

Traffic Effects of Housing Development

Introduction

The presentation of information for the July 2015 Consultation will benefit from information relating to the traffic effects of the potential development sites.

It would be normal practice for a developer to estimate the traffic impacts of a development, identify any resultant traffic issues resulting from the development and propose remedial measures to overcome those issues.

A developer would typically make use of existing local traffic models, alongside the TRICS database, which indicates the scale of traffic that would be generated from particular types of development.

Whilst there is a local MSDC traffic model available, which has been used to produce forecasts for the District based on an assumed level of growth for Hassocks, it is not sufficiently detailed to use for forecasting the traffic that would be generated from individual developments within Hassocks.

The Approach Taken

In the absence of detailed, specific traffic models, an approach has been taken to estimating the relative traffic impacts of the potential development sites within Hassocks. The approach comprises the following steps:

1. Determine the area of the site that is available for development
2. By reference to surrounding density and landscape characteristics select a level of density for the site;
3. Calculate the number of houses to be considered for that site (or if a developer has proposed a number of houses, substitute that number¹);
4. Determine the relative proximity of that site to the centre of the village and station, using a scale of 1 to 3, where 1 represents the closest;
5. Estimate the ease of access to/from the site, using a scale of 1 to 3, where 1 represents the best access;
6. Estimate the relative scale of vehicular traffic generation from the site, taking account of the number of houses proposed and the likelihood of walking/cycling due to proximity, using a scale of 1 to 4;
7. Estimate the relative amount of traffic that would travel through Stonepound crossroads, using a scale of 1 to 3;
8. Combine (by multiplication and/or addition) the numbers estimated at 5, 6 and 7.

¹ For site 7 (Pattendens/Streamside), the proponent has suggested 60 housing units. Our analysis indicates that 33 would be the maximum number at a low/medium density, which would seem appropriate for the site. However, given the proponent's view, we have adopted a figure of 45 housing units for analysis purposes, which would imply high density for the site.

It must be emphasised that the use of numeric scales is not intended to imply an absolute scale, simply that smaller numbers indicate a lower effect than larger ones. Hence, in seeking to combine the scales, the options of multiplying or adding the numbers have been examined.

The Proximity Measure

Indicates how close the site is to the facilities (shops, banks, station). Sites 3, 10 and 14 are coded at level 1, and sites 4, 9, 13, 15 and 16 are coded at level 3. The remaining sites are coded at level 2.

The Ease of Access Measure

Indicates how easy it will be to provide vehicular access to the site. Sites 7, 8, 9, 10, 15, 16 and 20 are coded at level 1, and sites 1, 2, 3, 17 and 17a are coded at level 3, primarily due to their proximity to existing junctions (or in the case of the station goods yard, the change in levels). The remaining sites are coded at level 2.

The Traffic Generation Measure

Indicates how much vehicular traffic would be likely to be generated by the site. It would be expected that the larger sites would generate more vehicular traffic in direct proportion to the number of households. However, sites which are closer to facilities will be more likely to walk/cycle to undertake activities in the village, and to travel from the station. Consequently, it would be expected that the sites with the higher traffic generation levels would create the greatest increase in parking demand within the village for activities such as the school run and local shopping.

Sites 1, 5a, 6, 7, 10, 14, 17, 17a and 20 are coded at level 1, and sites 2, 3, 4, 8, 12 and 16 are coded at level 2. Sites 9 and 13 are coded at level 3 and site 15 is coded at level 4.

Relative Impact on Stonepound

Indicates how much traffic generated from the site would be likely to travel through Stonepound on a regular basis. For sites to the east of the centre, access to the A23 (either North or South) can be made via Lodge Lane and New Road to Pyecombe, avoiding Stonepound and Hurstpierpoint. Sites 5a, 6, 7, 10, 14 and 20 have been coded at level 1, and sites 2, 3, 9, 15 and 17 have been coded at level 3. The remaining sites have been coded at level 2.

The Results

The Results are shown in the Table.

Multiplication and addition give essentially the same ordering of sites, though the multiplication 'appears' to give a greater degree of separation between the values obtained for sites.

This greater separation is, of course, spurious; the better way to present the results is to acknowledge that there are sites which:

- Have a relatively small impact on traffic levels (mult values of 5 or less)
[Sites 5a, 6, 7, 8, 10, 14, 16, 20]
- Have a medium impact on traffic levels (mult values between 6 and 10)
[Sites 1, 4, 9, 12, 17, 17a]
- Have a significant impact on traffic levels (mult values of over 10)
[Sites 2, 3, 13, 15]

Site	Area based Housing Estimate	Traffic based on	Proximity to village centre ¹	Ease of Access ²		Generation of vehicular traffic ³	Additional traffic through Stonepound ⁴	Traffic Score (mult)	Traffic Score (add)
1. London Road	30 max.	30	2	3	Access to London Road, but very close to Stonepound	1	2	6	6
2. Ham Lands	97 proposed	97	2	3	Access to London Road, but very close to Stonepound	2	3	18	8
3. Station Goods yard	60 permitted	60	1	3	levels difficult for easy access to Keymer Road	2	3	18	8
4. Lands to the north of Mackie Avenue	37	37	3	2	assumed access to Ockley Lane, via mini-roundabout	2	2	8	6
5. Downlands field	N/A	N/A							
5a. Land at Southdowns Farm	18 max.	18	2	2	assumed access to Lodge Lane	1	1	2	4
6. Land west of Lodge Lane	13 max.	13	2	2	same access as site 5a	1	1	2	4
7. Pattenden's (Streamside)	33 max	45	2	1	access via Silverdale	2	2	4	5
8. North of Churchmead	50-60 proposed	55	2	1	access onto Ockley Lane	2	2	4	5
9. North of Shepherds Walk	140 proposed	140	3	1	access onto London Road	3	3	9	7
10. National Tyres	21 min.	25	1	1	access onto Dale Avenue	1	1	1	3
11. Telephone Exchange	N/A	N/A							
12. East of Lodge Lane	88	88	2	2	access onto Lodge Lane	2	2	8	6
13. North of Clayton Mills	150	150	3	2	access through site 4 to Ockley Lane	3	2	12	7
14. Post office depot	9	9	1	1	access onto Downsview Road	1	1	1	3
15. Land at Hassocks Golf Club	209 proposed	209	3	1	access onto London Road	4	3	12	8
16. The Old Cricket Ground and houses north of Friars Oak	22 proposed	22	3	1	access onto London Road	2	2	4	5
17. Russell's Nurseries	30 max.	30	2	3	Very close to Stonepound	1	3	9	7
17a. South of Hurst Road	15 max.	15	2	3	Very close to Stonepound	1	2	6	6
18. Infant School	19 min.	N/A							
19. Tate's garden centre	56	N/A							
20. South of Clayton Mills	11	11	2	1	access to Woodlands Road or Birch Way	1	1	1	3

Explanation of Codes

proximity

- 1 close enough to walk
- 2 decent likelihood of walking, but some car use
- 3 high likelihood of using car

ease of access

- 1 relatively straightforward to provide
- 2 some issues with provision/congested area
- 3 very difficult to provide/very congested area

traffic generation

- 1 small site, good proximity
- 2 medium site, good proximity
- 3 medium site, poor proximity
- 4 large site, poor proximity

additional traffic through Stonepound

- 1 small site/distant from Stonepound
- 2 medium/large site, not adjacent to Stonepound
- 3 Large site, feeding onto London Road