

2. Scope of This Document

This document sets out appropriate criteria to assist the modelling services provider in deciding on access requests to the A29 Realignment Model by third parties, in terms of:-

- Whether access will be permitted
- Appropriate royalty (access) charges & other costs
- Conditions attaching to approved access requests
- Any other issues deemed relevant

3. Access Validity

The key criterion is whether approval of access would be in the general public interest.

WSSC shall be the sole arbiter of when developments are large enough that use of the model is required to assess the impact of development. WSSC will consider the potential for the development to change traffic patterns in the local area in a way that would not be reflected in a manual TA. This will take into account the peak traffic generation and the existing local network conditions.

WSSC reserves the right to require assessment of selected individual junctions using traffic assignments, growth factors and/or trip distributions obtained from A29 Realignment Model forecast scenarios as inputs to the most appropriate junction modelling software. Any need for local addition validation or sub-area analysis would be discussed on a case-by-case basis.

4. A29 Realignment Model Development Cost

Total A29 Realignment Model development cost = £123,600 (ex VAT) –
This is based on data collection, base model development and forecasting

5. Royalty (Access) Charge

- 5.1 A Royalty (access) charge, payable to the County Council, shall be applied for all third party access, to the A29 Realignment Model, comprising:

4% of A29 Realignment Model model development cost for 6 months access, OR

6% of A29 Realignment Model model development cost for 12 months access, OR

10% of A29 Realignment Model model development cost for 36 months access

- 5.2 Payment of the royalty fee enables the supply of access to the model as existing, including base year model and latest do-minimum 2021 and 2031 forecast models along with electronic copies of the reports listed in section 7 of this document.
- 5.3 The modelling services provider will waive the royalty charge for access requests by **public bodies and publically owned companies** where deemed, by WSCC, to be in the public interest. Examples would include Arun District Council and Highways England.
- 5.4 After a period of five years or more has elapsed from completion of the model data collection programme, WSCC may determine that the model requires updating.
- 5.5 At such time as the A29 Realignment Model is subsequently updated or revised, this Access and Charging Protocol will also be subject to review, including revision of royalty (access) fees and prices for supply of documentation.

6. Costs of Modelling Services Provided

- 6.1 This shall be a matter solely between the party granted (or seeking) access and the modelling services provider and distinctly separate from the above royalty charge.
- 6.2 The scope of modelling required, will have been agreed first with WSCC and will typically include, updates to the do-minimum forecast including new committed development, and agreement of what with-development and with-development with mitigation scenarios are required. This may include a sensitivity scenario to take into account development considered likely but not yet committed. A model scenario including recently committed development as a previous do-something test may be available for modification as the update to the do-minimum to avoid duplication.
- 6.3 The modelling services provider undertakes that their fees shall be generally in line with their normal commercial rates for modelling services and shall

not seek to impose any premium charge for being a sole supplier of these services.

- 6.4 Whilst it is preferred that modelling is undertaken by the modelling services provider who built the model, due to their knowledge of the model, it will be possible for the party granted (or seeking) access to request that the modelling services can be provided by an alternative supplier procured by themselves, provided that WSCC is fully satisfied that the alternative supplier has the relevant expertise and experience in transport simulation modelling using the relevant software to run and interpret the A29 Realignment Model correctly. In such cases, the alternative modelling services provider will also be bound by the clauses of this protocol, with particular reference to sections 1 and 8 of this document.
- 6.5 Neither WSCC, nor any of its officers, shall be obliged to intercede in agreements nor disputes between third parties granted (or seeking) access and the modelling services provider.

7. Supply of Model Documentation

- 7.1 To assist a third party seeking access, the following documents can be made available in electronic format:
- Survey & Data Report September 2017: £50
 - Model Validation Report October 2018 & Network Plots: free of charge
 - Model Forecast Report December 2018: free of charge
 - Raw traffic data collected, excluding mobile phone data and data supplied by third parties, 15% of the collection cost of the data requested, when purchased without or in advance of full model access.
 - GIS model zone plans: free of charge
- 7.2 When a purchaser of any these documents or data subsequently purchases full model access within a period of 12 months from their initial purchase, the price paid for documents or data (net of VAT) can be discounted from the relevant royalty (access) charge. Such a discount would not apply in the instance where the model has been updated and the relevant documents revised during the intervening period.

8. Normal Conditions Applying to Approved 3rd Party Access Requests

- 8.1 Work to be undertaken by the modeling services provider and subject to priorities set by client group.
- 8.2 If full copies of the model and principal data sets are made available to a modelling services provider procured by a third party, then this party is only permitted to use the model and data sets for the purpose specified for that commission. Neither the alternative modelling services provider nor the third party gaining access to the model will gain any intellectual property rights in the model, including in the event that modifications to the model are approved by WSCC and implemented. Files should be provided to WSCC on request during the commission and in any event at the end of the commission.
- 8.3 Copies of all outputs to be supplied to WSCC at the end of commission including model files as well as reports.
- 8.4 No details of the model, its components or outputs shall be divulged to any (other) third party without prior WSCC approval.
- 8.5 A29 Realignment Model shall not be re-calibrated without prior WSCC approval.
- 8.6 All model outputs and related information shall be used only for the purpose agreed. Model do-something tests of development proposals will be made available for modification as updated do-minimum forecasts by future model users, should the development subsequently be consented and thereby become a committed development.
- 8.7 The user/consumer must satisfy themselves (and agree with the appropriate approving agency/officers etc. as necessary) that the model is fit for the intended purpose. No liability is accepted, nor approval conferred, by the modeling services provider or WSCC in this respect.

9. Over-riding Considerations & Matters Not Covered Above

- 9.1 Any matters requiring a decision to be taken by WSCC which are not adequately covered by any of the above clauses shall be guided by the principle of what WSCC deems to be in the general public interest.
- 9.2 Payment of model royalty (access) charges under this protocol does not entitle the model user to any discounts to any charges for WSCC services, such as pre-planning application advice.

10. Requesting Access

Requests for access shall be supported by a short statement covering the following points:-

- Concise description of the project.
- Who it is on behalf of/client.
- Agreement to pay the appropriate royalty/access charge – state value plus VAT.
- Acceptance of access protocol conditions.

WSCC (A29 Realignment Model Client Project Team) 18/07/19

Appendix B: WSCC response dated 31st July 2019

Pell Frischmann		Project No. A13394
		Version No. Draft 1
SCOPING NOTE	Project Barnham Eastergate Westergate (BEW)	Date May 2019
Subject Traffic modelling scoping note		By S. Moody P. Smith

INTRODUCTION

1. This note has been prepared to set out the proposed scope of traffic modelling for the Barnham Eastergate Westergate (BEW) development. The proposed traffic modelling will inform the transport assessment which will support the planning application for both the site and the realigned A29. The proposed modelling will build upon the technical work that has been undertaken to date both by Pell Frischmann and WSP on behalf of WSCC, and this scoping note seeks to agree the extent of the junction modelling that is required to support the planning applications.
WSCC require sight of a proposal (or proposals) from the developer showing their preferred thoughts of how they see the application (or applications) being submitted, what they will include (and who will be submitting them). When received, WSCC will consider the information and after taking legal advice, will then reply. Paragraph 1 above implies both will be submitted by the developer.
2. Initial traffic modelling was undertaken in 2016 as part of the site promotion within the local plan; the assessment was undertaken using traffic flows derived from the Arun Transport Study (ATS) commissioned by Arun District Council (ADC) and undertaken by Systra. Subsequently the BEW site was allocated within the ADC Local Plan, which also sets out the proposed realignment of the A29 which passes through the BEW development. *Noted.*
3. To inform the phasing of the BEW development and associated infrastructure, a Trigger Point Modelling assessment was undertaken by WSP on behalf of WSCC using the updated 2017 Chichester Area Transport Model (CATM). The CATM is a SATURN model and was recently updated to inform the business case for the A29 realignment scheme which was completed in February 2019. This included a refined zone system and road network to cover the BEW development. The Access and charging protocol is required to be followed for use of the model. GP has advised and provided copies of the terms and conditions; please note that this is being reissued with minor updates, which supersedes the paper version issued at the meeting. This does not affect the charging scale. Pell Frischmann also confirmed that they are involved with the Masterplanning of the Southern Consortium's allocation, drainage and internal design work and planning layouts etc. as well as the TA's for the scheme and specific parcels as required. As such, WSCC recommends that the applicant continues engagement with the relevant Highways and Planning Authorities through the pre-application process.
4. The base year model network was calibrated and adjusted where appropriate. Once the calibration was complete the model flows and journey times were compared with observed data to validate the model. The results of this fulfilled the DfT WebTAG model validation criteria. Full details of this are available in the A29 Local Model Validation Report (October 2018). *Noted.* Under the terms of the model Access and Charging Protocol the County Council will supply this report in advance of model access without charge.
5. Forecast year models were developed for forecast years of 2023 and 2038 to represent the year of the A29 opening and design year respectively. Further information on the forecast models is available in the A29 Realignment Traffic Forecasting Report (January 2019). *Noted.* Under the terms of the model Access and Charging Protocol the County Council will supply this report in advance of model access without charge.
6. The trigger point modelling considered six development and infrastructure scenarios and assessed the

performance of the junctions listed in Table 1 and shown in Figure 1.

Table 1: Junctions assessed in the trigger point analysis

Junction number	Junction name
1	A27/ Fontwell Avenue
2	Fontwell Avenue/ Eastergate Lane
3	Fontwell Avenue/ Barnham Road
4	Barnham Road/ Lake Lane
5	Nyton Road/ Westergate Street
6	Nyton Road/ Oving Road
7	Westergate Street/ Hook Lane
8	Shripney Road/ Charles Purley Way
9	Shripney Road/ Rowan Way
10	Fontwell Avenue/ A29 realignment
11	Barnham Road/ A29 realignment

12	Westergate Street/ Northern access road
13	Lidsey Road/ Southern access road
14	Lidsey Road/ A29 realignment

Figure 1: Junctions assessed in the trigger point analysis



- The trigger point modelling showed that the majority of the assessed highway network would operate within capacity, but also identified the junctions that would be most impacted by the development. The conclusions of the study outlined that further strategic and junction modelling will be required as part of the planning application. A27 J/W Nyton Road must also be included. WSCC advised that the applicant must discuss this Scoping Report with Highways England too. See also note at foot of document regarding modelling and assessment of the existing railway crossing on the A29.

Specifically with regard to junctions 8 and 9 (A259/Shripney Road), the Trigger Point Analysis has already flagged-up likely capacity implications as a result of the BEW development. Following the meeting of 17th July 2019, WSCC officers have discussed this further and as such will require further consideration and assessment of potential solutions to the capacity issues forecast at these junctions within any TA.

TRANSPORT ASSESSMENT MODEL SCOPE

- It is proposed that the transport modelling for the transport assessment should use the updated strategic 2017 CATM to derive traffic flows that will be input into standalone junction models.
- The trigger point analysis and the business case work should mean that the do-minimum model already includes all of the appropriate developments and wider transport infrastructure changes not associated with the BEW development. Clarification is sought from WSCC on what committed developments and

infrastructure changes will be included in the do-minimum model. This should be a tabulated summary. Information should be in Forecasting Report. WSSC officers will report in a separate note any possible changes identified/additions etc. WSSC also advised that the applicant seek the same advice from Arun DC too.

10. It is assumed that the trip generation and trip distribution included in the model will be shared so that these can be agreed prior to undertaking the next stage of strategic modelling. The level of trip internalisation will need to be agreed as these trips will not leave the boundary of the BEW development. The location of the development zone connectors will be agreed as part of the modelling scoping. Trip generation should already be included. Info sent to LEP is public so whatever is in there then that can be made available to the applicant.
11. Six scenarios were considered in the trigger point analysis and these will be built upon for the transport assessment. The scenarios that are proposed include:
 - Scenario 1: Cala development site via a road connection to the existing A29, and 350 dwellings.
 - Scenario 2: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections onto the existing A29 (Cala) and south (Builtform) of the level crossing and at Barnham Road (both northern and southern consortium parcels). 1,250 dwellings included for the BEW development.
 - Scenario 3: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections into the existing A29 and Barnham Road plus the northern section of the new link road between the A29 and Barnham Road. 1,250 dwellings included for the BEW development.
 - Scenario 4: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections into the existing A29 and Barnham Road plus the northern section of the new link road between the A29 and Barnham Road, and Barnham Road through a road link into the Cala site. 1,875 dwellings included for the BEW development.
 - Scenario 5: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections into the existing A29 and Barnham Road plus the northern section of the new link road between the A29 and Barnham Road, Barnham Road through a road link into the Cala site, and plus the section across the railway and connecting through sites R11 and R12. 2,330 dwellings included for the BEW development.
 - Scenario 6: Full build out of the development and completion of the north-south link road, and east-west connections. 4,180 dwellings included for the BEW development.

Applicant to confirm whether these scenarios are to be modelled directly using the Strategic Model.

As a point of information/fact etc., all scenarios are reliant on Junction 11 being built (which is included in Phase 1 of the Strategic Road Scheme that WSSC is building).

For the Southern Sector (so south of Barnham Road, the subject of this Scoping Report) WSSC require a detailed build programme be provided showing development phases and accurate build-trajectory. WSSC also requires specific details in the TATAs showing traffic splits, triggers for specific parts of infrastructure and/or mitigation (and what that infrastructure and mitigation is) to ensure that the WHOLE scheme (particularly the new A29) is shown to be fully deliverable at key times without detrimental effects on both the existing Strategic Network and also other roads (both old and new).

Woodgate Road and its junction with the existing A29 has limitations (e.g. width, geometry, lack of turning facilities on the A29 itself etc.). WSSC will, therefore, require individual impact assessments at certain junctions as part of any modelling work. For any scenarios involving the Cala Homes site currently being considered by Arun DC, the applicant should not consider this development to be a given. Any modelling should consider a 'with-and-without' through-access arrangement for this site.

WSSC is also concerned that through A29 traffic should not be using the east-west internal routes

either north or south of the rail line to the detriment of new or existing residents away from the existing A29. The modelling should clearly show the link flows in these areas and whether temporary vehicular access restrictions at key locations between development served from the old and new A29 routes are required until the A29 southern tie-in is fully opened to traffic.

12. The model scenarios needed for each assessment scenario are as follows. The modelling will need to consider both the AM (8am to 9am) and PM (5pm to 6pm) peak hours.

- Do minimum future year: background growth + committed developments + wider infrastructure changes + other local plan developments and associated infrastructure
- Do something future year: background growth + committed developments + wider infrastructure changes + other local plan developments and associated infrastructure + BEW development + BEW infrastructure

To establish accurate data for noise and air-quality purposes, daily traffic flow figures for the road will also be required.

13. The assessment years for the modelling of the scenarios will need to be agreed as part of the project scoping as this may require interim year transport models to be created. WSCC agree that this would be required. Applicant will need to work with WSP/WSCC to ensure that information sharing etc. and other associated matters remain consistent.

14. The junctions that would be considered in the standalone junction assessments are those shown in Figure 1. The modelling will need to consider both the AM (08:00 to 09:00) and PM (17:00 to 18:00) peak hours. Where the junction currently exists, it is proposed that a manual classified count including queue lengths and saturation flows be undertaken to allow a calibrated base model to be built. It is our understanding that the base model has been calibrated and validated to WebTAG requirements and therefore no additional journey time surveys will be required. Noted.

15. The modelling of the junction performance will be based on actual flows extracted from the CATM. The model outputs provided by WSCC will show the turning movements at each junction being considered in the standalone junction assessments. WSCC can confirm that the SATURN model networks to be provided, currently held by WSP for the County Council, will include forecasted turning movements at major nodes. The nodes to be assessed are within the model validation area for the A29 assessment.

16. Air and noise assessments will be necessary and clarification on the extent of the study area for these is sought. Base year traffic flows and traffic speeds would be determined from automatic traffic counts, and the forecast year traffic flows (actual) and speeds would be extracted from the CATM. Air and noise assessments are based on daily flows. To calculate these accurately from hourly modelled flows will require use of the model inter-peak period, which represents an average hour between 10am and 4pm, in addition to use of the AM and PM peak hour models. WSCC will obtain from WSP the formula used to obtain daily flows from the modelled hourly flows; this is not stated in the model forecasting report. – SEE COMMENTS UNDER 12 ABOVE.

Other information/comments.

- Woodgate railway crossing will need to be factored-in with scenarios without the new A29 bridge being in-place. Therefore, a standalone model should be prepared to ensure it is reflected in any modelling undertaken.
- Sustainable transport and access by and thereto should be considered without any TA/TAs.
- A Travel Plan (or Travel Plans) should form part of any submission. This might depend on how many different applicants there are but for such a large site, a very robust single TP is WSCC's preference.
- Public Rights of Way must be considered throughout the development/s and leading to/from it.
- Stage 1 Road Safety Audits will be required in accordance with WSCC Adopted Road Safety Audit policy.

Stephen Moody

From: Franklin, Richard <[REDACTED]>
Sent: 07 July 2020 16:59
To: Stephen Moody
Cc: Paul Smith; Phil Weatherhead; Tim Townsend; Guy Parfect; Richard Wain; [REDACTED]; Victoria Barrett (Tor) ([REDACTED]); Clare Catherall; Planning SE; Cleaver, Elizabeth; Bowie, David; Bown, Kevin
Subject: RE: #10494 : Barnham Eastergate Westergate - Strategic Modelling Scenarios

Dear Stephen,

Thank you for your email of 16th June 2020 below.

Highways England has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such Highways England 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. Highways England will be concerned with proposals that have the potential to impact on the safe and efficient operation of the SRN, in this case the A27.

Further to David's email below:

- Your email mentions the Cala development site. However, no further details are provided and therefore further clarification would need to be provided in terms of how all the sites are related;
- The scenarios propose are considered acceptable;
- Chapter 7 of Systra's Enterprise Bognor Regis Transport Review 2017 Report (14/11/2017) shows the junctions that the BEW development would affect and hence be required to mitigate as part of the Arun Local Plan. As such, Highways England requires that all of the SRN junctions that the BEW development would affect are modelled, which means that, in addition to those proposed, the following additional SRN junctions would need to be assessed:
 - Whyke A27 / B2145 (Whyke Roundabout);
 - A27 / A259 (Bognor Road Roundabout);
 - A27 / A29 (Fontwell Eastern Roundabout);
 - A27 / A284 Ford Road, Arundel; and
 - A27 / The Causeway (Arundel).

If you have any queries regarding this response, please contact us at:
PlanningSE@highwaysengland.co.uk.

Regards,

Sent on behalf of Elizabeth Cleaver, Assistant Spatial Planning Manager Area 4

Richard Franklin

Highways England | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ

Web: <http://www.highways.gov.uk>

Please note that for the foreseeable future we are all working from home. All meetings will be via telephone, Skype or similar. We will continue to seek to work to our statutory and other deadlines. In case of IT or other issues, as a precaution, please copy all emails to PlanningSE@highwaysengland.co.uk. Thank you.

From: Bowie, David

Sent: 16 June 2020 11:07

To: Stephen Moody <[REDACTED]>

Cc: Paul Smith <[REDACTED]> Phil Weatherhead <[REDACTED]>; Tim Townsend <[REDACTED]> Guy Parfect <[REDACTED]>; Richard Wain <[REDACTED]> Victoria Barrett (Tor) <[REDACTED]>

<[REDACTED]> Clare Catherall <[REDACTED]>; Planning SE

<[REDACTED]>; Franklin, Richard <[REDACTED]>; Cleaver, Elizabeth <[REDACTED]>; Bown, Kevin <[REDACTED]>

Subject: #10494 : Barnham Eastergate Westergate - Strategic Modelling Scenarios

Good morning Stephen,

Thank you for your email and I had taken the opportunity to log this request centrally in any event. Correspondence to Highways England staff in Spatial Planning should always be copied to our central inbox as it is not always possible for individuals to keep track of all communications as we receive large volumes due to covering the entirety of the southeast as well as M25!

As you may expect we are exceptionally busy at the moment and we have a 15 working day response period but always endeavour to respond quicker when we are able. I will review your email as quickly as I can and respond within this timeframe.

Kind regards

David

David Bowie
Area 4 Spatial Planning Manager (Acting)

Highways England | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ

Web: <http://www.highwaysengland.co.uk>

Please note that for the foreseeable future we are all working from home. All meetings will be via telephone, Skype or similar. We will continue to seek to work to our statutory and other deadlines. In case of IT or other issues, as a precaution, please copy all emails to PlanningSE@highwaysengland.co.uk. Thank you.

From: Stephen Moody <[REDACTED]>

Sent: 16 June 2020 10:58

To: Planning SE

Cc: Paul Smith ; Phil Weatherhead ; Tim Townsend ; Guy Parfect ; Richard Wain <[REDACTED]> Bowie, David ; Victoria Barrett (Tor) <[REDACTED]> ; Clare Catherall

Subject: RE: Barnham Eastergate Westergate - Strategic Modelling Scenarios

Hello,

Further to my earlier e-mail to David Bowie, Guy Parfect at WSCC suggested that this should also be forwarded to the HE joint mailbox for the south east Spatial Planning team.

Please see e-mail below regarding the development at Barnham Eastergate Westergate.

Kind regards

Stephen Moody
Associate Transport Planner
5 Manchester Square
London
W1U 3PD

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From: Stephen Moody <[REDACTED]>

Sent: 16 June 2020 10:25

To: [REDACTED]

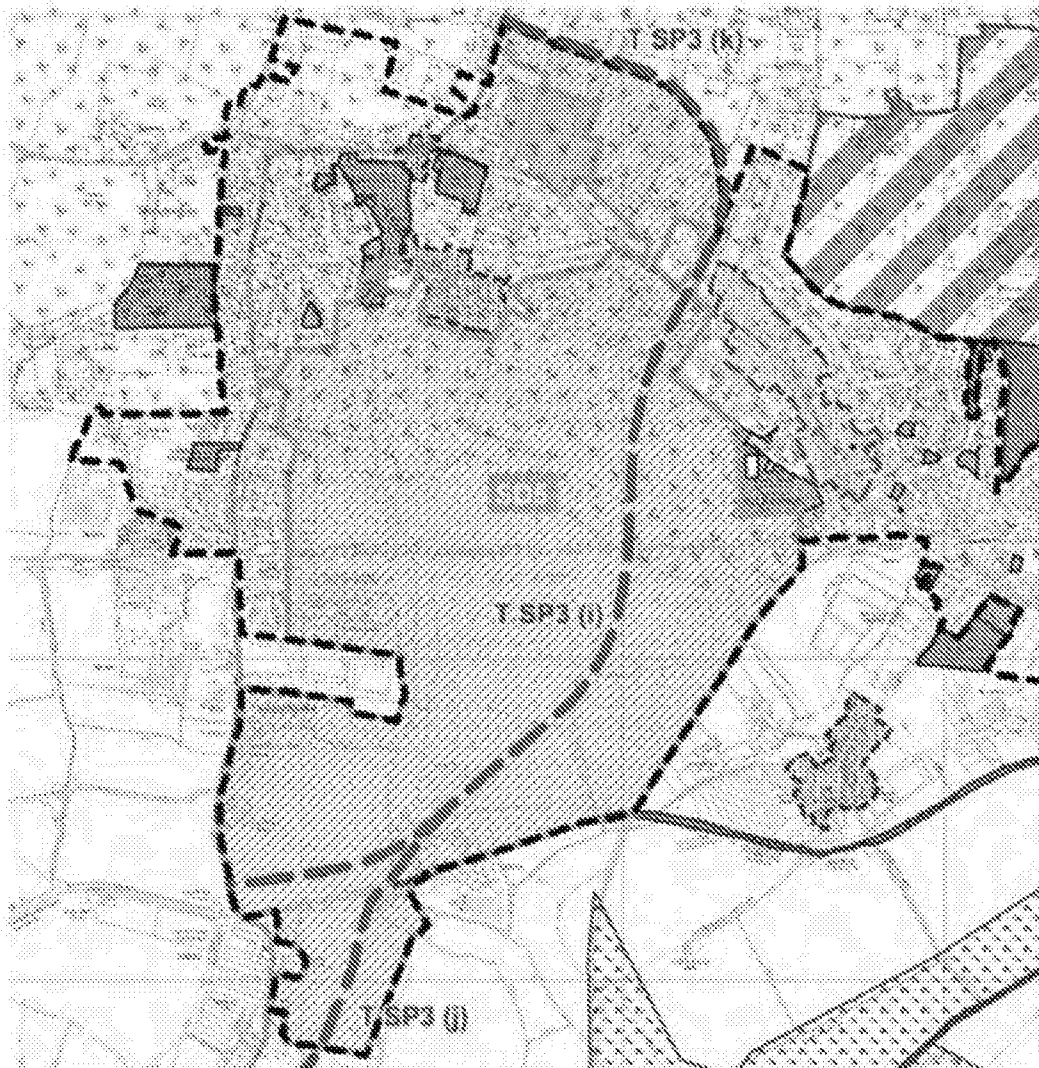
Cc: Paul Smith <[REDACTED]>; Phil Weatherhead <[REDACTED]>; Tim Townsend <[REDACTED]>; Guy Parfekt <[REDACTED]>; Richard Wain <[REDACTED]>; Victoria Barrett (Tor) <[REDACTED]>

Clare Catherall <[REDACTED]>

Subject: Barnham Eastergate Westergate - Strategic Modelling Scenarios

David,

I have been passed your name with regards to discussing and gaining the thoughts of HE on the emerging strategic developments at Barnham Eastergate Westergate. The site is allocated as part of the adopted Arun Local Plan (site SD5), and as part of progressing towards a planning application we have been discussing the scope of the transport assessment with WSCC.



Chapter 12 - Housing Delivery

The intention is to submit a hybrid planning application comprising of two parts:

- Application in outline for residential led development on land north of the railway.
- Application in detail for the extent of the A29 realignment between the junction between the northern section of the A29 and Barnham Road and the junction with the existing A29 at Lidsey Road, including the east-west link between Westergate Street and the realigned A29.



It is considered that the homes north of railway would be built out during this local plan period (by 2031) and land south of the railway would be built out by a later date of 2038. We discussed the scope of the transport assessment and traffic modelling with WSCC last week, and these were broadly agreed, but it was suggested that we also run the proposed scenarios past yourself for agreement.

Outline part of hybrid planning application

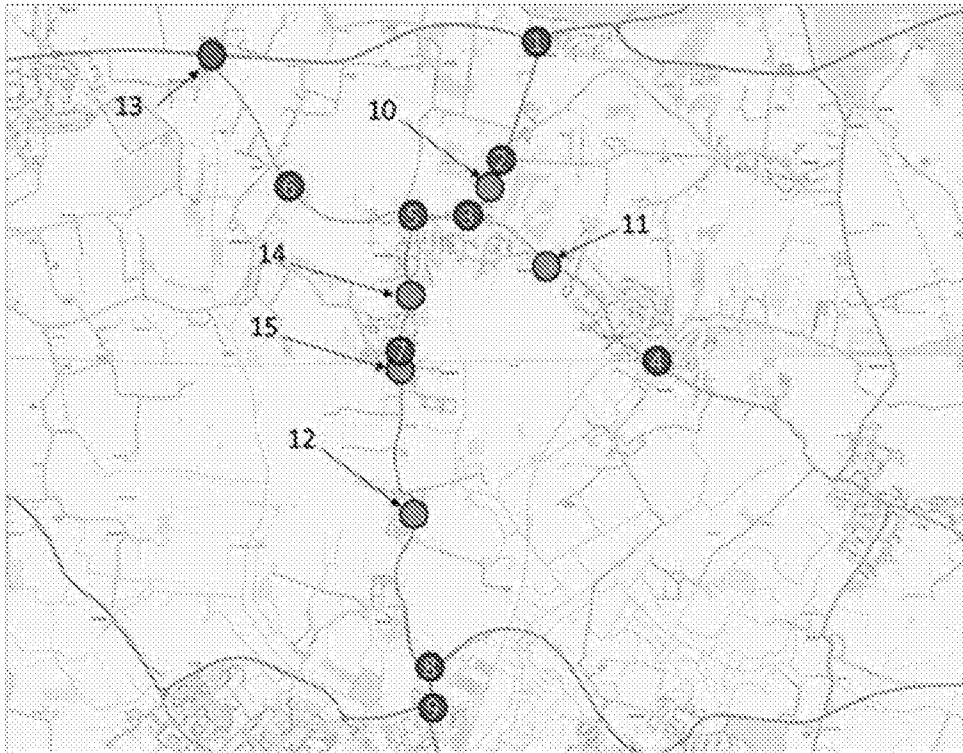
- Development north of the railway:
 - Do something year 2031: background growth + committed developments + wider infrastructure changes + other local plan developments and associated infrastructure + BEW development + BEW infrastructure
- Development south of the railway (without Cala development and east-west link open):
 - Do something year 2031: background growth + committed developments (not including Cala site) + wider infrastructure changes (east-west link not connected to existing A29) + other local plan developments and associated infrastructure + BEW development + BEW infrastructure

Detailed part of hybrid planning application

- A29 realignment and full development build out:
 - Do something year 2038: background growth + committed developments + wider infrastructure changes + other local plan developments and associated infrastructure + BEW development + BEW infrastructure

Could you please confirm that these scenarios would consider the impact of the proposed development to the satisfaction of Highways England?

Other modelling assumptions such as trip rates would be consistent with the modelling developed for the A29 business case, and we are liaising with WSCC to agree other model inputs such as committed developments and scope of the junction assessments. For this planning application, it has been agreed with WSCC that the following junctions be assessed:



Junction number	Junction name
1	A27/ Fontwell Avenue
2	Fontwell Avenue/ Eastergate Lane
3	Fontwell Avenue/ Barnham Road
4	Barnham Road/ Lake Lane
5	Nyton Road/ Westergate Street
6	Nyton Road/ Oving Road
7	Westergate Street/ Hook Lane
8	Shripney Road/ Charles Purley Way
9	Shripney Road/ Rowan Way
10	Fontwell Avenue/ A29 realignment
11	Barnham Road/ A29 realignment
12	Lidsey Road/ A29 realignment
13	Nyton Road/ A27
14	Westergate Street/ Northern access road
15	Lidsey Road/ Southern access road

Many thanks for your assistance with this. If you have other questions regarding the development proposals please let me know.

Kind regards

Stephen

Stephen Moody
Associate Transport Planner
5 Manchester Square
London
W1U 3PD

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Stephen Moody

From: Franklin, Richard <[REDACTED]>
Sent: 01 September 2020 17:13
To: Stephen Moody
Cc: Paul Smith; Phil Weatherhead; Tim Townsend [REDACTED]
Guy Perfect [REDACTED] Richard Wain;
[REDACTED] Victoria Barrett (Tor) [REDACTED] Clare
Catherall; Planning SE; Bown, Kevin; Bowie, David; Cleaver, Elizabeth
Subject: RE: Barnham Eastergate Westergate - Scoping Feedback from Highways England

Dear Stephen,

Thank you for your email below.

Highways England has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the strategic road network (SRN). The SRN is a critical national asset and as such Highways England 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. Highways England will be concerned with proposals that have the potential to impact on the safe and efficient operation of the SRN, in this case, particularly the A27.

In response to the topics raised:

- *Scope of junction assessments* – we are content with the scope outlined below;
- *Historical traffic data for junctions along the A27*
 - For data associated with the Arundel Bypass study (i.e. A27/A284 Ford Road and A27/The Causeway), please contact the Arundel Bypass team (a27arundelbypass@highwaysengland.co.uk);
 - For data associated with the Whyke and Fontwell East junctions, please refer to the transport reports associated with the Pagham sites (Arun references P/134/16/OUT, P/140/16/OUT, P/6/17/OUT and P/25/17/OUT) for Whyke, and Land East of Tye Lane (Arun reference WA/44/17/OUT) for Fontwell East;
 - Given the current Covid-19 situation, we are content for data from HE permanent ATC count sites along the A27 to determine if such historical turning data needs to be factored up accordingly; and
- *Extent of PIA analysis* – we are content with the scope outlined below.

If you have any queries regarding this response, please contact us at PlanningSE@highwaysengland.co.uk.

Regards,
Sent on behalf of Kevin Bown, Spatial Planning Manager Area 4

Highways England | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ

Web: <http://www.highways.gov.uk>

Please note that for the foreseeable future we are all working from home. All meetings will be via telephone, Skype or similar. We will continue to seek to work to our statutory and other deadlines. In case of IT or other issues, as a precaution, please copy all emails to PlanningSE@highwaysengland.co.uk. Thank you.

From: Stephen Moody [REDACTED]
Sent: 11 August 2020 13:39
To: Franklin, Richard <[REDACTED]>
Cc: Bowie, David [REDACTED]; Planning SE <planningse@highwaysengland.co.uk>; Paul Smith [REDACTED] Phil Weatherhead [REDACTED] Tim Townsend [REDACTED]; Guy Parfect [REDACTED] Richard Wain [REDACTED] Victoria Barrett (Tor) [REDACTED] Cleaver, Elizabeth [REDACTED] Bown, Kevin [REDACTED]
Subject: Barnham Eastergate Westergate - Scoping Feedback from Highways England

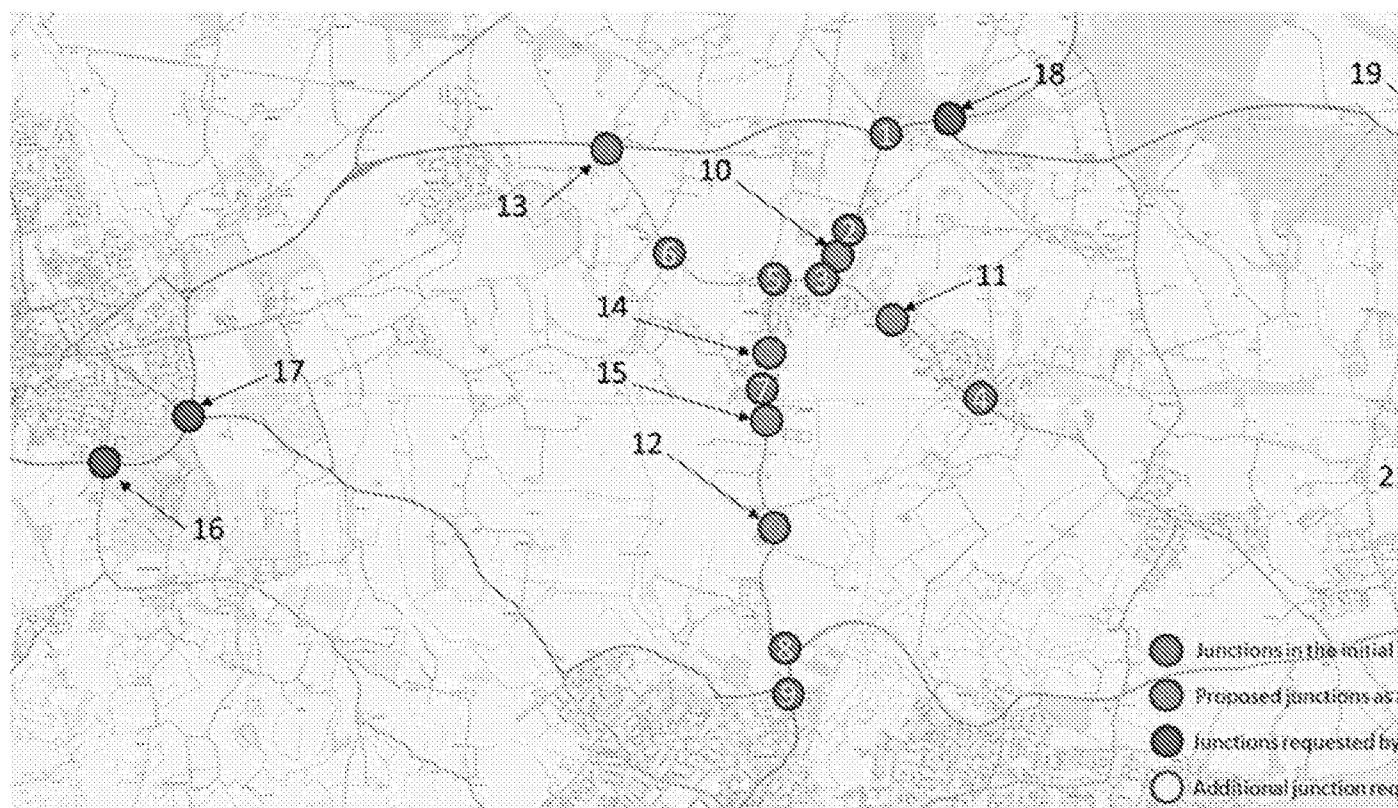
Richard,

I am conscious that there are a few topics that are being raised on the scoping of the BEW transport assessment, so I thought it would be worth consolidating these into one e-mail chain. We would like to follow up and confirm HE agreement on the following topics:

- Scope of junction assessments
- Historical traffic data for junctions along the A27
- Extent of PIA analysis

Scope of junction assessment

The scope of the junction assessments has been expanded to include the junctions you refer to in your e-mail dated 7th July 2020. Subsequent discussions with WSCC has determined that an additional junction on the edge of Littlehampton be included. These are all shown in the figure below for reference.



Historical traffic data for junctions along the A27

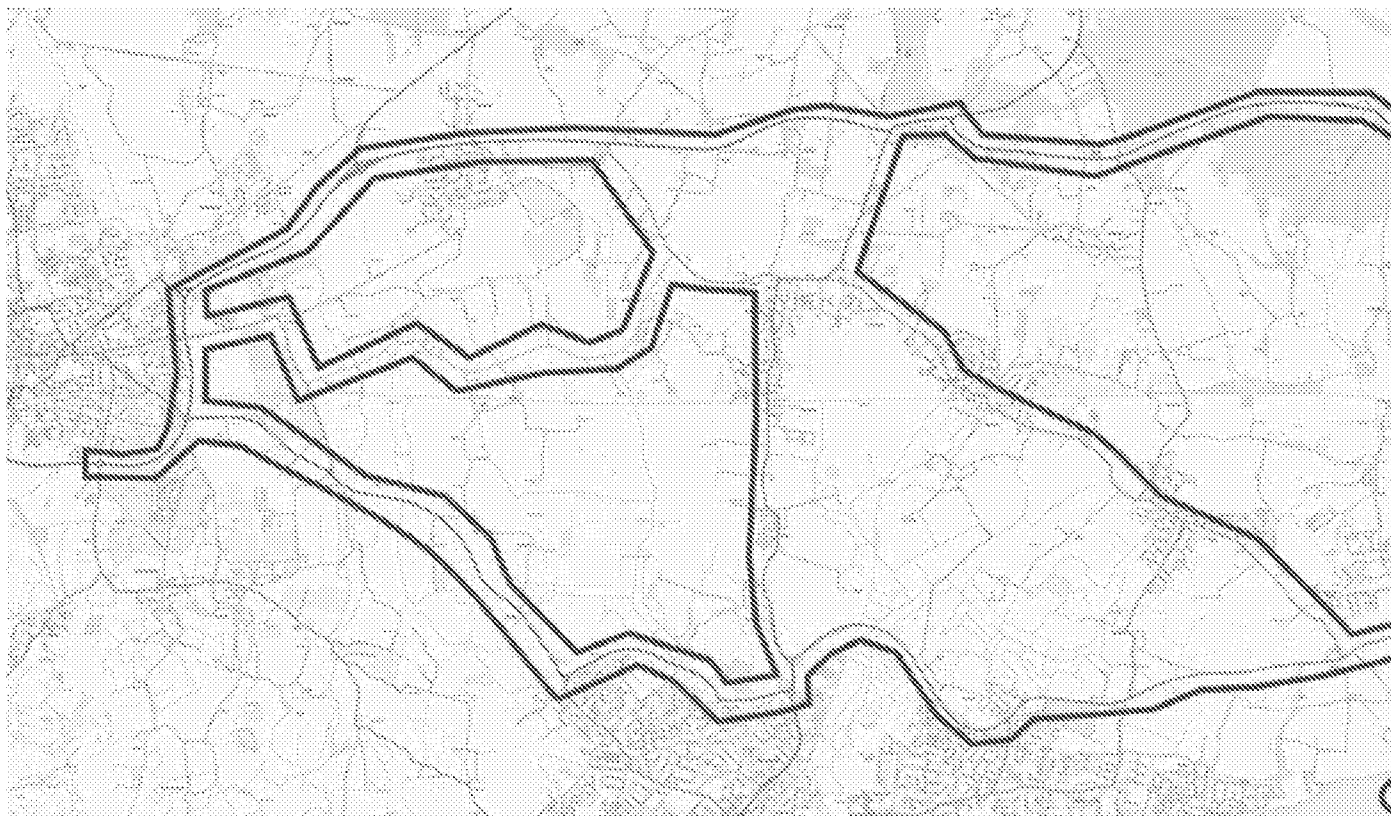
Further to my e-mails of the 22nd July and 3rd August 2020, could you advise on whether HE hold, and can share, traffic data for junctions along the A27? Could you advise on whether manual classified count survey data can be provided for the turning movements at the following junctions please?

- A27/ A284 Ford Road
- A27/ The Causeway
- A27/ B2145 (Whyke Roundabout)
- A27/ A29 (Fontwell Eastern Roundabout)

If this data is not available and in the absence of other baseline traffic data, we have discussed the appropriate junction modelling approach with WSCC for junctions in their network, and it has been agreed that assessments can be based on the outputs from the strategic traffic model forecast years only. A copy of this email correspondence is attached. It is assumed that HE would also agree to this approach for junctions in the strategic road network given the current constraints of Covid-19?

Extent of PIA analysis

We have been discussing the scope of the PIA review with WSCC and they have confirmed the area shown in the figure below should be considered for the latest available 10 year period. This covers the A27 junctions that we have been asked to model and the section of road between them. Could you please confirm that this covers the requirements of HE?



Many thanks for your assistance with this.

Kind regards

Stephen Moody
Associate Transport Planner
5 Manchester Square
London
W1U 3PD



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<https://www.gov.uk/government/organisations/highways-england> | info@highwaysengland.co.uk

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Stephen Moody

From: Tim Townsend <tim.townsend@westsussex.gov.uk>
Sent: 13 July 2020 15:25
To: Stephen Moody; Guy Parfect
Cc: Paul Smith; Richard Wain; Izzy.Grigg [REDACTED]; Joanna Loxton [REDACTED]; 'Joe Godfrey'; Clare Catherall; Victoria Barrett (Tor) [REDACTED]; Steven Shaw; Stephen Gee; Elaine Martin; Darryl Hemmings; ja [REDACTED] a [REDACTED]
Subject: RE: Transport assessment and modelling scoping, and model access request
Attachments: Commitments 2020 - BEW and Surrounding Areas.xlsx; BEW Transport Modelling DRAFT Scoping Note_20190529 with WSCC comments d....docx; BEW Transport Assessment Scoping Note_20200511 with TT comments June 2020.docx

Dear Stephen,

Thank you for your email of 13th May 2020 found below. I also refer to our meeting of 12th June 2020.

Please find below comments in response to the items raised. Please also find attached a version of the TA Scoping Report with West Sussex Highways comments added to it (in red *italic* text). As always, any comments made at the pre-app stage are made entirely without prejudice to any further responses that WSCC might make in response to either additional pre-app or actual planning applications. Finally, for both documents, you are also advised to seek comments separately from Highways England.

Strategic Modelling Scope.

This is acceptable to WSCC. Clearly, there will be the need to factor-in the relevant comments/points made below and the information supplied by Alex from WSP. You've already received details of allocations/permission for the Arun area as supplied by Guy in his email to you of 8th June 2020. In an attempt to keep all relevant information together, I have attached the Excel spreadsheet supplied in that email. However, do be mindful of the caveats attached to the latter about the information being provisional at this moment-in-time etc. See also point 5 below and the content it refers to.

Some relevant points:

- Model access agreed – PF now have the model reporting (sent to Stephen directly).
- Scope of roads and junctions to include are agreed.
- Model scenarios agreed – all scenarios include the Northern Consortium development and the northern part of the A29 Realignment scheme
 - the two intermediate scenarios are for 1875 homes situated north of the rail line and south of Barnham Road. One includes the Cala homes site and east-west link, the other excludes these.
 - The final scenario is for 4180 homes across the full site and including the full A29 Realignment scheme. However, please note that in this scenario where numbers exceed that referenced in the Local Plan, that you might need to consider the scope of junction assessment be widened from that shown in Figure 1. You should also raise this point with Highways England (HE) too.
- On the intermediate scenarios, you should assess the impact of the additional homes on the Woodgate Level Crossing. As confirmed at the meeting, this can be done by "first principles" rather than by creating a model (model assessment of level crossings could be through Linsig or a microsim). It is understood this to effectively mean

extrapolating the existing observed traffic queues and delays (from existing survey data pre-covid) in proportion to the increase in traffic flow.

- Do bear in-mind that the proposed scenarios should not be used as a proxy for any significant variation to the housing distribution or road access arrangements which may come forward in future. In particular, should any housing south of the rail line come forward in advance of the 1875 dwellings north of the line and/or the new A29 bridge and tie-in to A29 Lidsey Rd, this would require a new model test / TA.
- The document proposes using AM and PM peak runs. This is fine for a general TA, but will be a less accurate source of forecasting daily flows for the southern A29 to use in the environmental assessment for that application regarding noise and air quality and the structural design of the road, if an inter-peak run is not added whilst the model access is in place.

With regard to the future modelling years (2031 or 2038), you will come back to us when Highways England have stated their requirements. As far as we are aware, David Bowie is your contact there.

Replies to questions asked by Pell Frischmann at meeting of 12th June (some questions raised in Presentation document – 'BEW Strategic Modelling Scoping Meeting' – 12/06/2020).

- 1. Speed limits for new A29** – Elaine Martin has confirmed that the northern section will be subject to a 30mph speed limit. For the southern part (so Barnham Road to Lidsey Road running through the Southern Consortium land), this should be designed to accommodate a 30mph limit for the section from Barnham Road to beyond the proposed rail bridge up to a point where the frontage development is shown as being less-frequent. At this stage, it should be modelled at 40mph. Ultimately, the design of the road will inform the speed limits but most recent discussions around the Masterplan have focused on this arrangement.
- 2. Internal roads speed limits** – The principles of Manual for Streets (MfS) should be applied to the design of roads forming the internal estate road layouts and roads leading off the new A29. A 20mph design speed should be demonstrated for these roads.
- 3. Proposed new A29 - Barnham Road to Fontwell Avenue (otherwise known as northern section of new A29) – Estimated dates for submission of planning application and start-date for road** – Planning application submission is planned for August 2020 with decision expected September/October 2020. Planned start date for road is April 2021. Planned completion date is August 2021.
- 4. Contact in Transport Bureau for bus services** – Bill Leath is your initial point of contact here at County. His direct dial is: 03302225438; Email: bill.leath@westsussex.gov.uk
- 5. Alex Georgeson (WSP) list of modelling requirements, access to model etc.** – See GP's email of 13th July 2020 sent directly to you.
- 6. Trip methodology** – Solely for the *residential* element highlighted with a red border under sub-heading 'Proposed development and associated assumptions' in the Presentation, the trip rates stated there are acceptable to WSCC. However, should any proposed housing 'mix' alter from this, then WSCC reserve the right to re-consider this. In any event, you would need to demonstrate suitability of anything put-forward.
- 7. Railway level crossing assessment** – As stated above, the 'first principles' approach as outlined in the Presentation document is acceptable to WSCC.

WSCC pre-application response dated 31/07/2019 (in response to DRAFT Scoping Note from Pell Frischmann dated May 2019) – copy attached.

You have included this alongside your presentation. Clearly a number of points made by WSCC then have found their way into your latest Scoping documents, which is

welcomed. However, do ensure that any points from that document not currently referenced in the latest documents are adhered to as work progresses, please.

Phasing of development and construction of new A29.

This is a key matter that requires further discussion when modelling has been undertaken. Please note that although the modelling is a large component of this, there will be other factors informing delivery of the road. WSCC assume delivery of the road (in full) between Barnham Road and the existing A29 south of Shripney Bends will be by the Southern Consortium.

I trust my comments are helpful. Should you wish to discuss them, do contact me again.

Regards,

Tim

Tim Townsend, MCIHT

Principal Planner, County Highways Team – Highways, Transport and Planning

West Sussex County Council, Ground Floor Northleigh, County Hall, Chichester PO19 1RQ

Phone: (External) 03302 225726 (Internal) 25726

Email: tim.townsend@westsussex.gov.uk

Web: www.westsussex.gov.uk

From: Stephen Moody [mailto:
Sent: 13 May 2020 11:48
To: Guy Perfect; Tim Townsend
Cc: Paul Smith; Richard Wain; Izzy.Grimshaw@westsussex.gov.uk; Joanna Loxton
(joanna.loxton@westsussex.gov.uk); Joe Godfrey; Clare Catherall; Victoria Barrett (Tor)
(
Subject: BEW: Transport assessment and modelling scoping, and model access request

Hi Guy/ Tim,

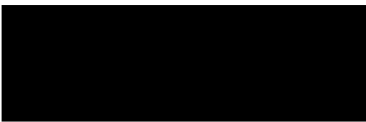
Further to recent correspondence regarding the scoping of the modelling, a note consolidating these discussions is attached. In addition, attached is a scoping note for broader requirements of the transport assessment, and as requested an A29 model access request letter.

Can we please set up a meeting to discuss the next steps once you have had a chance to review the attached?

Kind regards

Stephen

Stephen Moody
Associate Transport Planner
5 Manchester Square
London
W1U 3PD



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Pell Frischmann		Project No. A13394
		Version No. Final
SCOPING NOTE	Project Barnham Eastergate Westergate (BEW)	Date May 2020
Subject Transport assessment scoping note <i>(with WSCC comments – June 2020)</i>		By S. Moody P. Smith

INTRODUCTION

1. This note has been prepared to set out the proposed scope of the transport assessment for the Barnham Eastergate Westergate (BEW) development, which will support the planning application for both the site and the realigned A29. The scope of the assessment is based on WSCC Transport Assessment Methodology (June 2007).
2. This note is issued in conjunction with a more detailed note that sets out the scope for the proposed traffic modelling.

DEVELOPMENT BACKGROUND AND PLANNING APPLICATION APPROACH

3. The strategic site at Barnham, Eastergate and Westergate is allocated within the adopted Arun District Council Local Plan. The proposed realignment of the A29 and the provision of an east-west link forms part of this allocation. It is understood that funding has been secured for the initial section of the A29 realignment between Fontwell Avenue and the junction between the A29 and Barnham Road.
4. The approach to the proposed planning application is for a hybrid application to be submitted. These are:
 - Outline planning application for residential led development on land north of the railway, including the east-west link between Westergate Street and the realigned A29.
 - Full detailed planning application for the southern extent of the A29 realignment between the junction between the northern section of the A29 and Barnham Road and the junction with the existing A29 at Lidsey Road.

The masterplan for the residential led development is currently being prepared, and therefore the exact quantum of development will be confirmed shortly.

POLICY CONTEXT

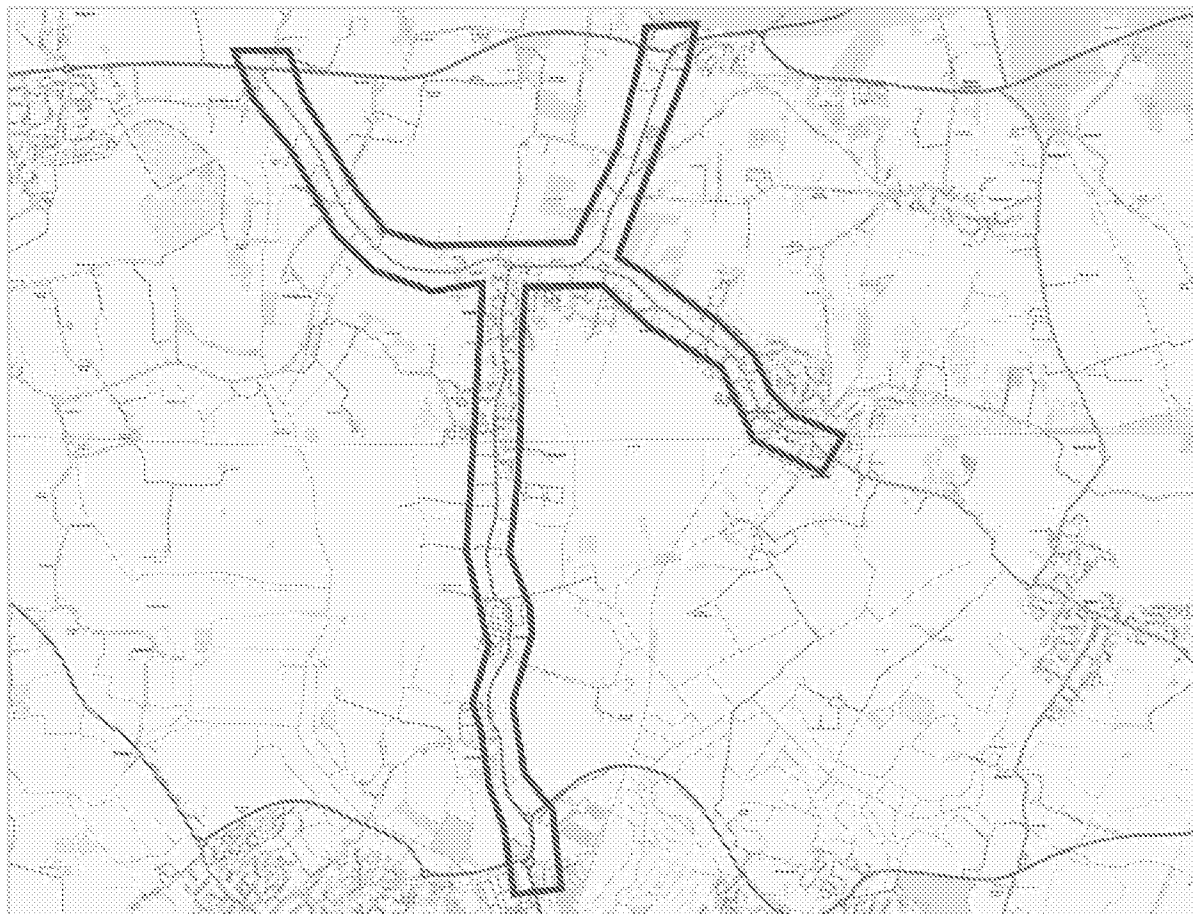
5. The following policies would be reviewed as part of the transport assessment:
 - National Planning Policy Framework (updated February 2019)
 - National Planning Guidance: Travel Plans, Transport Assessments and Statements (March 2014)
 - The Arun Local Plan 2011-2031 (adopted 2018)
 - West Sussex Transport Plan 2011-26 (LTP3)
 - Barnham and Eastergate Neighbourhood Plan (approved in 2014)

BASELINE TRANSPORT CONDITIONS AND SITE ACCESSIBILITY

6. The accessibility of the site will be considered to review the baseline transport conditions and ability to access local services (food retail, health, employment and education).

7. The local walking, cycling and public transport networks will be considered in terms of the routes available, frequency of service, and quality of provision (e.g. facilities at bus stops). *Include reference to any new facilities proposed.*
8. A review of the personal injury accidents will also be undertaken to establish whether there are any safety issues identified. It is proposed that the review cover the area shown in Figure 1 for the latest available five year period. *For Highways England (HE), they might require further analysis (normally 10 years).*

Figure 1: Extent of accident analysis



PROPOSED DEVELOPMENT

9. This chapter of the transport development will provide the detail of the proposed development, including:
 - Site location
 - Existing and proposed use of the site
 - The masterplan for the development
 - Site access
 - Sustainable transport proposals and strategy. *Strong emphasis shall be given to non-motorised routes – particularly those that run E-W and N-S through the site (and off-site connections thereto) - connecting to key attractors such as schools and the railway station. The Church Lane to Barnham Railway Station and St. Phillip Howard School route should be included.*

WSCC would encourage priority for NMUs over motor vehicles, particularly along routes that are likely to be heavily used. One example of this is along the shared use path in the north of the site that links to St Philip Howard School. In this case a grade separated crossing to provide a traffic-free route would be preferred given the number of vulnerable users expected to use this route. A

second key route for NMU priority is the shared use path/pathis along the new A29. In order to encourage the use of this route by NMUs, we would want to avoid road junctions segmenting this route by giving NMUs priority over motor vehicles at junctions with side roads, when it is safe to do so. Placement of any bus infrastructure should also be considerate of this shared use path.

Given the scale of the development it is likely that key road junctions offsite will also need a degree of improvement works. The timing of these improvements should reflect predicted traffic flow from both background flow increases and from construction and inhabitation rates.

Public Transport

WSCC would strongly recommend consulting with the bus operators in this area to understand what bus service provision is viable for the proposed development, and what their infrastructure needs may be. We would particularly encourage a good frequency of bus service to provide a genuine alternative to private motor vehicle.

Once an appropriate bus service has been agreed with the bus operators, we would encourage the provision of quality bus infrastructure, including RTP1 screens and bus priority measures along bus routes.

Active Transport

WSCC note the dedicated footways and shared use paths. We understand that although this may be a more detailed matter, we would suggest that there could be additional permeability of pedestrian and cycle routes through the blocks of housing development to provide direct journey opportunities for NMUs.

Clarification should be given when using the term 'Footpath' whether it is a new Public Right of Way that is being proposed or a footway. It would be beneficial to also clarify whether there is potential to upgrade the existing PROW footpaths to bridleways, as this will affect the width of the land and surfacing required, as well as the users that may utilise these routes. Potential changes to permissions would provide most benefit where PROW footpaths meet with cycle routes such as in the vicinity of the Six Villages Academy and the St Philip Howard School. WSCC would also recommend considering appropriate wayfinding throughout the site.

There is a need to show how the pedestrian and cycle facilities, including PROW, will form a network of connected routes within and beyond the development.

External connections should be considered such as railway crossings to the east to improve east-west connectivity in the vicinity of the southern community hub to provide benefits to the wider community and provide a safer connection along the Chichester and Arundel Canal Footpath route towards Yapton.

As a general comment for all modes of sustainable transport, connections beyond the site should be considered for the wider six villages region as well as Fontwell, given that the BEW healthcare facilities, required within the Arun District Local Plan policy, should also support strategic development in Fontwell. In its role as the Local Highway Authority WSCC will contribute potential transport improvements through its discussions with key stakeholders and input into the District Infrastructure Delivery Plan and other delivery documents.

- Car and cycle parking provision
- New A29 road scheme proposals

TRAFFIC MODELLING

10. The scope of the traffic modelling is covered in a separate more detailed scoping note. The extent of that note subjects including:

- Traffic access
- Existing network traffic
- Network traffic growth

- Vehicular traffic generation
- Traffic distribution and assignment
- Highway capacity impact assessment using the strategic model
- Junction capacity assessments
- » *Impact of and on the railway crossing at Woodgate*

ROAD NETWORK IMPACT MITIGATION STRATEGY

11. At this stage the extent of highway mitigation measures required is unknown as this will be determined using outputs from the strategic and junction modelling.
12. If required, the scope of mitigation measures will be discussed with WSCC following receipt of strategic model outputs and findings from the junction capacity assessments.

FRAMEWORK TRAVEL PLAN

13. A framework travel plan will be prepared for the residential component of the development. This will set out the overarching objectives for the scheme, including action plan measures and preliminary targets.

Standard highways information required by WSCC as Highway Authority as part of any planning application (some of this will repeat points made above).

- » *A site location plan scale (1:1250) with site boundary indicated.*
- » *Schedule of existing uses including planning history with reference numbers.*
- » *Description, including site layout plans, of the proposed development and schedule of uses.*
- » *Summary of reasons supporting the site access/highways works proposals, including plan (scale 1:250 or similar) with achievable visibility splays indicated.*
- » *Design Audit of proposed Highway works, including plan with any identified departures from standards.*
- » *Final Stage 1 Road Safety Audit of proposed access and highway works including any other works on the highway and Road Safety Audit Log undertaken in accordance with GG119, including amended plans.*
- » *A 'Transport Assessment', including location plan of key services, availability of sustainable modes of transport and existing and future traffic generation.*
- » *A non-motorised survey in accordance with GG 142. The scope of this should be discussed and agreed with the Highway Authority before it is undertaken.*
- » *Consideration of Public Rights of Way routes in the locality, including any improvements identified as necessary to facilitate and/or assist with access to the development. Again, scope to be discussed and agreed with Highway Authority prior to work beginning.*
- » *Reference to supporting national, regional, and local planning documents and policies.*
- » *Parking strategy, including provision of parking for all modes of transport including EV spaces and charging points.*
- » *Relevant data collected to date.*
- » *Proposed trip rates supported with TRICS outputs and site selection methodology.*
- » *Latest records of personal injury accidents for the most up-to-date 10 year period for roads and junctions affected by development (please contact Highways England directly for their requirements given the proximity and impact on the nearby A27 Trunk Road).*

- * Consideration of committed developments in the locality and any Local Plan/Core Strategy allocations (including future proposed allocations currently being considered for a future Local Plan) and traffic impact thereof.
- * Consideration of on and off-site mitigation required to deliver the development.
- * Street lighting.

Standard guidance relating to road design and current standards.

There are two sets of guidance which govern road design: Manual for Streets (MfS) for lightly trafficked residential streets; and Design Manual for Roads and Bridges (DMRB) for all other roads, including rural roads. Links to both are provided below.

WSCC supports the approach set out in MfS, which has been adopted guidance for residential street design since its introduction in 2007. Within this document there are some useful references to visibility splays, turning circles and car parking layouts. The document does not however provide specific measurements for visibility splays, so:

"X" Distances from the (kerb back) are typically:

- * 2.0 metres -domestic single accesses
- * 2.4 metres- for shared or busy crossovers
- * 4.5 metres- for busy junctions
- * 9.0 metres-major junctions

"Y" Distances are based on vehicle speed, and for lightly trafficked residential streets MfS would be applied:

- * 20 mph- 25 metres
- * 25 mph- 33 metres
- * 30 mph- 43 metres

For a road where the 85th percentile speed is in excess of 37 mph and for roads where MfS does not apply, TD/93 distances from DMRB would be applied:

- * 40 mph-120 metres
- * 50 mph-160 metres
- * 60 mph-215 metres

A link to the WSCC Local Design Guide is found below. This provides further advice on how MfS is to be interpreted and applied within West Sussex.

Manual for Streets:

<http://www2.dft.gov.uk/pgr/sustainable/manforstreets/pdf/manforstreets.pdf>

DMRB

https://www.standardsforhighways.co.uk/dmrb/search?discipline=ROAD_LAYOUT

Local Design Guide:

http://www.westsussex.gov.uk/leisure/getting_around_west_sussex/roads_and_pathways/plans_and_projects/development_control_for_roads/local_design_guide.aspx

Other information.

S106 and CIL -- Will be considered through the planning process to secure appropriate infrastructure requirements – both highways and non-highways.

Road adoption and management of non-adopted streets and associated infrastructure -- If roads are to be offered for adoption under a Section 38 Agreement, they will need to meet current WSCC specifications. For roads and associated infrastructure not being offered for adoption, a Management Company will need to be provided by the developer and/or their successors and be secured via a S106 Agreement to ensure long-term maintenance arrangements for the scheme. Also, non-adoption clauses would also need to be included in any S106 Agreement to prevent such infrastructure being offered to the County Council for adoption post-construction.

Pell Frischmann		Project No. A13394
		Version No. Draft 1
SCOPING NOTE	Project Barnham Eastergate Westergate (BEW)	Date May 2019
Subject Traffic modelling scoping note		By S. Moody P. Smith

INTRODUCTION

1. This note has been prepared to set out the proposed scope of traffic modelling for the Barnham Eastergate Westergate (BEW) development. The proposed traffic modelling will inform the transport assessment which will support the planning application for both the site and the realigned A29. The proposed modelling will build upon the technical work that has been undertaken to date both by Pell Frischmann and WSP on behalf of WSCC, and this scoping note seeks to agree the extent of the junction modelling that is required to support the planning applications.
WSCC require sight of a proposal (or proposals) from the developer showing their preferred thoughts of how they see the application (or applications) being submitted, what they will include (and who will be submitting them). When received, WSCC will consider the information and after taking legal advice, will then reply. Paragraph 1 above implies both will be submitted by the developer.
2. Initial traffic modelling was undertaken in 2016 as part of the site promotion within the local plan; the assessment was undertaken using traffic flows derived from the Arun Transport Study (ATS) commissioned by Arun District Council (ADC) and undertaken by Systra. Subsequently the BEW site was allocated within the ADC Local Plan, which also sets out the proposed realignment of the A29 which passes through the BEW development. Noted.
3. To inform the phasing of the BEW development and associated infrastructure, a Trigger Point Modelling assessment was undertaken by WSP on behalf of WSCC using the updated 2017 Chichester Area Transport Model (CATM). The CATM is a SATURN model and was recently updated to inform the business case for the A29 realignment scheme which was completed in February 2019. This included a refined zone system and road network to cover the BEW development. The Access and charging protocol is required to be followed for use of the model. GP has advised and provided copies of the terms and conditions; please note that this is being reissued with minor updates, which supersede the paper version issued at the meeting. This does not affect the charging scale. Pell Frischmann also confirmed that they are involved with the Masterplanning of the Southern Consortium's allocation, drainage and internal design work and planning layouts etc. as well as the TA's for the scheme and specific parcels as required. As such, WSCC recommends that the applicant continues engagement with the relevant Highways and Planning Authorities through the pre-application process.
4. The base year model network was calibrated and adjusted where appropriate. Once the calibration was complete the model flows and journey times were compared with observed data to validate the model. The results of this fulfilled the DfT WebTAG model validation criteria. Full details of this are available in the A29 Local Model Validation Report (October 2018). Noted. Under the terms of the model Access and Charging Protocol the County Council will supply this report in advance of model access without charge.
5. Forecast year models were developed for forecast years of 2023 and 2038 to represent the year of the A29 opening and design year respectively. Further information on the forecast models is available in the A29 Realignment Traffic Forecasting Report (January 2019). Noted. Under the terms of the model Access and Charging Protocol the County Council will supply this report in advance of model access without charge.
6. The trigger point modelling considered six development and infrastructure scenarios and assessed the

performance of the junctions listed in Table 1 and shown in Figure 1.

Table 1: Junctions assessed in the trigger point analysis

Junction number	Junction name
1	A27/ Fontwell Avenue
2	Fontwell Avenue/ Eastergate Lane
3	Fontwell Avenue/ Barnham Road
4	Barnham Road/ Lake Lane
5	Nyton Road/ Westergate Street
6	Nyton Road/ Oving Road
7	Westergate Street/ Hook Lane
8	Shripney Road/ Charles Purley Way
9	Shripney Road/ Rowan Way
10	Fontwell Avenue/ A29 realignment
11	Barnham Road/ A29 realignment

12	Westergate Street/ Northern access road
13	Lidsey Road/ Southern access road
14	Lidsey Road/ A29 realignment

Figure 1: Junctions assessed in the trigger point analysis



- The trigger point modelling showed that the majority of the assessed highway network would operate within capacity, but also identified the junctions that would be most impacted by the development. The conclusions of the study outlined that further strategic and junction modelling will be required as part of the planning application. A27 J/W Nyton Road must also be included. WSCC advised that the applicant must discuss this Scoping Report with Highways England too. See also note at foot of document regarding modelling and assessment of the existing railway crossing on the A29.

Specifically with regard to junctions 8 and 9 (A259/Shripney Road), the Trigger Point Analysis has already flagged-up likely capacity implications as a result of the BEW development. Following the meeting of 17th July 2019, WSCC officers have discussed this further and as such will require further consideration and assessment of potential solutions to the capacity issues forecast at these junctions within any TA.

TRANSPORT ASSESSMENT MODEL SCOPE

- It is proposed that the transport modelling for the transport assessment should use the updated strategic 2017 CATM to derive traffic flows that will be input into standalone junction models.
- The trigger point analysis and the business case work should mean that the do-minimum model already includes all of the appropriate developments and wider transport infrastructure changes not associated with the BEW development. Clarification is sought from WSCC on what committed developments and

infrastructure changes will be included in the do-minimum model. This should be a tabulated summary. Information should be in Forecasting Report. WSCC officers will report in a separate note any possible changes identified/additions etc. WSCC also advised that the applicant seek the same advice from Arun DC too.

10. It is assumed that the trip generation and trip distribution included in the model will be shared so that these can be agreed prior to undertaking the next stage of strategic modelling. The level of trip internalisation will need to be agreed as these trips will not leave the boundary of the BEW development. The location of the development zone connectors will be agreed as part of the modelling scoping. Trip generation should already be included. Info sent to LEP is public so whatever is in there then that can be made available to the applicant.
11. Six scenarios were considered in the trigger point analysis and these will be built upon for the transport assessment. The scenarios that are proposed include:
 - Scenario 1: Cala development site via a road connection to the existing A29, and 350 dwellings.
 - Scenario 2: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections onto the existing A29 (Cala) and south (Builtform) of the level crossing and at Barnham Road (both northern and southern consortium parcels). 1,250 dwellings included for the BEW development.
 - Scenario 3: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections into the existing A29 and Barnham Road plus the northern section of the new link road between the A29 and Barnham Road. 1,250 dwellings included for the BEW development.
 - Scenario 4: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections into the existing A29 and Barnham Road plus the northern section of the new link road between the A29 and Barnham Road, and Barnham Road through a road link into the Cala site. 1,875 dwellings included for the BEW development.
 - Scenario 5: Cala development site plus development on sites within both the northern and southern consortium land ownership. Road connections into the existing A29 and Barnham Road plus the northern section of the new link road between the A29 and Barnham Road, Barnham Road through a road link into the Cala site, and plus the section across the railway and connecting through sites R11 and R12. 2,330 dwellings included for the BEW development.
 - Scenario 6: Full build out of the development and completion of the north-south link road, and east-west connections. 4,180 dwellings included for the BEW development.

Applicant to confirm whether these scenarios are to be modelled directly using the Strategic Model.

As a point of information/fact etc., all scenarios are reliant on Junction 11 being built (which is included in Phase 1 of the Strategic Road Scheme that WSCC is building).

For the Southern Sector (so south of Barnham Road, the subject of this Scoping Report) WSCC require a detailed build programme be provided showing development phases and accurate build-trajectory. WSCC also requires specific details in the TA/TAs showing traffic splits, triggers for specific parts of infrastructure and/or mitigation (and what that infrastructure and mitigation is) to ensure that the WHOLE scheme (particularly the new A29) is shown to be fully deliverable at key times without detrimental effects on both the existing Strategic Network and also other roads (both old and new).

Woodgate Road and its junction with the existing A29 has limitations (e.g. width, geometry, lack of turning facilities on the A29 itself etc.). WSCC will, therefore, require individual impact assessments at certain junctions as part of any modelling work. For any scenarios involving the Cala Homes site currently being considered by Arun DC, the applicant should not consider this development to be a given. Any modelling should consider a 'with-and-without' through-access arrangement for this site.

WSCC is also concerned that through A29 traffic should not be using the east-west internal routes

either north or south of the rail line to the detriment of new or existing residents away from the existing A29. The modelling should clearly show the link flows in these areas and whether temporary vehicular access restrictions at key locations between development served from the old and new A29 routes are required until the A29 southern tie-in is fully opened to traffic.

12. The model scenarios needed for each assessment scenario are as follows. The modelling will need to consider both the AM (8am to 9am) and PM (5pm to 6pm) peak hours.

- Do minimum future year: background growth + committed developments + wider infrastructure changes + other local plan developments and associated infrastructure
- Do something future year: background growth + committed developments + wider infrastructure changes + other local plan developments and associated infrastructure + BEW development + BEW infrastructure

To establish accurate data for noise and air-quality purposes, daily traffic flow figures for the road will also be required.

13. The assessment years for the modelling of the scenarios will need to be agreed as part of the project scoping as this may require interim year transport models to be created. WSCC agree that this would be required. Applicant will need to work with WSP/WSCC to ensure that information sharing etc. and other associated matters remain consistent.

14. The junctions that would be considered in the standalone junction assessments are those shown in Figure 1. The modelling will need to consider both the AM (08:00 to 09:00) and PM (17:00 to 18:00) peak hours. Where the junction currently exists, it is proposed that a manual classified count including queue lengths and saturation flows be undertaken to allow a calibrated base model to be built. It is our understanding that the base model has been calibrated and validated to WebTAG requirements and therefore no additional journey time surveys will be required. Noted.

15. The modelling of the junction performance will be based on actual flows extracted from the CATM. The model outputs provided by WSCC will show the turning movements at each junction being considered in the standalone junction assessments. WSCC can confirm that the SATURN model networks to be provided, currently held by WSP for the County Council, will include forecasted turning movements at major nodes. The nodes to be assessed are within the model validation area for the A29 assessment.

16. Air and noise assessments will be necessary and clarification on the extent of the study area for these is sought. Base year traffic flows and traffic speeds would be determined from automatic traffic counts, and the forecast year traffic flows (actual) and speeds would be extracted from the CATM. Air and noise assessments are based on daily flows. To calculate these accurately from hourly modelled flows will require use of the model inter-peak period, which represents an average hour between 10am and 4pm, in addition to use of the AM and PM peak hour models. WSCC will obtain from WSP the formula used to obtain daily flows from the modelled hourly flows; this is not stated in the model forecasting report. -- SEE COMMENTS UNDER 12 ABOVE.

Other information/comments.

- Woodgate railway crossing will need to be factored-in with scenarios without the new A29 bridge being in-place. Therefore, a standalone model should be prepared to ensure it is reflected in any modelling undertaken.
- Sustainable transport and access by and thereto should be considered without any TA/TAs.
- A Travel Plan (or Travel Plans) should form part of any submission. This might depend on how many different applicants there are but for such a large site, a very robust single TP is WSCC's preference.
- Public Rights of Way must be considered throughout the development/s and leading to/from it.
- Stage 1 Road Safety Audits will be required in accordance with WSCC Adopted Road Safety Audit policy.

Pell Frischmann		Project No. A13394
		Version No. Final
SCOPING NOTE	Project Barnham Eastergate Westergate (BEW)	Date May 2020
Subject Transport assessment scoping note		By S. Moody P. Smith

INTRODUCTION

1. This note has been prepared to set out the proposed scope of the transport assessment for the Barnham Eastergate Westergate (BEW) development, which will support the planning application for both the site and the realigned A29. The scope of the assessment is based on WSCC Transport Assessment Methodology (June 2007).
2. This note is issued in conjunction with a more detailed note that sets out the scope for the proposed traffic modelling.

DEVELOPMENT BACKGROUND AND PLANNING APPLICATION APPROACH

3. The strategic site at Barnham, Eastergate and Westergate is allocated within the adopted Arun District Council Local Plan. The proposed realignment of the A29 and the provision of an east-west link forms part of this allocation. It is understood that funding has been secured for the initial section of the A29 realignment between Fontwell Avenue and the junction between the A29 and Barnham Road.
4. The approach to the proposed planning application is for a hybrid application to be submitted. These are:
 - Outline planning application for residential led development on land north of the railway, including the east-west link between Westergate Street and the realigned A29.
 - Full detailed planning application for the southern extent of the A29 realignment between the junction between the northern section of the A29 and Barnham Road and the junction with the existing A29 at Lidsey Road.
5. The masterplan for the residential led development is currently being prepared, and therefore the exact quantum of development will be confirmed shortly.

POLICY CONTEXT

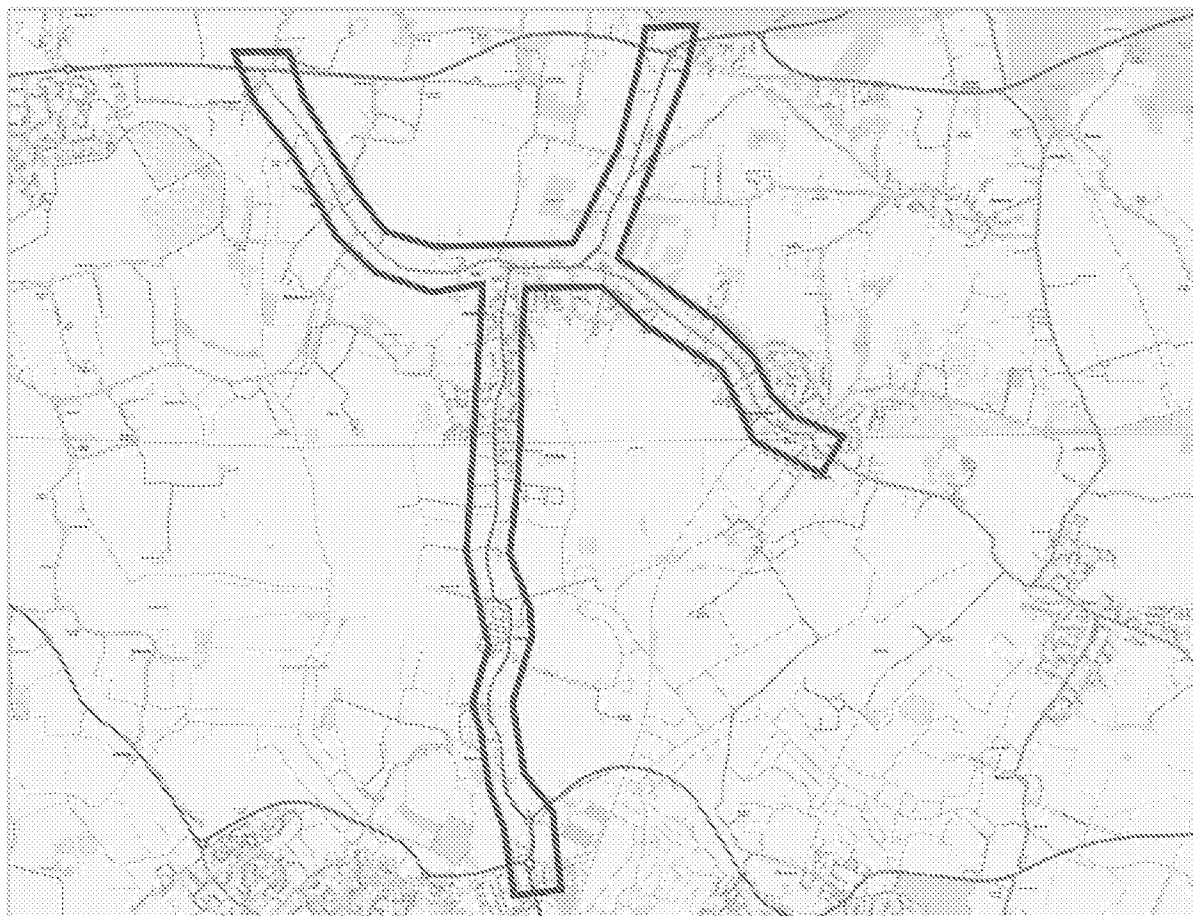
6. The following policies would be reviewed as part of the transport assessment:
 - National Planning Policy Framework (updated February 2019)
 - National Planning Guidance: Travel Plans, Transport Assessments and Statements (March 2014)
 - The Arun Local Plan 2011-2031 (adopted 2018)
 - West Sussex Transport Plan 2011-26 (LTP3)
 - Barnham and Eastergate Neighbourhood Plan (approved in 2014)

BASELINE TRANSPORT CONDITIONS AND SITE ACCESSIBILITY

7. The accessibility of the site will be considered to review the baseline transport conditions and ability to access local services (food retail, health, employment and education).
8. The local walking, cycling and public transport networks will be considered in terms of the routes available, frequency of service, and quality of provision (e.g. facilities at bus stops).

9. A review of the personal injury accidents will also be undertaken to establish whether there are any safety issues identified. It is proposed that the review cover the area shown in Figure 1 for the latest available five year period.

Figure 1: Extent of accident analysis



PROPOSED DEVELOPMENT

10. This chapter of the transport development will provide the detail of the proposed development, including:
- Site location
 - Existing and proposed use of the site
 - The masterplan for the development
 - Site access
 - Sustainable transport proposals and strategy
 - Car and cycle parking provision
 - New A29 road scheme proposals

TRAFFIC MODELLING

11. The scope of the traffic modelling is covered in a separate more detailed scoping note. The extent of that note subjects including:
- Traffic access
 - Existing network traffic
 - Network traffic growth
 - Vehicular traffic generation
 - Traffic distribution and assignment
 - Highway capacity impact assessment using the strategic model
 - Junction capacity assessments

ROAD NETWORK IMPACT MITIGATION STRATEGY

12. At this stage the extent of highway mitigation measures required is unknown as this will be determined using outputs from the strategic and junction modelling.
13. If required, the scope of mitigation measures will be discussed with WSCC following receipt of strategic model outputs and findings from the junction capacity assessments.

FRAMEWORK TRAVEL PLAN

14. A framework travel plan will be prepared for the residential component of the development. This will set out the overarching objectives for the scheme, including action plan measures and preliminary targets.

Appendix F Fontwell Avenue / A29 Realignment