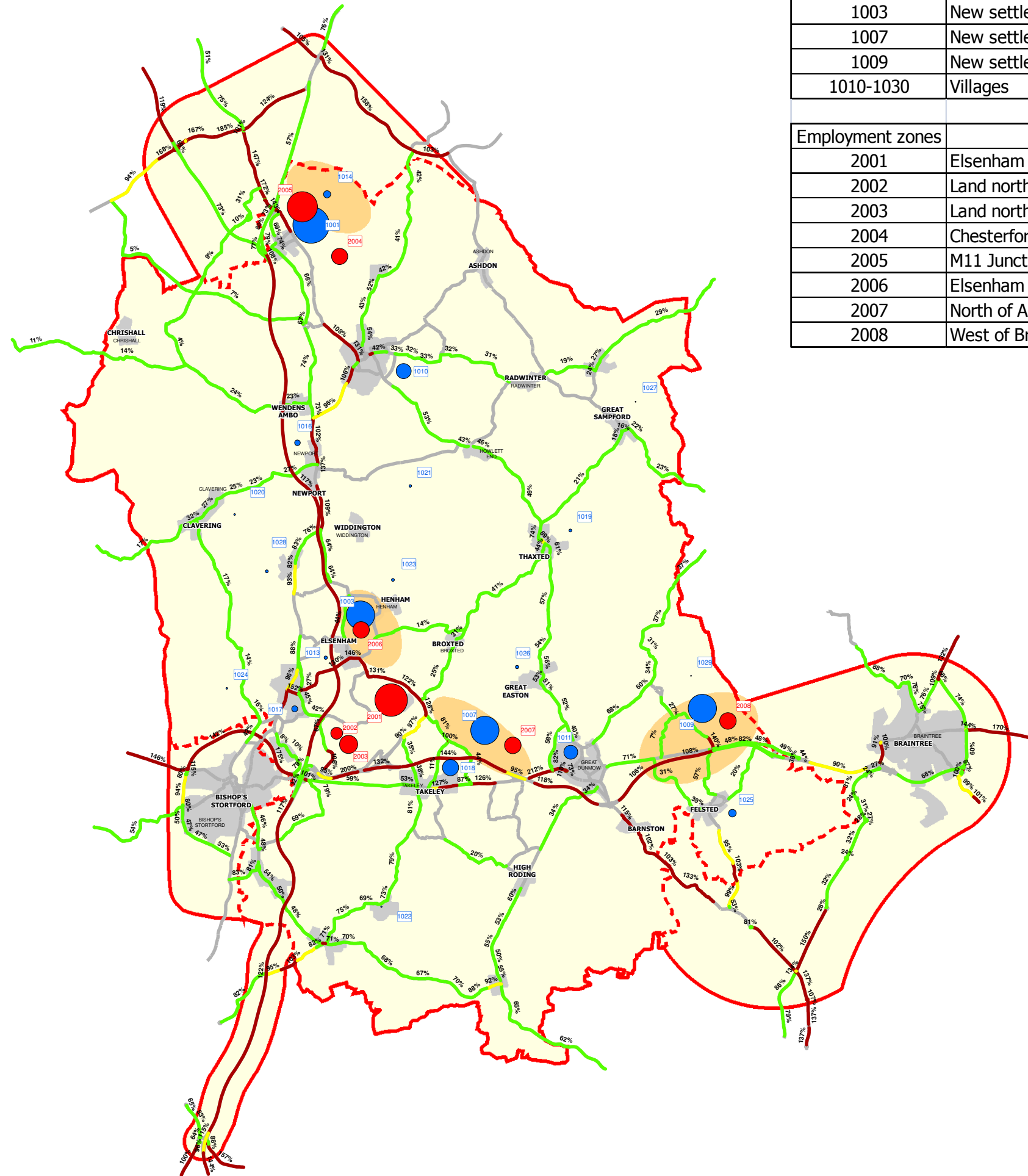
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Drawing Title:  
**Figure 18**  
 Scenario 4 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
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| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 018         | -        |          |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 5000      |
| 1003              | New settlement near Elsenham           | 3000      |
| 1007              | New settlement west of Gt. Dunmow      | 3000      |
| 1009              | New settlement west of Braintree       | 3000      |
| 1010-1030         | Villages                               | 3500      |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 3414 |
| 2006             | Elsenham                           | 1057 |
| 2007             | North of A120, West of Gt. Dunmow  | 1057 |
| 2008             | West of Braintree                  | 1057 |

### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### New Development

- Residential
- Employment

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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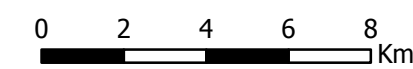
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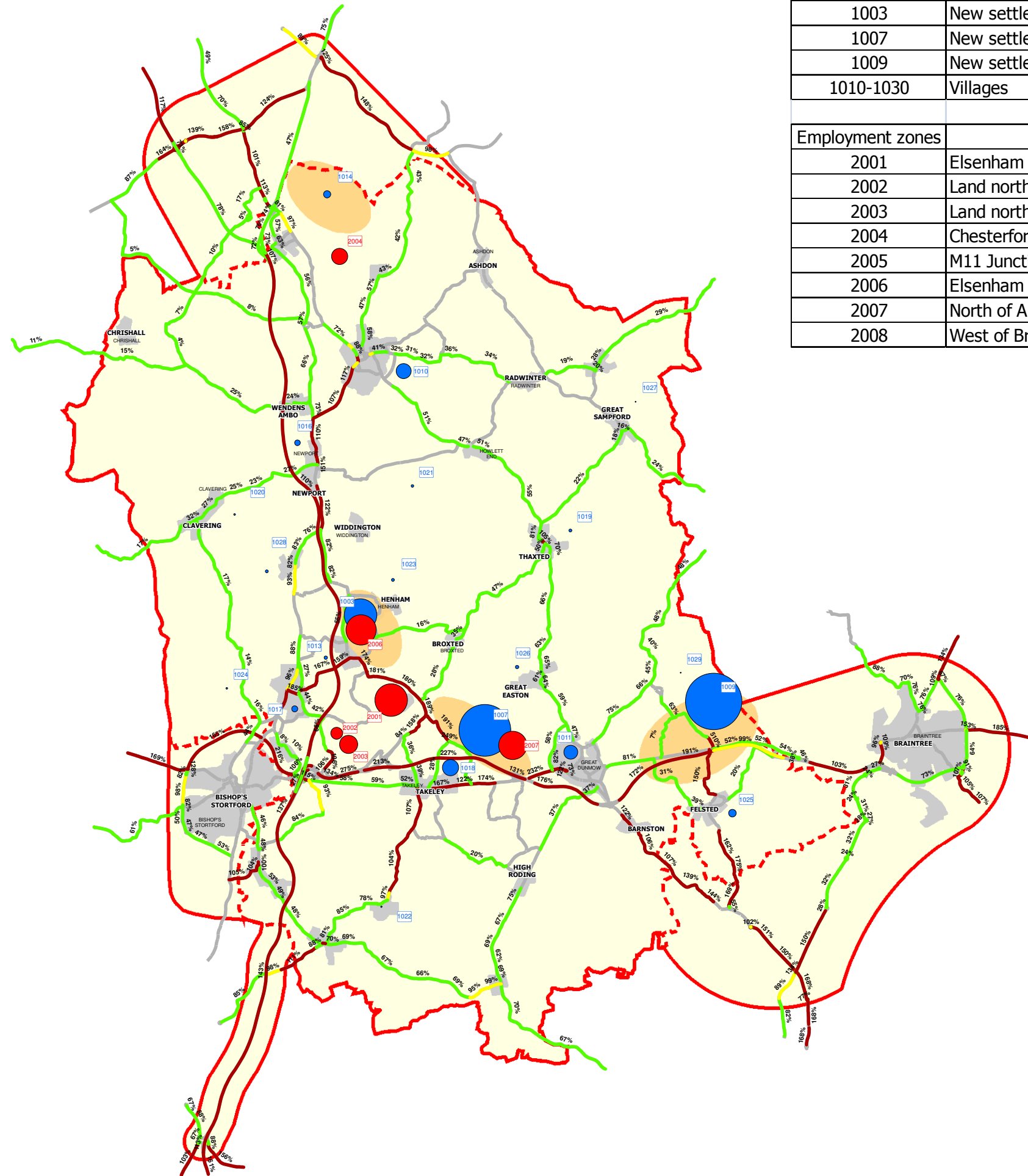
Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 19  
 Scenario 5 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 019         | -        |          |          |







| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 0         |
| 1003              | New settlement near Elsenham           | 4000      |
| 1007              | New settlement west of Gt. Dunmow      | 10000     |
| 1009              | New settlement west of Braintree       | 12000     |
| 1010-1030         | Villages                               | 3500      |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 0    |
| 2006             | Elsenham                           | 3414 |
| 2007             | North of A120, West of Gt. Dunmow  | 3048 |
| 2008             | West of Braintree                  | 0    |

### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### New Development

- Residential
- Employment

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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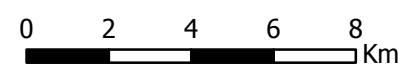
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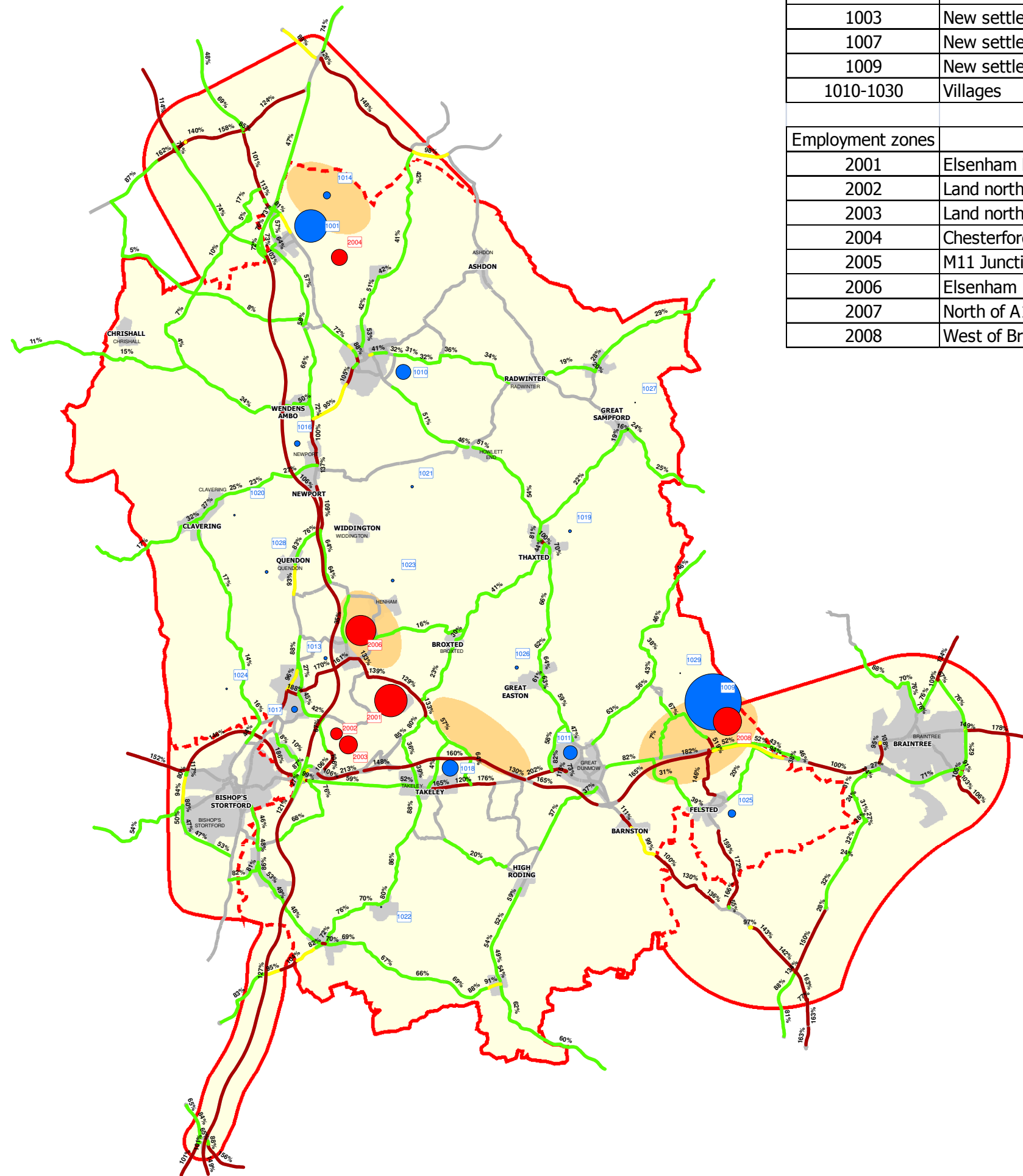


Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 20  
 Scenario 6 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 020         | -        |          |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 4000      |
| 1003              | New settlement near Elsenham           | 0         |
| 1007              | New settlement west of Gt. Dunmow      | 0         |
| 1009              | New settlement west of Braintree       | 12000     |
| 1010-1030         | Villages                               | 3500      |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 0    |
| 2006             | Elsenham                           | 3414 |
| 2007             | North of A120, West of Gt. Dunmow  | 0    |
| 2008             | West of Braintree                  | 3048 |

### Legend

- Study Area
  - Uttlesford District
  - Main Urban Areas
  - Areas of Search
- New Development**
- Residential
  - Employment
- Network Stress**
- No flow data
  - Under 90%
  - 90% - 100%
  - 100% and Greater

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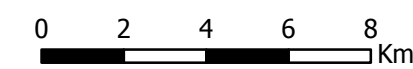
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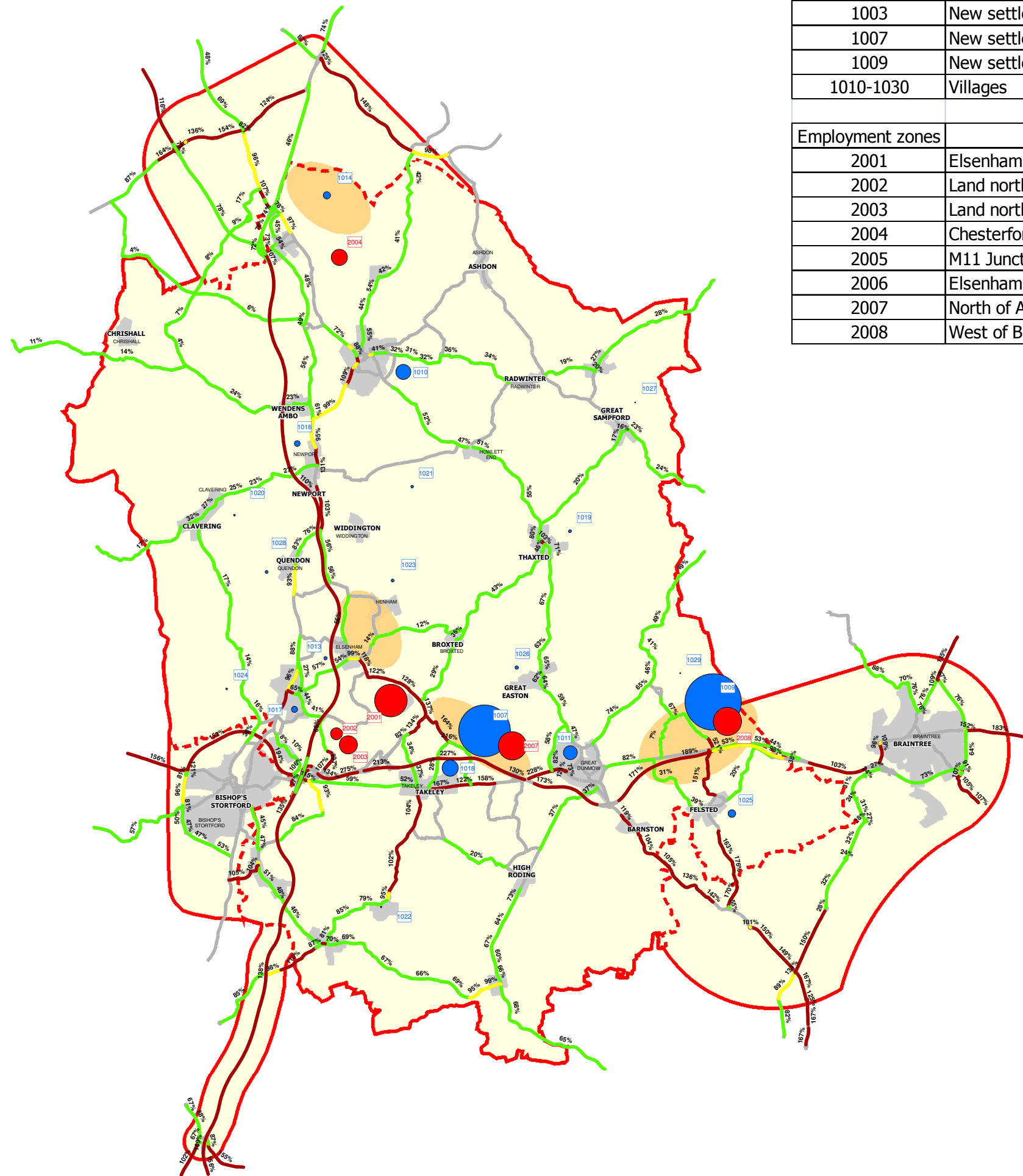


Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 21  
 Scenario 7 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 021         | -        |          |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 0         |
| 1003              | New settlement near Elsenham           | 0         |
| 1007              | New settlement west of Gt. Dunmow      | 10000     |
| 1009              | New settlement west of Braintree       | 12000     |
| 1010-1030         | Villages                               | 3500      |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 0    |
| 2006             | Elsenham                           | 0    |
| 2007             | North of A120, West of Gt. Dunmow  | 3048 |
| 2008             | West of Braintree                  | 3048 |

### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### New Development

- Residential
- Employment

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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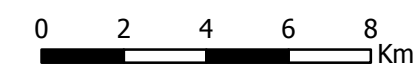
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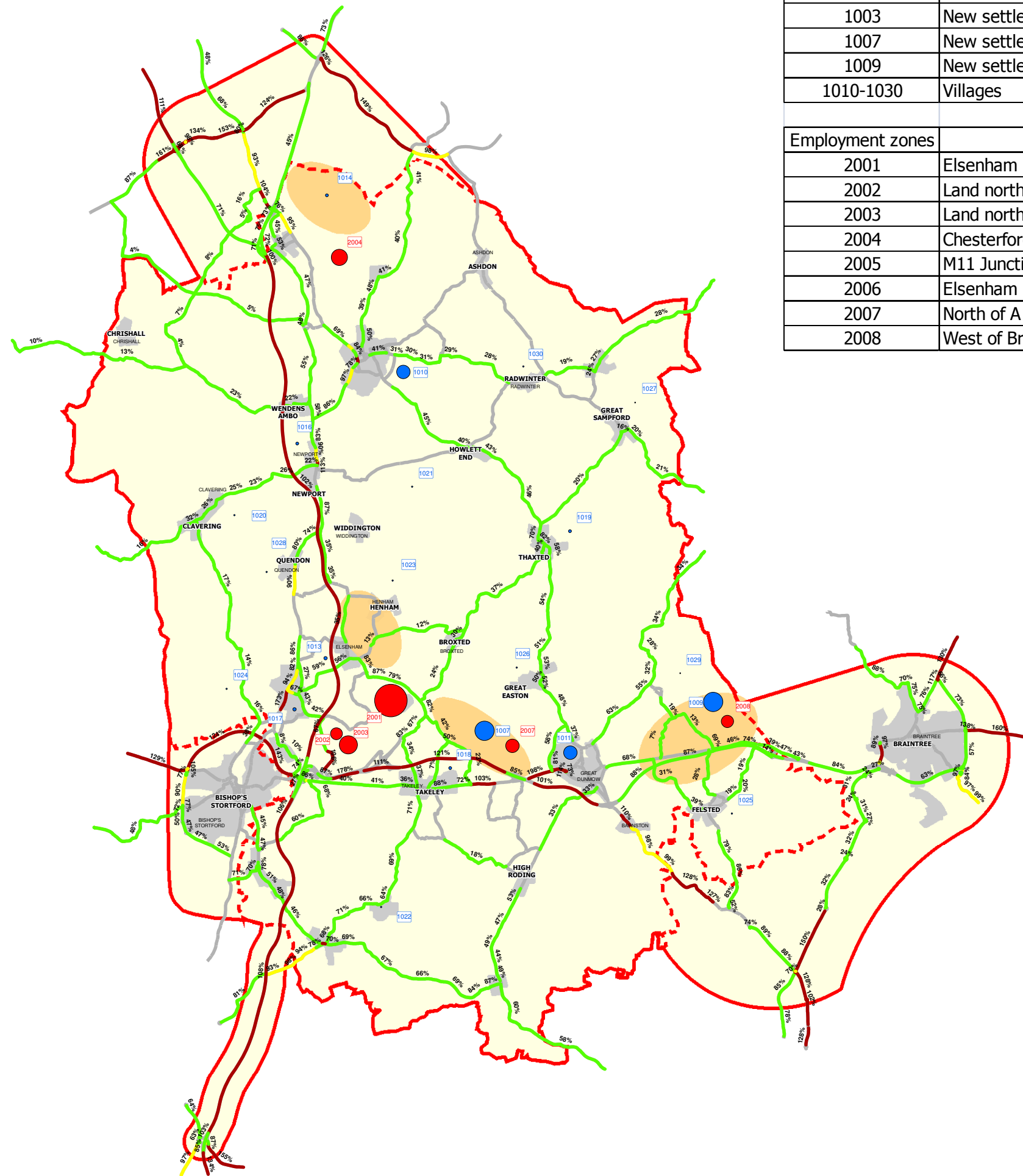
Project:  
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Drawing Title:  
 Figure 22  
 Scenario 8 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 022         | -        |          |          |







| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 0         |
| 1003              | New settlement near Elsenham           | 0         |
| 1007              | New settlement west of Gt. Dunmow      | 1400      |
| 1009              | New settlement west of Braintree       | 1400      |
| 1010-1030         | Villages                               | 1700      |

| Employment zones | Description                        | Jobs |
|------------------|------------------------------------|------|
| 2001             | Elsenham Meadows (TriSail)         | 4000 |
| 2002             | Land north east of Bury Lodge      | 541  |
| 2003             | Land north east of Bury Lodge      | 1267 |
| 2004             | Chesterford Research Park          | 1013 |
| 2005             | M11 Junction 9a East (Stump Cross) | 0    |
| 2006             | Elsenham                           | 0    |
| 2007             | North of A120, West of Gt. Dunmow  | 701  |
| 2008             | West of Braintree                  | 579  |

### Legend

- Study Area
- Uttlesford District
- Main Urban Areas
- Areas of Search

### New Development

- Residential
- Employment

### Network Stress

- No flow data
- Under 90%
- 90% - 100%
- 100% and Greater

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| REV | DESCRIPTION | BY | CHK | APP | DATE |
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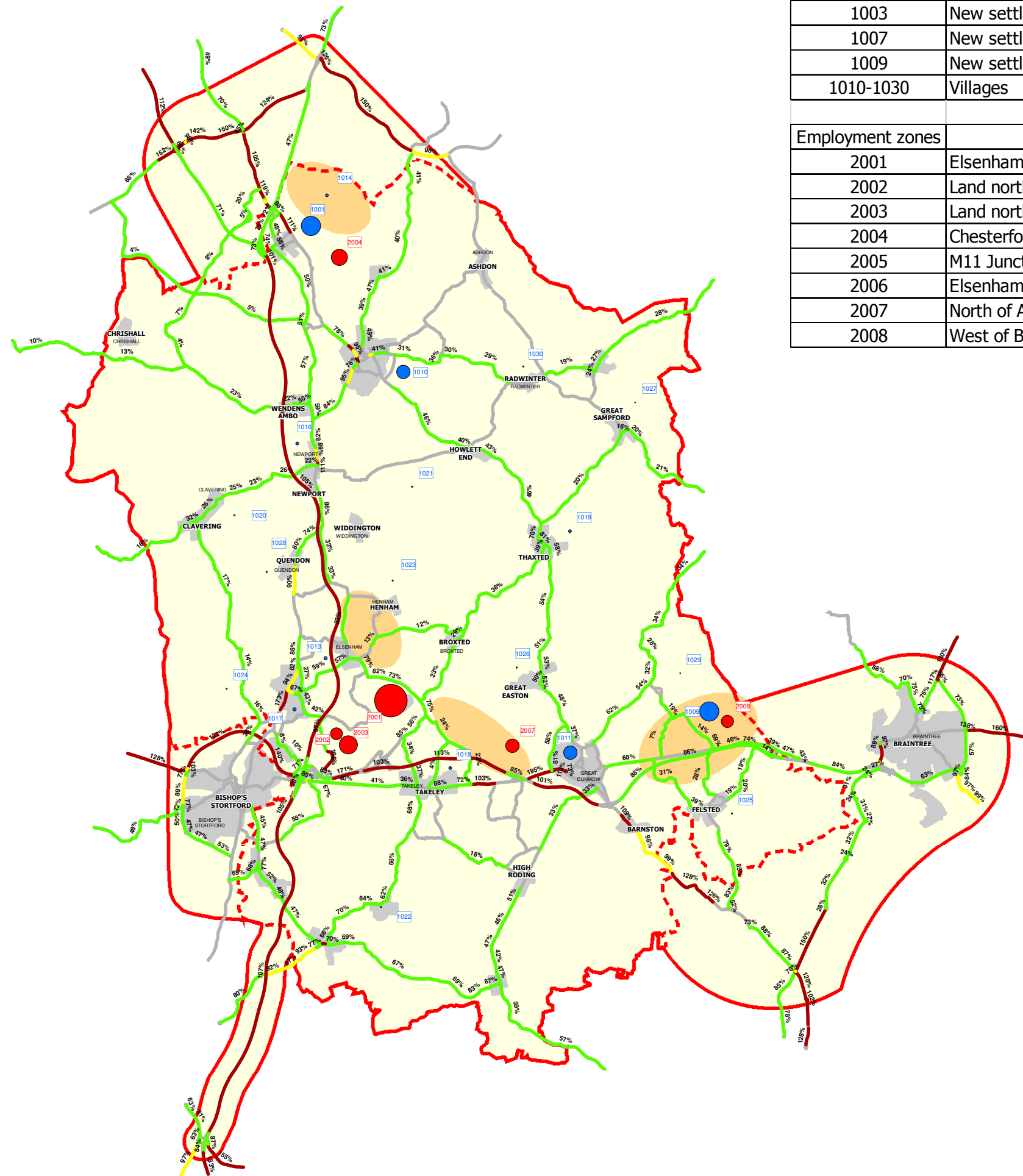
Project:  
 District-Wide Transport Study

Drawing Title:

Figure 24  
 Scenario 10 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 024         | -        |          |          |





| Residential zones | Description                            | Dwellings |
|-------------------|--|-----------|
| 1001              | New settlement east of M11 Junction 9a | 1400      |
| 1003              | New settlement near Elsenham           | 0         |
| 1007              | New settlement west of Gt. Dunmow      | 0         |
| 1009              | New settlement west of Braintree       | 1400      |
| 1010-1030         | Villages                               | 1700      |
| Employment zones  | Description                            | Jobs      |
| 2001              | Elsenham Meadows (TriSail)             | 4000      |
| 2002              | Land north east of Bury Lodge          | 541       |
| 2003              | Land north east of Bury Lodge          | 1267      |
| 2004              | Chesterford Research Park              | 1013      |
| 2005              | M11 Junction 9a East (Stump Cross)     | 0         |
| 2006              | Elsenham                               | 0         |
| 2007              | North of A120, West of Gt. Dunmow      | 701       |
| 2008              | West of Braintree                      | 579       |

### Legend

- Study Area
  - Uttlesford District
  - Main Urban Areas
  - Areas of Search
- #### New Development
- Residential
  - Employment
- #### Network Stress
- No flow data
  - Under 90%
  - 90% - 100%
  - 100% and Greater

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| REV | DESCRIPTION | BY | CHK | APP | DATE |
|-----|-------------|----|-----|-----|------|
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Project:  
 District-Wide Transport Study

Drawing Title:  
 Figure 25  
 Scenario 11 - Network Stress

| Scale @ A3  | Drawn  | Date     | Checked     | Date     | Approved | Date     |
|-------------|--------|----------|-------------|----------|----------|----------|
| NTS         | PT     | 25/07/16 | JJC         | 25/07/16 | ASG      | 25/07/16 |
| Project No. | Office | Type     | Drawing No. | Revision |          |          |
| A081175-47  | 35     | 18       | 025         | -        |          |          |

