

## Technical Note

Project No: ITB10353  
Project Title: Land East of Newgate Lane East, Fareham  
Title: HCC Response  
Ref: TW/GT/ITB10353-019a  
Date: 23 June 2022

### **SECTION 1 Introduction**

- 1.1 i-Transport LLP is appointed by Miller Homes and Bargate Homes to provide highways and transport advice in relation to the proposed development on Land East of Newgate Lane East, Fareham.
- 1.2 A Transport Assessment (report ref: ITB10353-010) was prepared to accompany the planning application (application ref: P/22/0165/OA).
- 1.3 Hampshire County Council (HCC) (as local highway authority) provided its response to the application in April 2022 recommending refusal.
- 1.4 The application has subsequently been appealed and Fareham Borough Council (FBC) has subsequently confirmed that, had it determined the application, it would have refused the application, including in relation to transport matters broadly in line with the HCC recommendation.
- 1.5 In providing its recommendation, HCC identified that it may be possible that the proposed Reasons for Refusal could be overcome following the receipt of additional information.
- 1.6 This Technical Note (TN) has been prepared to address some of the HCC comments which relate directly to the assessment scenarios tested in the TA. Agreement is sought with HCC on these parameters in advance of the production of further modelling assessment and the information requested in order that this can be provided on an agreed basis.
- 1.7 In particular this TN provides information relating to:
  - Development traffic assignment, principally considering the assignment of traffic flows to destinations west of Fareham and the use of the Stubbington Bypass;
  - Pedestrian / cycle assignment, to consider routing to the Catchment Schools; and
  - Committed development traffic flows associated with the Welborne site.

## SECTION 2 Development Traffic Distribution

2.1.1 HCC raised various related comments on the proposed development traffic distribution and assignment models as part of its response. These comprised matters related to:

- Discrepancies between the raw Census destination data applied in the model
- Route choice for destinations west of Fareham for trips forecast to use the Stubbington Bypass
- Peak period journey distance and travel times which require to be considered in more detail and the assignment model refined.

2.1.2 These key points have been considered in further detail and are presented for agreement in this TN. The associated revised distribution and gravity model will be provided electronically to HCC.

### 2.2 Distribution and Gravity Model Raw Data

2.2.1 Within HCC’s response it is stated:

*“Regarding the employment trip distribution, both Gosport 001 and Fareham 013 mid-layer super output area (MSOA) data for residents from the 2011 Census has been used as requested during the pre-application discussions. However, discrepancies are noted in the destination data as not all of the destinations noted are at MSOA level.”*

2.2.2 The 2011 Census Journey to Work data from Nomis (official labour market statistics) was obtained and is presented at Mid-Layer Super Output Area (MSOA) level.

2.2.3 As part of the preparation of the distribution model, and in view of the large dataset and variation in destinations, the MSOAs ‘Places of Work’ are grouped into ‘Broad Destinations’ to assist with identifying the most appropriate route to assign development traffic on the local highway network.

2.2.4 **Image 2.1** provides an extract from the distribution and gravity model and the associated grouping.

**Image 2.1: Distribution and Gravity Model Broad Destinations Extract**

E02004737 : Fareham 011	Fareham
E02004738 : Fareham 012	Portchester
E02004739 : Fareham 013	Stubbington
E02004740 : Fareham 014	Stubbington
E02004741 : Gosport 001	Bridgemary

Source: Nomis / Consultant’s Work

2.2.5 In the example above, rather than assign all development traffic to Fareham to the north of the site, traffic is also assigned to Stubbington to the south-west which allows a more accurate estimation of development traffic routing.

2.2.6 This same process is followed for all MSOA areas for the datasets of both Gosport 001 and Fareham 013 to derive an appropriate traffic distribution.

2.2.7 **Appendix A** presents the model including the full Census Datasets (Raw Data) alongside the analysis to derive 'Broad Destinations' and demonstrates how this flows through to the assessments.

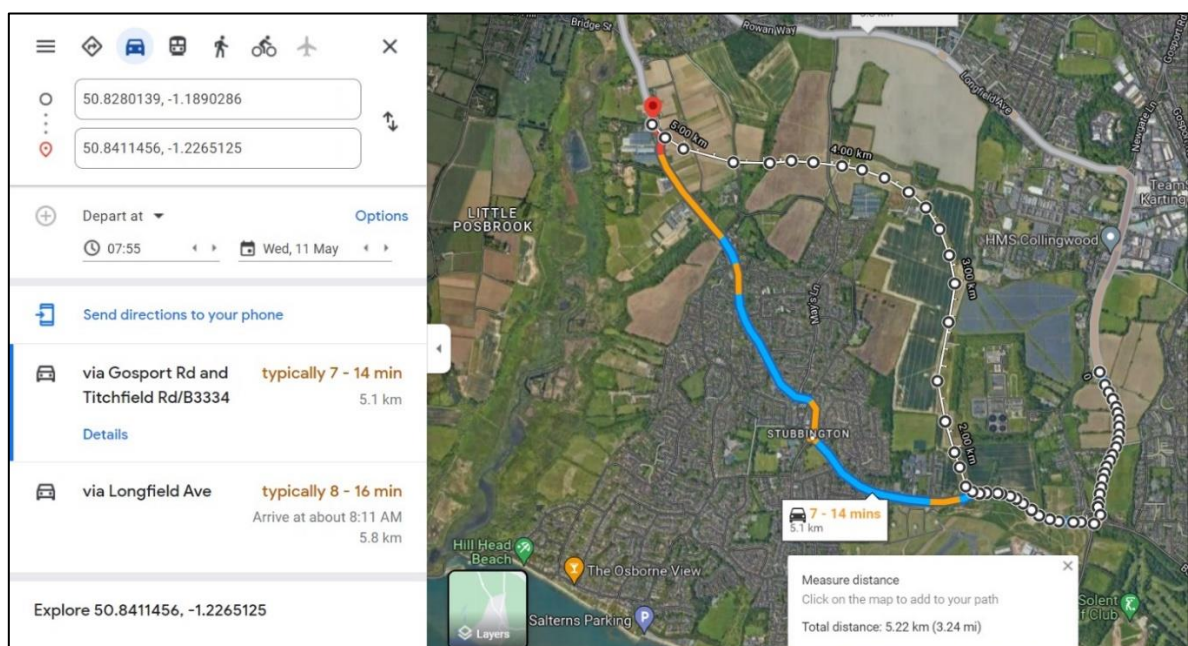
2.3 **Journey Time / Route Choice / Stubbington Bypass**

2.3.1 A meeting was held with HCC on 6<sup>th</sup> May 2022 to discuss HCC’s written response. HCC stated that whilst the Stubbington Bypass is close to the site, HCC consider routing to destinations west of Fareham / Gosport using the Stubbington Bypass to be longer in terms of distance and journey time. On this basis, HCC expect traffic routing north towards the A27 and M27 J11 to be the attractive option compared to the Bypass. This opinion is consistent with HCC’s Highways written response:

***“On some occasions, routing is via the Stubbington Bypass for destinations that are considered should route via the A27 and M27 north from the site accesses, given the more direct routing. This needs to be revisited.”***

2.3.2 At the time of preparing the TA and revised assessments, the Stubbington Bypass was not open, having opened to traffic in recent weeks. Therefore, an exercise was undertaken (prior to the opening) to measure the journey times routing via the Stubbington Bypass, along with the other key routes north from the site (i.e. the A27 and M27) to all destinations included within the distribution and gravity model. To calculate the expected journey times and distance via the Stubbington Bypass, the distance from the site to the most western point of the Bypass has been measured as 5.2km (**Image 2.2**).

**Image 2.2: Stubbington Bypass Routing**



Source: Google Maps

2.3.3 **Image 2.2** demonstrates the journey times via Stubbington generate an average journey time of circa 11 minutes and 5.1km. The HCC Stubbington Bypass Transport Assessment identified a journey time saving from Peel Common to M27 J9 of circa 3-3.5 minutes. On this basis, the average journey time identified in **Image 2.2** has been reduced to 8-minutes.

2.3.4 A journey time comparison has been undertaken to all the destinations identified to use the Stubbington Bypass as one of the route options. A summary of the journey time and distances to some key destinations is provided in **Table 2.1** and the full assessment is provided at **Appendix B**.

**Table 2.1: Stubbington Bypass Journey Time and Distance Comparison**

Destination	Distance / Time	Route via M27 J11	Route via Stubbington Bypass	Route via Longfield Avenue
Basingstoke	Distance (km)	73.1	71.5	70
	Time (mins)	62	66	64
Eastleigh	Distance (km)	27.2	25.6	24.0
	Time (mins)	34	36	34
Romsey	Distance (km)	39.2	38.2	36.2
	Time (mins)	45	45	44
Southampton	Distance (km)	30.3	28.7	27.2
	Time (mins)	43	45	41
Swanwick	Distance (km)	14.2	12.2	10.2
	Time (mins)	24	22	21
Titchfield	Distance (km)	N/A	6.7	6.7
	Time (mins)	N/A	13	14
Warsash	Distance (km)	N/A	11.3	10.9
	Time (mins)	N/A	20	20

Source: Google Maps

Note: All destinations are presented in the electronic version supplied to HCC.

2.3.5 **Table 2.1** demonstrates all routes, including via Stubbington Bypass, offer similar journey times and distances. Therefore, the Stubbington Bypass will provide an attractive and realistic route choice for future residents of the site (that is its purpose) and the Bypass has been kept as a route option within the distribution and gravity model.

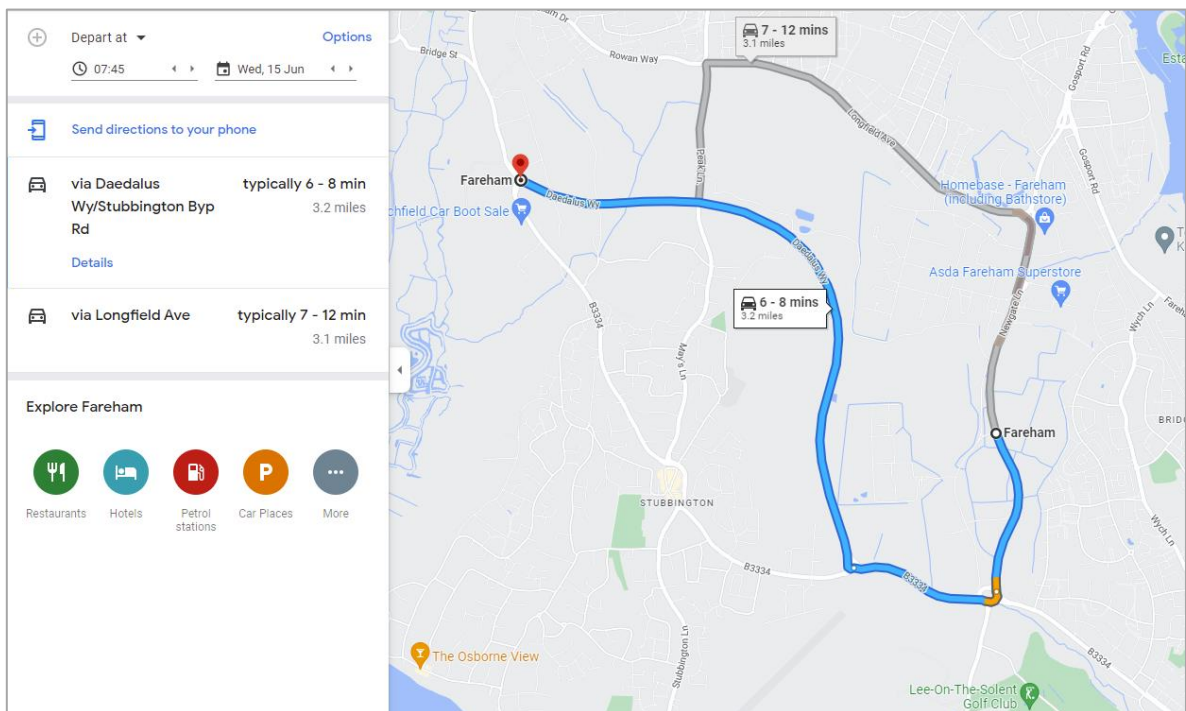
2.3.6 As all three routes offer a similar journey time and distance, pleasantness of the route will be a key factor when future residents consider which route to travel west towards the A27 / M27 i.e. reduced congestion, character and directness of the route. The Stubbington Bypass (now opened) offers a pleasant route for future residents in line with one of the objectives of the Bypass scheme as set out within HCC's Transport Assessment prepared for planning ref: P/15/0718/CC:

*“To provide a viable alternative route for traffic wishing to travel from the Gosport Peninsula westwards towards the M27 Junction 9, whilst avoiding heavily congested parts of the transport network”.*

**Sensitivity Testing with Stubbington Bypass Opened**

- 2.3.7 The assessment (**Appendix B**) assumed that the Stubbington Bypass would save 3 minutes compared to routing through Stubbington and would thereby offer comparable journey times to routes north.
- 2.3.8 Now that the Stubbington Bypass has been opened to traffic, this assumption can be validated.
- 2.3.9 The total peak hour journey time using the Bypass from the site access to the junction of Daedalus Way / Titchfield Road was assumed to be 8 minutes (11 minutes minus 3 minutes).
- 2.3.10 Assessment using Google Maps now that the Bypass is open (assuming a 07:45 weekday travel time) over the same route identifies a typical travel time of 6-8 minutes, so a median time of 7 minutes. This is an improvement on the assumed journey times in the assessments presented in Appendices A and B and confirms that traffic from the development site will utilise the Stubbington Bypass.

**Image 2.3 – Journey Times using Stubbington Bypass**



- 2.3.11 To demonstrate that this is the case, **Images 2.4-2.6** demonstrate the peak hour journey times between the site access and an example destination to the west (Eastleigh). This demonstrates that the journey times are entirely comparable. **Table 2.2** presents the results of the revised assessment now that Stubbington Bypass is open and operational and compares this to the earlier assumptions.

**Table 2.2 – Route comparison from Site Access to Eastleigh**

Destination	Time	Route via M27 J11	Route via Stubbington Bypass	Route via Longfield Avenue
Eastleigh	Original Assumption	34	36	34
	Revised Range	28-45	28-45	26-45
	Revised Median	37	37	36

2.3.12 The updated travel times continue to demonstrate that routing vis the bypass is comparable to the other route options and will be one choice available to residents.

**Image 2.4 – Journey Times to Eastleigh using Stubbington Bypass**

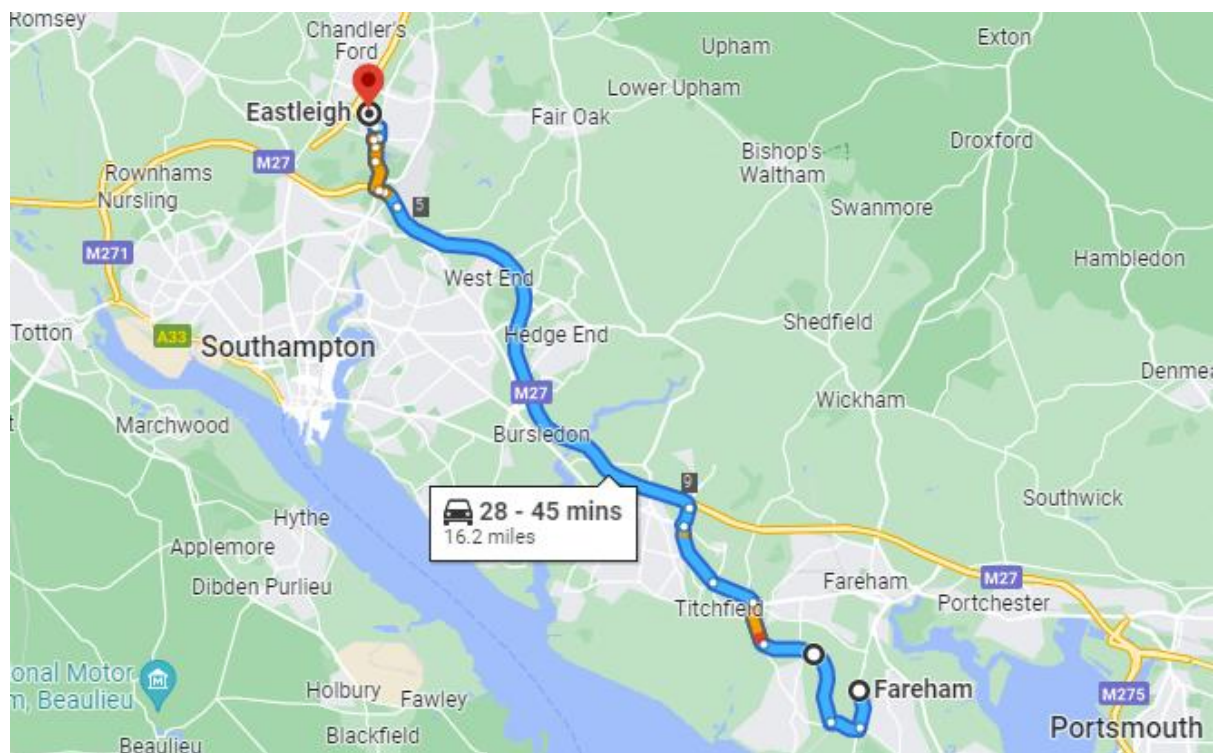


Image 2.5 – Journey Times to Eastleigh using Longfield Avenue

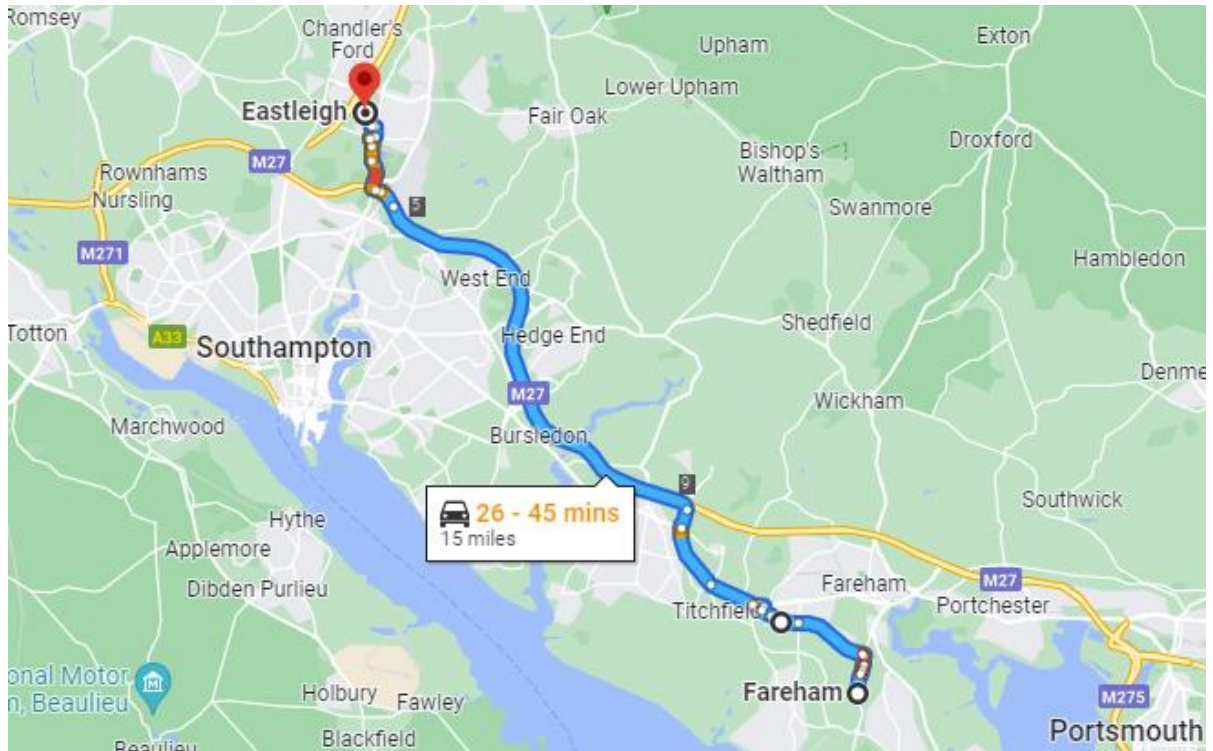
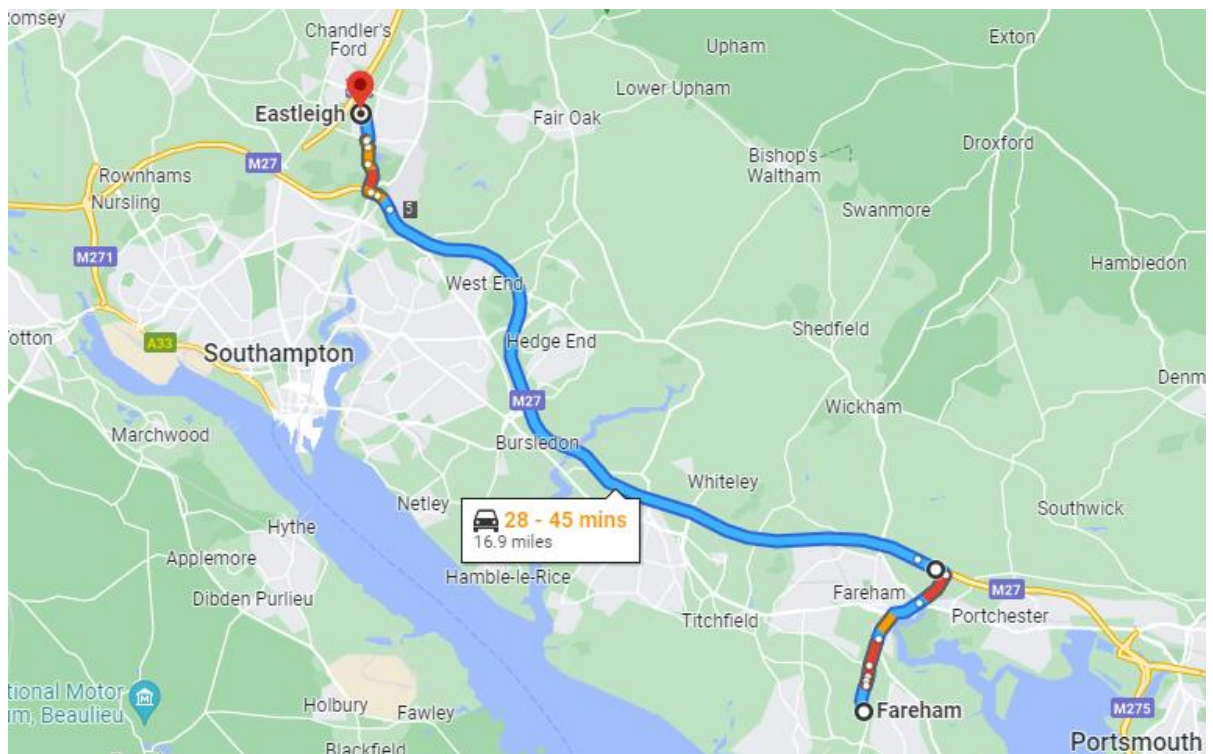


Image 2.6 – Journey Times to Eastleigh using M27 J11



### Revised Assignment Assumptions

2.3.13 As part of the journey distance and time comparison exercise, the proportions assigned to each route have been revisited based on the average journey time and distance.

2.3.14 A comparison of the proportions assigned to each route choice between the previously submitted distribution model (the TA) and the revised model (Appendix A) is provided in **Table 2.3**.

**Table 2.3: Route Choice Proportions Comparison**

Destination	Route Choice	Previously Submitted	Revisited
Basingstoke	Newgate Lane and M27 J11	5%	25%
	Stubington Bypass	55%	25%
	Longfield Avenue	40%	50%
Eastleigh	Newgate Lane and M27 J11	5%	25%
	Stubington Bypass	55%	25%
	Longfield Avenue	40%	50%
Romsey	Newgate Lane and M27 J11	5%	20%
	Stubington Bypass	55%	30%
	Longfield Avenue	40%	50%
Southampton	Newgate Lane and M27 J11	5%	15%
	Stubington Bypass	70%	25%
	Longfield Avenue	25%	60%
Swanwick	Newgate Lane and M27 J11	0%	10%
	Stubington Bypass	90%	40%
	Longfield Avenue	10%	50%
Titchfield	Newgate Lane and M27 J11	0%	0%
	Stubington Bypass	70%	60%
	Longfield Avenue	30%	40%
Warsash	Newgate Lane and M27 J11	0%	0%
	Stubington Bypass	70%	50%
	Longfield Avenue	30%	50%

Source: Google Maps / Consultant's Estimate

2.3.15 **Table 2.3** shows the revisited route choice proportions assign a higher percentage to routes north from the site and the same methodology has been replicated for all destinations identified.

2.3.16 **Table 2.4** provides a comparison summary table of the total proportions of development traffic being assigned along Newgate Lane East from the site as a result of these revised assumptions.



**Table 2.4: Total Proportions Comparison**

Link	Previous Model			Revisited Model			Total Difference
	Commuting	Non-Commuting	Total	Commuting	Non-Commuting	Total	
Newgate Lane East (North)	24.85%	13.91%	38.77%	31.09%	16.80%	47.88%	+9.11%
Newgate Lane East (South)	25.55%	35.69%	61.23%	19.31%	32.80%	52.12%	-9.11%
Total	50.40%	49.60%	100.00%	50.40%	49.60%	100.00%	0.00%

Source: Google Maps / Consultant's Estimate

2.3.17 **Table 2.4** shows with the revised routing / journey times and proportions assigned, the distribution of traffic is balanced between routing north and south from the site.

2.3.18 The revised distribution model now assigns most of the Commuting trips to the north of the site, which forms the majority of the Journey Purpose trips (circa 62%). Non-commuting trips have been assigned to destinations within a 20-minute journey time using the Gravity Model. Of these destinations, circa 63% of the destinations have only one route choice option to the south for example Bridgemary, Stubbington, Gosport, Rowner and Lee-on-the-Solent, which explains why the majority of these trips route south compared to the Commuting trips.

2.3.19 With all of HCC's comments considered, the revised distribution model is considered to best represent the expected distribution of development traffic.

## SECTION 3 Traffic Flow Diagrams

3.1 HCC noted that the Traffic Flow Diagrams did not reflect the detailed junction configuration at Speedfields Park (the roundabout incorporates a Bypass Lane) and that these did not include the Gosport Road / Palmerston Road junction, and Newgate Lane flyover.

3.2 The Traffic Flow diagram has been amended to include this greater level of detail and is provided at **Appendix C**. This has no impact on the wider assessments and does not impact on the traffic loading onto the network.

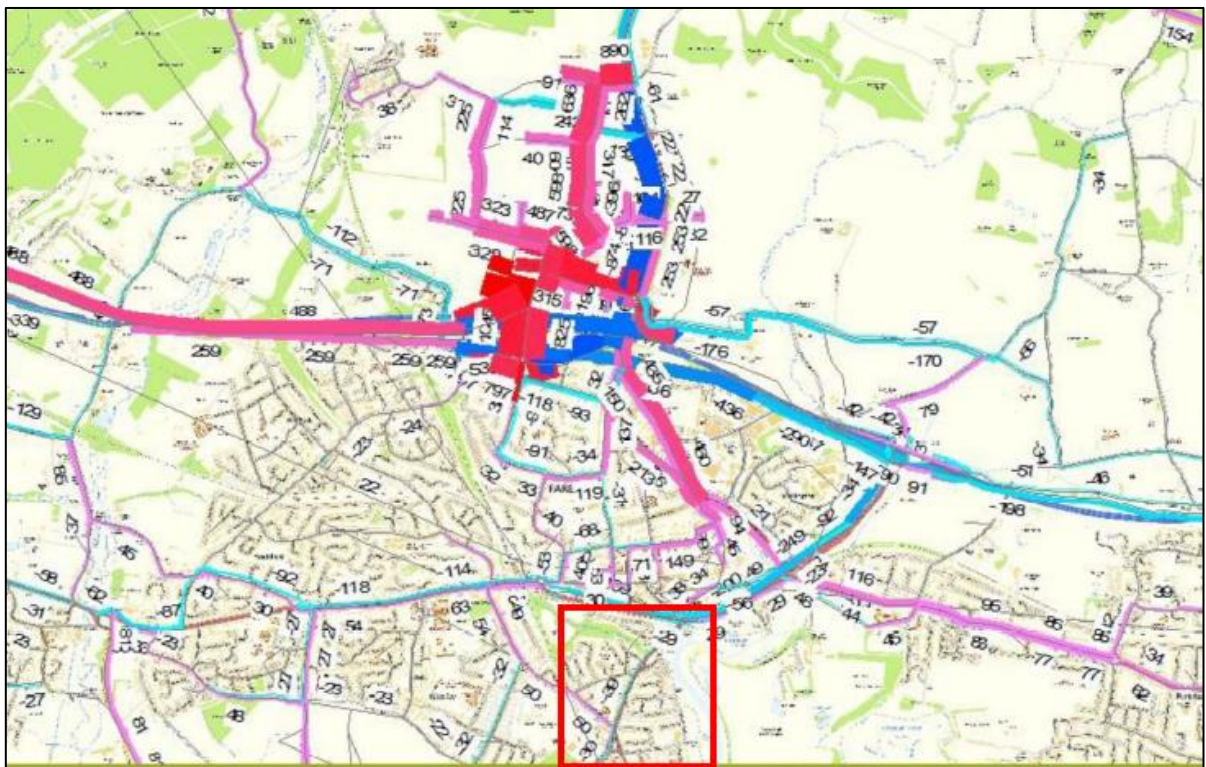
## SECTION 4 Committed Development Traffic Flows

4.1 HCC's written response confirms the committed developments included within the Transport Assessment (report ref: ITB10353-010) are acceptable, however the response goes on to suggest:

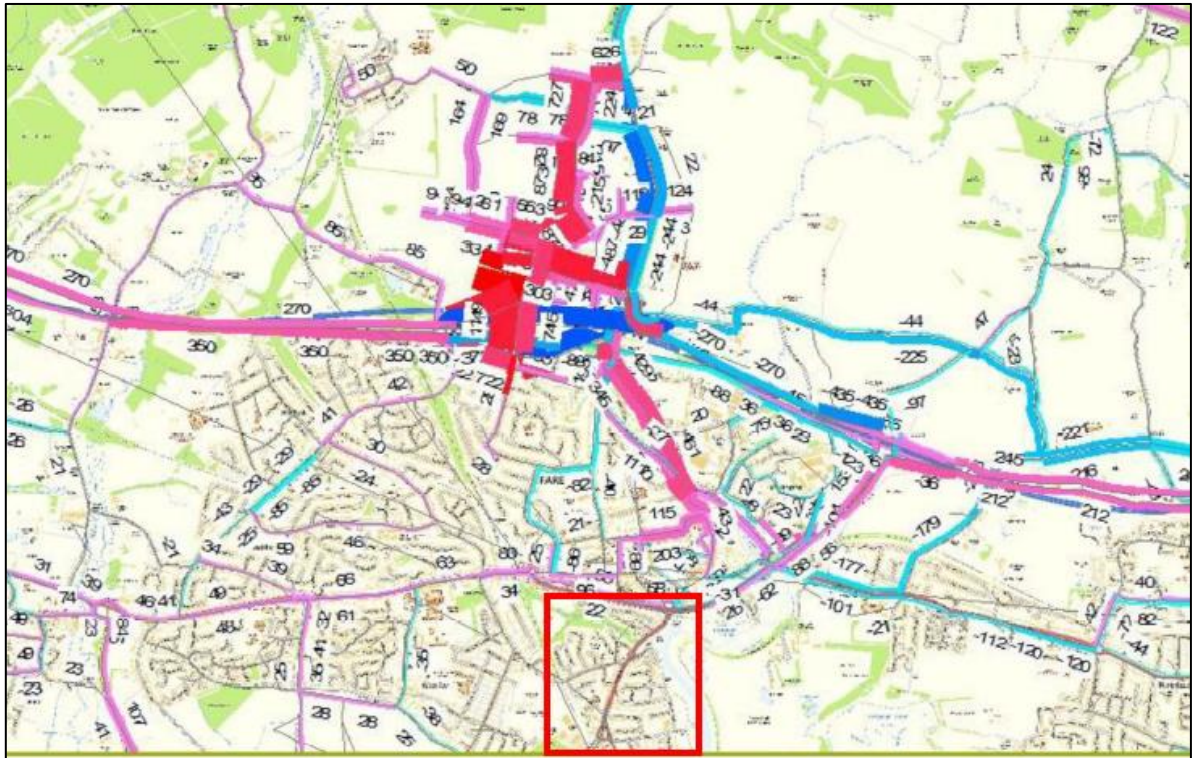
*"Welborne Garden Village (P/17/0266/OA – up to 6,000 dwellings) committed development flows appear low. Traffic flow diagrams supplied in the Transport Assessment Addendum dated March 2019 prepared by WSP in support of application P/17/0266/OA forecasts a significant proportion of trips to exist the M27 J11 off-slip and travel via the A27 Gosport Road."*

- 4.2 HCC acknowledged the WSP assessment network does not reach as far as Newgate Lane, however, suggest that given the volume of traffic routing along the A27 Gosport Road from the M27 J11, it is expected that more traffic would route along Newgate Lane than what was presented in the submitted Transport Assessment (report ref: ITB10353-010).
- 4.3 There is limited information presented within the significant volumes of transport assessments supporting Welborne to determine with any accuracy the projected traffic flows from Welborne that would travel along Newgate Lane.
- 4.4 However, the most representative information that can be located is contained in the SRTM outputs which were included in Appendix F of the Welborne Transport Assessment. These outputs present traffic flow difference plots between the 2036 'Do Something' (i.e. with Welborne Garden Village and infrastructure changes including M27 J10 work) and 2036 'Do Minimum' (i.e. without Welborne Garden Village). Extracts of the outputs are provided in **Images 4.1 and 4.2** (full output in **Appendix D**).

**Image 4.1: Do Something vs Do Minimum AM**



Source: SRTM / WSP Transport Assessment

**Image 4.2: Do Something vs Do Minimum PM**

Source: SRTM / WSP Transport Assessment

- 4.5 The extracts presented in Images 4.1 and 4.2 only show flow differences greater than 20 PCUs per hour. The highlighted area is the most southerly point available within the information presented and agreed with HCC, which comprises the A32 / Newgate Lane / Palmerston Drive junction.
- 4.6 The Difference Plots show that in the AM peak, Gosport Road south of the A32 junction will experience a net reduction of 29 two-way vehicle movements northbound and that during the PM peak there will not be any notable change in traffic flows south of this junction (less than 20 vehicle differences).
- 4.7 On this basis, the traffic flows presented within the Transport Assessment are considered to be a reasonable assessment and assume all the traffic flows estimated to route south along Gosport Road will continue to route south to Peel Common Roundabout when in reality some vehicles will visit other destinations, particularly Gosport and the employment areas north of the site.

## SECTION 5 Pedestrian / Cycle Assignment

5.1 A pedestrian and cycle assignment was prepared as part of the planning application to understand the increase in pedestrian / cycle movements onto the wider network.

5.2 Within HCC’s response it is stated that:

***“The pedestrian and cycle demand assessment does not include any of the catchment schools. This is inaccurate and should be corrected. The assessment will be revised in detail following this correction.”***

5.3 The TA considered access to education using the most likely education attractors, being the schools to the south and east of the site. It is the Appellant’s view that irrespective of the Catchment Schools and whether these are later amended, the proximity of the site to schools south and east of the site, combined with their admissions policies and established capacity for accepting new pupils, that it is these schools that will be the primary attractors of pedestrian and cycle demand rather than the current Catchment Schools. This remains the Appellants viewpoint.

5.4 Notwithstanding this, it has been requested by HCC that an assessment considering the impact on pedestrian and cycle demand assuming attendance at Catchment Schools is completed.

5.5 A Sensitivity Test (ST) has been undertaken and is presented in **Appendix E** and a comparison between the previously submitted assessment and the ST is provided in **Table 5.1**. As the site falls into two separate catchment areas for primary and secondary education, it is assumed that there will be a 50% split between the respective catchments from the site.

**Table 5.1: Pedestrian / Cycle Assignment Comparison**

Assessment	Trip Type	Route A1 – Brookers Lane	Route A2 – Woodcot Lane via Brookers Lane	Route B1 – PROW	Route B2 – PROW	Route C – Newgate Lane East	Route D – East to Tukes Av 9 Northern Parcel)	Total Trips
TA Assessment	Walking Trips	204	52	44	109	35	291	735
	Cycle Trips	7	3	4	8	4	17	42
	Total	211	54	48	117	39	307	777
Sensitivity Test	Walking Trips	157	83	75	124	54	242	735
	Cycle Trips	6	4	4	8	6	15	42
	Total	163	87	79	132	60	257	777
Difference		-48	+33	+31	+15	+21	-50	0

Source: Consultant’s Estimates

Note: Walking Trips include walk to Public Transport

- 5.6 The Sensitivity Test would result in a reduction in forecast movement on Brookers Lane and Tukes Avenue and increases in use of Woodcot Lane and PROW north of the site. In peak periods this equates to an additional four to five movements in the morning peak and three to four in the evening peak on both Routes A2 (Woodcot Lane) and B1 (PROW) and has limited impact on the assessments.

## **SECTION 6 Summary**

- 6.1 This TN has been prepared in response to the highway's comments received from HCC providing additional assessment requested and further information where needed.
- 6.2 It is requested that HCC confirm agreement to the matters addressed in the TN to enable the wider assessments to be updated in line with their requests.

**APPENDIX A.** REVISED DISTRIBUTION AND  
ASSIGNMENT MODEL

## **APPENDIX B. TRAFFIC ROUTING ASSESSMENT**

## **APPENDIX C. REVISED TRAFFIC FLOW DIAGRAM**



## **APPENDIX D. WELBORNE SRTM OUTPUTS**

**APPENDIX E. PEDESTRIAN / CYCLE DEMAND –  
SENSITIVITY TEST**