

Project: **HA Spatial Planning Arrangement, East of England Region** Job No/Ref: **60295882 DX044.007**

Purpose: **M11 J7a ASR and Model Development Discussion** Date held: **10th March 2015**

Held at: Virtual Meeting Made by: [Redacted]

<p>Present:</p> <p>[Redacted] AECOM [Redacted] AECOM [Redacted] AECOM [Redacted] Jacobs</p> <p>Apologies:</p>	<p>Distribution:</p> <p>Attendees plus:</p> <p>[Redacted] [Redacted]</p>
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No.	Item	Action By
1	Introduction / Update on Current Status	
1.1	Jacobs began by providing AECOM with an update on recent progress and the current status of the model.	
1.2	The prior matrices have almost been finalised, which have been generated by merging mobile phone and synthetic data. Jacobs is about to start matrix estimation.	
1.3	[Redacted] indicated that the fully observed matrices result in the majority of the relevant screenlines being within 5% of observed counts and that Jacobs is still working on the few that exceed this threshold. Model reporting will be separated into 'full observed', 'partially observed' and 'synthetic' movements.	
1.4	It is intended that NTEM forecasts will be used to constrain the growth forecast, in line with WebTAG requirements.	
1.5	Jacobs is hoping to finalise the base model in the next few weeks subject to approval from the HA / AECOM.	Jacobs/ AECOM
1.6	There will be a workshop on 23 rd April to discuss the forecast options to be modelled. Jacobs is currently developing the Core Scenario for that meeting.	Jacobs
2	AECOM comments on ASR Appendix A – Mobile Phone Data	
2.1	Overall AECOM considers that some issues remain but the methodology presented to date regarding the use of mobile phone data within the model matrices looks broadly reasonable.	
2.2	[Redacted] asked [Redacted] how confident he was in the matrices that have been prepared. [Redacted] indicated that Jacobs has undertaken a comparison between the matrix and 2011 Census Journey to Work data and are broadly happy with the results. AECOM has not yet seen this comparison.	Jacobs
2.3	[Redacted] stated that within the ASR and appendices there is no discussion regarding journey purpose disaggregation. [Redacted] indicated that the origins and destinations of	Jacobs

	trips have been used to identify the likely journey purposes. A comparison has also been undertaken between the modelled zone and NTEM land-use splits, which shows them to broadly be within 5% of each other. However, ■ did acknowledge that there could be some errors in this approach and therefore proposed that a sensitivity test could be undertaken when assessing the economics, to determine the extent to which any changes could have an impact on the BCR.	
2.4	■ indicated that car ownership forecasts have been prepared using NatCOP at a model zone level – ■ noted that by rezoning, the calibration may have been affected.	
2.5	■ questioned whether slow modes are included in the demand model specification; ■ indicated that they are not.	
2.6	■ was concerned that there is no mention of short trips within the ASR or mobile data appendix and questioned whether Jacobs was happy with the trip length distribution. ■ indicated that Jacobs think the trip length distribution is OK but when the prior matrices are submitted they would welcome HA / AECOM comments.	Jacobs
2.7	■ indicated that there is limited discussion of mobile data expansion within the ASR or associated appendices. ■ stated that cordoned counts have been used to expand mobile data. ■ noted that the appendix technical note indicates that traffic count data have been used, while the ASR states that population will be used. ■ indicated that this was an error and that the ASR will be updated to remove the reference to population; following testing Jacobs found that using cordon counts produces better results.	Jacobs
2.8	■ indicated that the counts used to generate expansion factors are just those taken from the cordon boundary. Jacobs has retained other count data for independent calibration / validation.	
2.9	■ agreed to send through the screenlines used for matrix development and independent calibration / validation.	Jacobs
2.10	■ and ■ questioned how the freight matrices have been prepared. ■ stated that HGV and LGV information has been taken from mobile phone data. ■ questioned whether the trip length distribution is plausible. ■ considered that this could be discussed when Jacobs send through the prior matrices. If any adjustments are required these can be made at this stage.	Jacobs/ AECOM
2.11	■ suggested that any trip length distribution concerns should be addressed prior to adjustments being required. Previous (Junction 30) experience with mobile phone data resulted in trip lengths between 18km and 22km across all vehicle types and journey purposes. For HGVs it might be expected that trip lengths of 100km or longer would be more reasonable (CSRGT).	
2.12	■ indicated that if the HGV trip lengths are coming out as shorter than expected then Jacobs can readdress and potentially look at a synthetic infill. This will be considered in more detail when Jacobs report on the HGV matrices and more analysis will be undertaken to determine whether HGV trips represent the total trip length or whether they have been split into 2 or 3 journeys due to the intermediate stops.	
2.13	■ indicated that this could be discussed at the meeting in April and that a sensitivity test could be undertaken if all parties are not entirely happy with the matrices and/or trip length distribution, to determine whether these concerns could have a significant impact on the model / scheme.	

2.14	<p>█ asked whether there would be a section within the forthcoming LMVR on matrix processing and the quality of the matrix. █ said yes there will be and evidence of matrix development will be presented to the HA / AECOM before the LMVR is submitted.</p>	
2.15	<p>█ noted that Jacobs has taken the view that matrix estimation needs to take place. He recommended that Jacobs is careful with regards to how the matrix modification process is presented. █ assured AECOM that any adjustments that are made to the matrix will be fully logged and rationalised. However, █ also indicated that in some cases where there isn't a clear rationale for adjusting the matrix but there is a clear and localised need for estimation then changes could be made, and explicitly noted in documentation.</p>	
2.16	<p>█ indicated that it would be useful to see some summary statistics from the matrix. █ stated that Jacobs will try and provide these in the next week.</p>	Jacobs
3	<p>AECOM comments on ASR Appendix B – Variable Demand Modelling</p>	
3.1	<p>█ indicated that Jacobs will be using VISUM for the VDM and will be using VISUM's in built demand model functionality. AECOM considers that this is a reasonable approach.</p>	
3.2	<p>█ asked how the public transport costs will be dealt with. █ indicated that the cost changes will be set to 0 as no new public transport schemes will be included within the modelling. █ recommended that fare changes are included as fares are likely to increase in the next 15-30 years, the period that will be reflected within the modelling. If fare changes are not represented then public transport use could be overestimated. █ agreed to include fare increases in the model.</p>	Jacobs
3.3	<p>█ indicated that Jacobs is not intending to use cost damping unless it is required. █ asked whether AECOM is comfortable with Jacob's excluding external to external trips from the variable demand or whether they would prefer that all trips are included. AECOM indicated that they would need time to consider this.</p>	
3.4	<p>█ indicated that Jacobs will run the model and report on it before running realism testing and selecting which is the most appropriate approach. AECOM agreed with this.</p>	
3.5	<p>Jacobs has indicated that it will use ICA for all of the junction modelling. AECOM recommends that more of an explanation is provided (comment log point 20).</p>	Jacobs
3.6	<p>Jacobs provided details regarding the segmentation of demand by car availability. Mobile data does not include details of the car availability and therefore Jacobs stated that this will be inferred based on the origin / destination and 2011 Census information.</p>	
3.7	<p>Jacobs proposed that only two categories (car availability and no car availability) are used within the model, rather than 4 categories. AECOM considered that this was reasonable; however it was recommended that the methodology used to determine car availability / no car availability is considered further. █ agreed to adjust the VDM technical note to detail how car availability has been established.</p>	Jacobs
3.8	<p>█ highlighted that the ASR is non-committal on the HGV value of time and asked whether any decisions had been made on this by Jacobs. █ indicated that they will respond to the minutes of the conference call on this.</p>	Jacobs

4	Other comments	
4.1	<p>■ questioned how happy Jacobs was with how the network generated delay. ■ indicated that a synthetic matrix has been run through the model and an audit has been undertaken to see if the delay within the model was reasonable, which it seemed to be. For the forecast years Jacobs proposes to look at the journey times to determine whether they are happy with the level of delay occurring in the future.</p>	Jacobs
4.2	<p>■ questioned whether Jacobs is using manually observed data to validate Trafficmaster journey time surveys. ■ indicated that there is currently not enough observed data so some additional data may need to be collected to validate that Trafficmaster data. ■ confirmed that Jacobs is using Trafficmaster data on the strategic road network.</p>	
4.3	<p>■ noted that some of the section numbers in the comments log are incorrect and that these may need to be updated.</p>	Jacobs
5	AOB	
5.1	<p>AECOM will prepare minutes from the conference call and Jacobs will respond to these with any comments.</p>	AECOM / Jacobs
5.2	<p>Jacobs will provide matrices to AECOM / the HA for review. They will also provide details of the screenlines used and the screenline results from the prior matrices.</p>	Jacobs