



1.0 Introduction

- 1.1 This Note considers the response prepared by Highways England (HE) on the application for 1,250 houses with primary school, local centre and care facilities on land at Pump Farm and Bloors Farm, Lower Rainham. A copy of the response is included in **Appendix A**.

2.0 Base Traffic Volumes and Growth

Information on this matter will be required.

The TA has no details of base traffic data for the SRN.

Traffic growth is determined using TEMPRO, but these factors have only been determined for urban roads, not strategic roads. Furthermore, the TEMPRO output would need to be provided so we can verify if the selection parameters are accurate.

For base and future traffic volumes on the SRN, we consider that use of the Medway Local Plan Traffic Modelling may be appropriate. This is still under development, and Highways England are involved in the process. Please see further comments below under "Modelling".

DTA Response

- 2.1 The TA included forecast development traffic on the SRN at junctions 1, 3 and 4 of the M2 as these are the sections of the SRN which would have the greatest impact from the proposed development. The scale of the impact is considered to be modest and therefore the impact of the proposals on base traffic levels on the M2 will be indiscernible. For context, the DfT website provided base flow data on the M2 within the vicinity of junctions 2, 3 and 4 shows an annual average daily flow of in the region of 70,000 and 100,000 vehicles.
- 2.2 If TEMPRO factors are applied this will uplift base traffic levels resulting in an overall reduced percentage increase from development traffic. On the basis of the forecast traffic impact on the SRN, full modelling of individual junctions is not warranted, and

therefore TEMPRO factors are not necessary. For completeness, 10 year growth factors for Medway 018 (selecting urban and trunk roads) are 1.1156 for the AM peak and 1.1185 for the PM peak.

3.0 Committed Developments

Paragraph 6.1.3 of the TA lists various committed developments; then paragraphs 6.1.4 and 6.1.5 say that the TEMPRO growth already accounts for a greater level of growth and therefore no account needs to be made of the committed development traffic.

In response, we have the following queries and comments:

Please could Medway Council confirm, or otherwise, that the list of committed developments in Paragraph 6.1.3 of the TA is complete and that the stated development types and quantum are correct?

As noted above, we need some details of the TEMPRO growth for the SRN in order to determine their accuracy and also then to assess the validity of the point in paragraphs 6.1.4 and 6.1.5 of the TA, i.e. the assertion that no account needs to be made of the committed development traffic.

Also, as noted above, use of the Medway Local Plan Traffic Modelling may be appropriate.

DTA Response

- 3.1 A response is awaited from Medway Council in respect of the TA which will confirm the position in respect of committed development. Within the TA, the committed development sites were reviewed within the immediate vicinity and total around 900 dwellings. The extent of additional housing growth included within TEMPRO for Medway is for 11,380 households. This is significantly higher than the committed development quantum and therefore no further uplift is required. For completeness, TEMPRO growth factors for the SRN are provided in paragraph 2.2.

4.0 Development Trip Generation

In terms of impact on the SRN, our interest is limited to the residential trips and the care facilities, as the other land uses would be likely to either be ancillary to the residential element and/or to generate only local trips.

The residential trip generation is determined in the TA as follows:

- TRICS rates for person trip rates;
- Application of National Travel Survey (NTS) data to determine journey purposes (percentages of AM and PM peak trip for each purpose);
- Application of Census 2011 Journey to Work Statistics for Middle Super Output Area Medway 018, to determine mode share for each journey purpose separately. From this, the peak-hour vehicle trips are determined.
- A degree of internalisation is applied to the residential trips, as described in section 5.9 and the resulting external residential trips are then summarised in Table 31.

The care facilities trip generation is determined in the TA as follows:

- TRICS rates for vehicle trip rates.

In response, we have the following comments and queries:

- Please provide the NTS data and Census 2011 Journey to Work Statistics, so that we can verify the quoted percentages.
- Does the NTS data in Table 17 refer to averages across the whole of the UK? How do these journey purpose splits vary across locations?
- What is the geographical extent of the Middle Super Output Area Medway 018, used to determine mode share? If this includes locations with much better access to non-car transport than the proposal site, then this could be under-estimating the probable car mode share of the proposal.
- Use of TRICS vehicle trip rates, with careful selection of TRICS sites based on similar characteristics to the proposal site, may be more accurate and should at least be used for comparison. These similar characteristics should include on- and off-street

parking provision; non-car transport provision; local population, vehicle ownership, location type, as well as the age of the surveys and sample sizes.

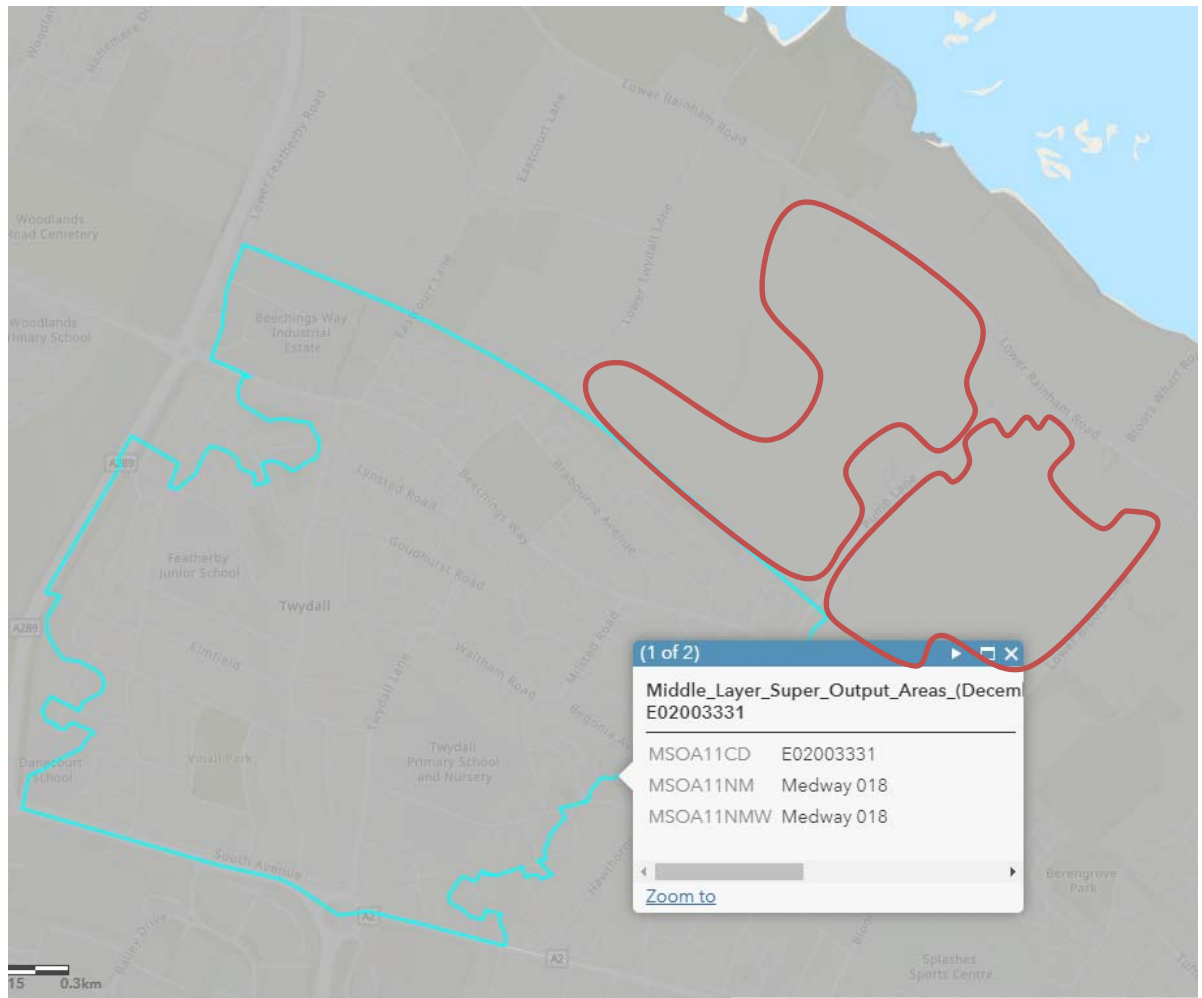
DTA Response

- 4.1 The NTS data and Census 2011 journey to work data are attached in **Appendix B**. The journey to work data was included in Appendix I of the TA. The NTS data is typically based on national figures and no equivalent dataset is available for specific regions.
- 4.2 The development trips on the SRN are limited to commuting and business trips on the basis that trips associated with other trip purposes will be local to the site. The number of commuting and business trips are set out in Table 47 of the TA and are replicated below.

Junction	%	Link	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
J1	16.9%	Westbound on slip	7		30	
		Eastbound off slip		26		14
J3	15.8%	Northbound off slip		25		13
		Southbound on slip	6		28	
J4	16.8%	Eastbound on slip		2	2	1
		Westbound on slip		25		13
		Eastbound off slip	6		30	
		Westbound off slip	0		2	

- 4.3 The proportions of journeys to the main destinations via the SRN have been derived from the journey to work data. The proportions are set out in the above table and have been derived from the information included in **Appendix B**.
- 4.4 The extent of the MSOA for Medway 018 is included in the image below. The area included is immediately adjacent to the proposed site and includes the built up residential area immediately to the south. This therefore provides a representative sample size with similar characteristics to the proposed site.

Image 1 – Extent of MSOA Medway 018 (Location of proposed site shown in red)



- 4.5 Trip forecasts have been derived from the TRICS database using best practice and include all privately owned residential sites within suburban, edge of town and neighbourhood centres. The sites are considered representative of the site location.

5.0 Development Trip Distribution

Different methodologies are applied for different journey purposes. The majority of trips in the critical AM peak are for commuting, business, escorted education and education. Secondary education trips have been distributed according to the locations of nearby schools and assumed splits between them.

Primary school pupil and staff trips have been distributed according to 2011 Census journey to work data for the Middle Super Output Area (MSOA) of Medway 018.

The commuting and business vehicle trips have also been distributed based on the 2011 Census journey to work data for the Middle Super Output Area (MSOA) of Medway 018.

In response, we have the following comments and queries:

Please provide the Census 2011 Journey to Work Statistics, so that we can verify the quoted percentages.

What is the geographical extent of the Middle Super Output Area Medway 018? This could have quite varied distribution in reality.

On receipt of the above information, we will review the distribution further. We will also check that the methodology does not double-count the reduction in trips due to internalisation (as noted under "Development trip generation" above).

DTA Response

5.1 This information is provided under trip generation above.

6.0 Modelling

No modelling of the SRN has been undertaken; the TA states that this is not considered necessary because the "*the impact on any single link will be a maximum of 30 trips during the peak hour*".

In response, we comment as follows:

- Please refer back to our above comments on various aspects of the TA's methodology. When these are addressed, we will be in a better position to understand whether or not SRN modelling may be required.
- We need to consider the cumulative impact with committed developments and/or background traffic growth too.



-
- There is existing congestion at various M2 junctions. Also, the proposal is not in the Local Plan and we therefore need to be particularly careful to assess the impact more thoroughly.
 - It may be appropriate to consider this proposal within the Medway Local Plan Traffic Modelling. This is still under development, and Highways England are involved in this process.
 - The number of additional trips at a junction is more important than the additional trips on a *link*, due to the interaction of links at a junction.

DTA Response

The requested information is included within this response. The forecast trip generation on the SRN has been quantified using best practice guidance for preparing Transport Assessments. The methodology is therefore sound and wholly appropriate. Based on the quantum of forecast additional traffic at the junctions onto the M2 it is considered that a detailed assessment of the SRN is not warranted.



Appendix A

From: Bown, Kevin [<mailto:Kevin.Bown@highwaysengland.co.uk>]

Sent: 17 July 2019 15:28

To: planning.representations@medway.gov.uk; Conor Healy; inmail@dtatransportation.co.uk

Cc: Planning SE

Subject: FAO Case Officer Hannah Gunner: Highways England initial response (our ref 85118#8020) re application MC/19/1566 Land Off Pump Lane, Rainham, Kent, ME8 7TJ

For the Attention of: Hannah Gunner, Medway Council

Planning Application No.: MC/19/1566

Site: Land Off Pump Lane, Rainham, Kent, ME8 7TJ

Development: residential development comprising of approximately 1,250 residential units, a local centre, a village green, a two-form entry primary school, a 60-bed extra care facility, an 80-bed care home and associated access (vehicular, pedestrian, cycle).

Highways England's Ref: 85118#8020

Dear Ms Gunner,

Thank you for your letter of 28 June 2019, regarding the above outline application and requesting a response by Friday 19 July 2019.

Highways England ("we") have been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and are the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such works to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

We will be concerned with proposals that have the potential to impact on the safe and efficient operation of the SRN. In this case our interest relates to the M2, and potentially the A2, A249 and M20.

We understand that the proposal/site is **not** in the Medway Local Plan 2003.

The emerging Medway Local Plan for 2018 to 2035 is still being developed with the publication of the draft plan due in summer 2019. It is not clear if the site will be part of the new emerging Medway Local Plan for 2018 to 2035.

We have therefore assessed the site on the following basis in accordance with NPPF, C2/13 and the Highways England guidance on working with applicants

We have reviewed the following document related to this application:

- David Tucker Associates, 21 March 2019, *Land at Pump Farm and Bloors Farm, Lower Rainham, Final Transport Assessment* ("the TA").

Review of the Transport Assessment (TA)

Site Access

We are content that the site does not have and will not require *direct* access onto the SRN.

Base traffic volumes and Growth

Information on this matter will be required.

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Mitigation

We will consider the need, if any, for mitigation measures when the above comments and queries have been addressed and we are in a position to understand fully the potential SRN impacts.

We may also comment on construction traffic impact, if appropriate, which could be addressed by a construction traffic management plan.

Summary and Conclusions

Overall, we have reviewed the TA and note that the development has the potential to result in a significant amount of AM and PM peak hour trips, however there is not yet a definite indication of the impact upon the SRN and we therefore cannot determine if the proposal will materially affect the safety, reliability and / or operation of the SRN (the tests set out in DfT Circular 02/13, particularly paragraphs 9 & 10, and DCLG NPPF, particularly para 109).

Please note that this email does not constitute a formal recommendation from Highways England. We will provide a formal recommendation when we can be confident that the application is in its final form. In the meantime, we would ask that the authority does not determine the application (other than a refusal), ahead of us receiving and responding to the required/requested information. In the event that the authority wishes to permit the application before this point, we would ask the authority to inform us so that we can provide substantive response based on the position at that known time.

You will note that I have also copied our response to the applicants agent and transport advisors. We look forward to receiving their response in due course.

In the meantime if they or you have any queries, please contact us at planningse@highwaysengland.co.uk.

Kind regards,

**Kevin Bown BSc(Hons) MPhil CMS MRTPI Spatial (Town) Planning Manager
South East Region, Spatial Planning Team, Operations Directorate**

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Appendix B

Table NTS0502

Trip start time by trip purpose (Monday to Friday only): England, 2013/17

Percentage											Unweighted sample size (trips '000s)
Start time	Commuting	Business	Education	Escort education	Shopping	Other work, other escort and personal business	Visiting friends / entertainment / sport	Holiday / Day trip / Other	All purposes		
0000 - 0059	41	4	-	-	3	11	35	6	100	1	
0100 - 0159	49	3	1	-	2	9	32	4	100	1	
0200 - 0259	63	4	0	-	1	8	15	10	100	-	
0300 - 0359	64	6	1	-	2	6	12	9	100	1	
0400 - 0459	70	8	1	-	1	7	3	10	100	2	
0500 - 0559	76	7	-	-	1	6	3	7	100	7	
0600 - 0659	68	7	1	-	2	9	4	9	100	20	
0700 - 0759	50	6	14	5	3	14	4	5	100	58	
0800 - 0859	21	3	29	22	4	14	3	3	100	122	
0900 - 0959	11	5	3	8	22	26	14	10	100	60	
1000 - 1059	5	4	2	1	34	25	16	13	100	62	
1100 - 1159	5	4	2	2	36	24	18	10	100	63	
1200 - 1259	7	5	3	2	31	24	20	8	100	60	
1300 - 1359	10	5	2	1	29	24	19	9	100	57	
1400 - 1459	10	4	4	10	25	21	18	9	100	64	
1500 - 1559	7	2	26	21	12	14	12	6	100	116	
1600 - 1659	22	4	7	4	15	21	18	9	100	78	
1700 - 1759	33	4	3	2	12	20	19	7	100	79	
1800 - 1859	22	3	1	1	14	18	32	9	100	58	
1900 - 1959	12	2	1	-	15	19	42	9	100	39	
2000 - 2059	13	2	1	-	13	16	44	9	100	24	
2100 - 2159	15	3	1	-	8	16	50	8	100	17	
2200 - 2259	21	3	-	-	4	12	53	6	100	12	
2300 - 2359	22	2	1	-	3	12	55	5	100	6	
All day	18	4	9	7	17	19	18	8	100	1,005	

1 Five survey years combined.

The figures in this table are National Statistics

The results presented in this table are weighted. The base (unweighted sample size) is shown in the table for information. Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population of Great Britain (1995-2012) or England (2013 onwards) and for the drop off in trip recording in diary data. The survey results are subject to sampling error.

Data for 2002-2015 have been revised, see publication for details.

Email: national.travelsurvey@dft.gov.uk

[Notes & definitions](#)

Source: National Travel Survey

Last updated: 26 July 2018

Next update: Summer 2019

Route	Route Total	%
A	706	32%
B	92	4%
C	442	20%
D	646	29%
E	178	8%
Local 1	63	3%
Local 2	25	1%
Local 3	40	2%
Other	166	
TOTAL:	2192	100%





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