

Steve Johnstone of Lawrence Walker Limited was jointly commissioned by a number of parties including CAUSE, Mr Matthew O'Connell and Shalford Parish Council. Mr Johnstone's hearing statement is below; CAUSE and Mr Matthew O'Connell will refer to this in their hearing statements as well as addressing other questions separately.

Note: Word Count (excl. Titles / questions) confirmed as under 3000 words.

## **Proposed Allocation of Garden Communities by North Essex Authorities (IED019 Appraisal)**

### **Hearing Statement – Matter 6 Transport & Other Infrastructure**

#### Preamble

*Is there sufficient certainty over the provision of necessary infrastructure to demonstrate that the garden community proposals in the Section 1 Plan are deliverable?*

No. None of the criteria highlighted by the Inspector as being required to be met in order to make the Plan sound have indeed been so met.

*Has sufficient evidence been provided to demonstrate the viability and feasibility of the proposed Rapid Transit System [RTS]?*

No. This failure centres upon the inadequacy of the traffic modelling work that purports to underpin the RTS; the lack of clarity as to what the RTS actually is; the low targets set for both the delivery and resultant modal-share implications and the poor and inadequate nature of both the Viability Appraisal and the IDP.

*Does the Section 1 Plan make sufficiently clear requirements about the provision, timing and phasing of necessary infrastructure, and are those requirements justified?*

No, and again this is spelt out in my Consultation Response. Phasing is muddled and would see much of the RTS delivered outside of the current Plan Period, thereby negating its benefit. In addition (and as noted above) the actual infrastructure requirements have not been clearly identified, making the timing of their delivery impossible to quantify.

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**Road Funding and Programme**

- Q1 *Has funding been secured for the A120 improvement scheme between Braintree and the A12 through the Department for Transport's RIS2 programme?*
- (a) *If so:*
- (i) *has a route for the scheme been approved?*
- (ii) *what is the programme for the scheme and when will it be completed?*
- (b) *If not, what are the consequences for the feasibility of the West of Braintree and Colchester Braintree Borders GCs?*
- Q2 *Does the A120 improvement scheme above include the grade separated A120 junction which is identified as requiring external funding in the Additional Sustainability Appraisal Appendix 4, p45 (Confirmation of Site Proposals – NEAGC1)?*
- Q3 (a) *Does the funding that was committed under the DfT's RIS1 programme for the A12 Chelmsford to A120 widening scheme remain committed for the scheme?*
- (b) *If so, would the full costs of each of the route options shown in the Highways England consultation (Jan-Mar 2017) be covered by that committed funding?*
- (c) *Is the proposed alignment of the A12 between Feering and Marks Tey in route options 2 and 4 of the Highways England consultation (Jan-Mar 2017) [EXD/066] the same as the alignment shown in Figure 15 of the AECOM Infrastructure Planning, Phasing and Delivery [IPPD] document [EB/088]?*
- Q4 (a) *Is there still a possibility that funding will be secured through the Housing Investment Fund [HIF] for a more southerly realignment of the A12 in the Marks Tey area?*
- (b) *If so:*
- (i) *what is the proposed alignment for which HIF funding is sought?*
- (ii) *when will a decision on the HIF bid be made, and what would be the likely timescale for completion of the realignment scheme?*
- Q5 *Funding has been secured through the HIF for a A120-A133 link road to the east of Colchester.*
- (a) *Would the full costs of each of the route options shown in the Essex County Council consultation (Nov-Dec 2019) [EXD/066] be covered by the HIF funding?*
- (b) (i) *Are any other highway improvements needed to cater for the traffic generated by the Tendring Colchester Borders GC?*
- (ii) *If so, how would they be funded?*
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Q6 *What are the consequences of the answers to 3 (a), (b) & (c) for the feasibility of the West of Braintree and Colchester Braintree Borders GCs?*

To date, not a single RIS2 scheme has been announced by the Government and the HIF bid for the A12 remains undetermined.

Specifically between Braintree and the A12 at Marks Tey the A120 is a single carriageway, causing the Inspector to note that without the guarantee of funding for dualling, CBBGC and WoBGC would be unsound. This situation has not changed.

Q7 *What are the consequences of the answers to 4 (a) & (b) for the feasibility of the Colchester Braintree Borders GC?*

The situation whereby alternative alignments and options for the A12 have not been modelled by the NEA's and as such, no evidence has been presented to the Inspector to justify any conclusions with regards to this question.

Q8 *What are the consequences of the answers to 5 (a) & (b) for the feasibility of the Tendring Colchester Borders GC?*

I defer to Mr. Peter Kay's Hearing Statement on this issue.

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Other Infrastructure and Phasing

Q9 *Item 5.1 in section 3 of the Gleeds Infrastructure Order of Costs Estimate [EB/087] is described as 132kv connection to Primary Substation from Colchester Grid Substation and is estimated at £9.2M. Does that estimate include the cost of the primary substation itself, or just the connection to it?*

Q10 *Do the Integrated Water Management Strategy [EB/015] and the AECOM IPPD document [EB/088] provide sufficient certainty that adequate provision can be made for water supply and waste water treatment for the proposed GCs?*

Q11 *Is the approach to the phasing of infrastructure provision at the GCs, set out in the AECOM IPPD document, justified and appropriate?*

Q12 *Would an alternative approach to phasing be preferable, such as that set out in the Infrastructure Delivery Plan by Create, submitted with the response to EB/088 from Carter Jonas on behalf of L&Q, Cirrus Land & G120?*

No alternative approach to phasing has been modelled by the NEA's and as such, no evidence (other than that submitted by incumbent third-party promoters) has been presented to the Inspector to justify any conclusions with regards to this question.

Q13 *(a) Are the Section 1 Plan's policies sufficiently clear about what infrastructure needs to be provided, and by when?*

No, and this is again spelt out in my Consultation Response. Phasing is muddled and would see much of the primary transport infrastructure delivered outside of the current Plan Period, thereby negating its benefit. In addition, as noted above the actual infrastructure requirements have not been clearly identified, making the timing of their delivery impossible to quantify.

*(b) Should the Plan's policies require funding for key infrastructure to be committed before planning permission is granted for any of the GCs?*

Yes. In particular CBBGC should not proceed unless the A120 is dualled and the A12 widened, nor WoBGC until the A120 is dualled. In addition, neither CBBGC or WOBGC should proceed until the interlinking RTS (Route 4) has been fully provided and is operational to the correct standard.

*(c) Should the Plan's policies link the phased provision of infrastructure to defined trigger points in the phasing of development at the GCs?*

Yes. This is already a requirement of the NPPF at Para 177.

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Rapid Transit System for North Essex

*[In responding to these questions, would the NEAs please address the criticisms of the document Rapid Transit System for North Essex: from Vision to Plan [EB/079] contained in participants' consultation responses, including the technical note by Walker Engineering appended to Mr O'Connell's response, and the Technical Note by RPS which forms Appendix 3 to the response from Turley on behalf of Parker Strategic Land.]*

I would request that sufficient Hearing Time be allocated to allow a proper discussion of the issues raised to take place.

Q14 *Are the capital costs for the proposed RTS set out in section 5.1 of the Vision to Plan document [EB/079] realistic?*

No, and wildly so.

The issue of capital costs is considered in my Consultation Response and fundamentally, the costs provided in the *Vision to Plan* document are woefully inadequate and misleading because of three key factors:-

- i) The current combined capital figure given in EB/087 is just under £230m including a 10% allowance for variation. It is however stated that the appraisal is based on the *Higher Level Investment Scenario* but with the lower end of the scale being used, meaning that it must surely sit somewhere in the middle of the previous NERTS range, and not lower than the lowest value. Indeed, the Optimum Bias has been reduced from 64% as used in the previous assessment down to 10% without justification, and this is an inherent weakness and part of an overall *slight-of-hand* aimed at justifying a lower capital cost. The £230m figure does not allow for "*interim routes*" either or what is termed "*specific structures*" such as the Bridge over the Railway at the CBBGC, which at around £6m surely has to be material. As a consequence, £230m is too low even if taken as a starting point in my view, and worryingly so;
- ii) To work properly, it is my experience that *all* credible RTS networks require extensive land acquisition (including wide-scale use of CPO powers) to remove constraints along their route and bring-in missing pieces of land. It has not been proven otherwise and that is a real issue, given the very significant and unquantified costs (as well as potential delays) related to this type of land acquisition. Therefore, until all of the routes have been fixed, modelled in full and all costs including land-assembly and CPO assessed and included in the VA, the BRT/RTS costings are unsound, and;
- iii) As outlined in my hearing statement, there is also a requirement – shown in real world examples – for long-term usage incentivisation in order to drive the desired modal share change. This is a quasi-capital cost which is entirely excluded from the costings in EB079.

As a result of the above three points, cost predictions relating to the RTS are substantially too low and by a factor of about three when considered against real-life schemes such as *Fastrack*. For reference, the capital cost including land

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acquisition and usage incentivisation for Route A equated to circa £13m/km (in today's prices) vs. the £4.1m/km to 4.6m/km range used for the capital costing in EB079 and referenced in EXD/049.

Q15 *Have sources for all the necessary capital funding for the RTS been identified?*

Yes, as there are few realistic possibilities available beyond Developer Funding through the CIL or S106 process and the HIF.

Q16 *Do sections 5.2, 5.3 and 5.4 of the Vision to Plan document provide reliable estimates of revenue, operating costs and commercial viability for the RTS?*

Absolutely not, and this remains a major point of concern.

Fundamentally:-

- i) The Traffic Model used to predict passenger numbers has been calibrated for 2014 traffic flows and then for the AM peak hour only. As a result, it is way too old for use in 2019 and the use of just morning flows in an area dominated by Stansted is wholly inappropriate. Here traffic to and from the Airport varies significantly during the day (depending upon when flights arrive and depart) and the peak hours are not nearly the same, with the AM being larger. Using just one (the larger) and then a notional factor to provide daily totals will lead to an over-estimate of RTS take-up across the network and provide an in-accurate picture of travel for a typical day;
- ii) Refinement of the RTS passenger and revenue forecasts requested by the Inspector has not been dealt with fully or correctly by the NEA. The multi-modal modelling supplied is wholly inadequate whilst the UDC and NEA reports that cover parts of the route between Stansted and Colchester are inconsistent. Aspirations for the network have been set too low and are unlikely to meet the mode-shift required anyway, irrespective of the modelling used. Much of EB/080 is irrelevant. It is not then possible to confirm the passenger numbers and revenue with any degree of certainty, and;
- iii) On the revenue side specifically, the assumptions made are bizarre and centre upon the whole network either being in operation or not. RTS routes cannot simply be wished into place and assuming that they are ignores interim losses associated with their operation in discrete sections up to 2033, as was expected by the Inspector. The modelling used to underpin passenger numbers adopted in the VA is wholly inappropriate and hopeless flawed as a result, because of not least this one factor alone.

Q17 *Funding has been secured through the Housing Investment Fund [HIF] for a bus-based RTS serving the Tendring Colchester Borders GC.*

*(a) Which elements of the RTS scheme proposed in the Vision to Plan document would be covered by the HIF funding?*

*(b) Would any additional funding be required to complete Route 1 of the RTS scheme as proposed in the Vision to Plan document?*

*(c) If so, how would that additional funding be secured?*

Q18 *How would connecting public transport services within the proposed garden communities be funded?*

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Connecting PT services have not been modelled by the NEA's and as such, no evidence has been presented to the Inspector to justify any conclusions with regards to this question. Without them being defined, it is a matter of conjecture as to whether they can be funded.

Q19 *Is the proposed phasing of the introduction of the RTS system;*

*(a) realistic?*

*(b) consistent with the proposed timing of development at the garden communities?*

The answer to both questions is most definitely no.

Referring directly to my Consultation Response:-

- i) The most dubious aspect of the RTS remains the intended timescale. Mind-sets must be established from day-one, and yet the only place RTS is likely to take you before the end of the Plan Period is Colchester via the TBCGC. Page 68 of EB/079 sums it all up, stating that *"...By the end of the Local Plan period in 2033 it is expected that Route 1, 2 and 3 will be in place."* Indeed, and by which time thousands of houses across four communities will have changed hands several times leading to no continuity, with each owning three cars and having to use them because there aren't any buses. This is hardly sustainable travel. This is hardly Rapid Transit and the failure to deliver, or even commit to deliver, RTS before 2033 is clearly unsatisfactory;
  - ii) Mr. Clews specifically raises the problem of phasing and the need to deliver RTS in stages, yet the target is for Routes 1, 2 & 3 to be in place by 2033 at the end of the Plan Period. There is no target to have bits open to serve specific parts of the GC's before then and indeed this is confirmed by reference to Figure 7-3, which shows zero take-up at WoBGC in 2026 due to no model. For CBBGC the figure is the same up to 2029 - only rising to a miserly 6% by 2033 which is still no better than existing bus take-up in the area without RTS;
  - iii) From the spend and revenue expectations provided at Tables 5-7 and 5-10 of EB/079 respectively, it can be seen that up to 2028 only around 19% of the total budget is to be expended, and that includes some early temporary routes as noted on Page 53 and as shown in the table itself. These might reasonably be expected to not be to RTS standard (hence their subsequent replacement with dedicated routes) and hence the actual figure is nearer 13%. Given that any spend between 2029 and 2033 is unlikely to deliver anything on the ground until 2033, it means that only 13% of the expected RTS system will physically be in operation before the end of the Plan. This is confirmed by both EB/080 and indeed Table 5-10, since only limited modal-shift and revenue has been assumed up until then. Moreover nearly all of this is due to Route 1, suggesting that other parts of the network will be missing. This ostensibly means that RTS is being delivered in one main hit, and that that hit takes place *after* the Plan Period within which the housing it supports is supposed to be delivered. In my view this is at odds with both the purpose of a Local Plan and Mr. Clews' observations at Para's, 39 and 132 of his Letter.
  - iv) The most important consideration is that early phases of development are provided with RTS in a recognisable format and not its cost, since to deliver nothing is clearly the cheapest option but would expose thousands of residents to extensive long-term car dependency because there isn't a
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suitable alternative. What should have been provided is a targeted package of complete RTS sections operating in full RTS mode by first significant occupation within each GC. Commencing spend in 2024; not opening anything until 2028 and anything meaningful until 2033 for a Plan that expires in 2033 is not appropriate in my view.

- v) Operational subsidies are crucial to pump-priming RTS and helping to provide quality services from day one and yet none have been considered.

The Plan as it stands continues to be unsound when judged against the NPPF at Para's 17 & 35, because of its lack of provision for good quality Public Transport for almost its entire life.

Q20 *Does the Vision to Plan document provide sufficient reassurance at this strategic stage of planning that it would be feasible in physical terms to construct the proposed RTS system?*

No, and with the most notable issues being the lack of RTS-related CPO provisions (and associated land acquisition / blight costs) in the Plan and the credibility of such a loosely defined route.

Fundamentally, there are many parts of the extended route that would require substantial intervention through the towns, and these have been spared scrutiny through the production of only high-level plans within EB/079. The delivery of CBBGC is of particular concern to LWL in this context, since the A120 approaching the Marks Tey Roundabout is closely flanked on both sides by houses and there are multiple businesses at the Roundabout itself. Equally the London Road in Copford becomes effectively a single track because of parked cars and this was a specific issue that CPO was used to address with Fastrack at Dartford, through the creation of on-plot and bespoke (but enforced) off-street parking. Without either significant compromise or the extensive use of CPO, it will not be possible to deliver RTS in physical terms in my view.

Q21 *What are the implications for the GCs of the proposal not to build Route 4, linking the Colchester and West of Braintree sub-systems, until after 2033?*

These are essentially two-fold:-

- (i) Firstly, the GC's will become car-based communities. By way of example, Figure 7-3 of EB/080 shows the "*Refined WoBGC Mode Share Targets*" as derived from the flawed Jacobs modelling work. It shows 10% RTS take-up by 2033 at the end of the Plan Period. That is a far cry from the 30%+ target noted by Mr. Clews at Para 39 of IED011 and by strict inference, is just not good enough. EB/080 adds nothing to detract from this view. CBBGC seems to fare even worse however, with Jacobs predicting a take-up at Figure 7-2 of a just 13% RTS usage by completion in 2078. At this sort of level one has to ask what will happen to the A120, which will be left to handle at least double the traffic it does today. It will need four lanes in each direction as opposed to two is the unhappy answer, and secondly;
  - (ii) Direct RTS connections to the two most critical destinations of Stansted and Colchester are not achieved within the Plan Period (UDC Document ED13 Fig 2-7 refers) and neither journey times nor advantage over the private car have been demonstrated by suitable multi-modal modelling to anywhere. It is then difficult to imagine how any meaningful mode-share can be attributed to it in the mean-time over what is effectively the entire Plan
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Period under discussion at the EiP. I would bring this point specifically to the Inspector's attention in relation to all routes, not just Route 4.

Q22 *The Vision to Plan document proposes a bus rapid transit system initially, potentially to be replaced beyond the Section 1 Plan period by trackless trams. Are these proposals justified and consistent with the Plan's aspirations for high-quality rapid transit networks and connections?*

Clearly not.

With reference to my Consultation Response, I would contend that:-

- i) Any significant part of even the initial RTS system will not be operational to any degree within the Plan Period under consideration at the EiP, hence it cannot possibly meet a vision of what it should be;
- ii) To pit oneself against the infamous private car takes courage, knowledge and a good blend of experience and imagination. Above all though, it takes money. The quoted £230m of capital costs when split over three+ routes needed makes the RTS look like a cheap country bus service when compared to other schemes such as the *Fastrack* and is in no way comparable, nor indeed what is required. Furthermore the capital costs are far too low compared to suitable quality BRT – there are certainly no capital costs included for conversion of BRT into trackless tram;
- iii) Direct RTS connections to the two most critical destinations of Stansted and Colchester are not achieved within the Plan Period;
- iv) Fares that are not-a-lot cheaper than the private car; journey times that are never significantly quicker (if quicker at all) than driving and a delivery timescale that does not see RTS operating from first occupation and by some margin put RTS at a distinct disadvantage when compared to a 'proper' system. Why bother with RTS then? Indeed, and particularly so when even with it, most people will still be travelling by car in 2033 simply because it is not yet open, and;
- v) I have reviewed the anecdotal evidence provided at EB/080 and believe that the examples used are not credible to support modal share change in North Essex. Examples have to be comparable and in most cases those contained in EB/080 are simply not.

The problem here is then that the RTS routes will not be fast and free of traffic as cited in the report. Segregation is not prevalent and none of the network has been properly modelled to demonstrate otherwise. What *can* be achieved with the right starting point and deep enough pockets is not in question. What *will* be achieved across the NEA is however a different matter, largely unproven and likely to fall some way short of "*The Vision*" in my view. No amount of anecdotal evidence can demonstrate otherwise.

Q23 *Are the refined mode share targets set out at Figures 7-1, 7-2 & 7-3 of the Mode Share Strategy document [EB/080] justified by the evidence contained and referenced in that document?*

No, and by some margin.

EB/080 is evidenced by both ED13 and EB/079 regarding traffic modelling and passenger numbers. Jacobs state respectively for the UDC BRT and then for the NEA RTS at Para 5.2 of EB/079 that:-

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*“...A multimodal transport model has been developed using EMME transport modelling software.....that combines Highway and a Public Transport (PT) models.”*

*“...Revenue forecasts have been developed using outputs from a multi-modal transport model.”*

EMME however has not actually been used in full as is suggested above and that is the issue. This fact should now be fully disclosed and the shortcomings inherent with the cut-down approach actually adopted by Jacobs accepted and brought to everyone’s attention. EB/079 reinforces this assertion, since it is stated by Jacobs on Page 70 that EMME, as actually used on the WoBGC:-

*“...assigns a fixed number of highway trips and a fixed number of PT as calculated in the mode choice model. **It does not assign trips between the highway and PT networks.**”*

The “mode choice model” referred to here is just a manual spreadsheet, so this clearly is contra to how a true multi-modal model should be set-up and deployed. The EMME work presented by Jacobs in EB/079 is in fact just a hand calculation and does not consider congestion, which is a fundamental part of making a selected transport choice as a resident of (say) WoBGC or CBBGC. If the journey by bus to Stansted or Colchester is as slow as that by car, then why travel by bus? The EMME model, it would seem, is not capable of making this distinction and this aspect now needs to be properly considered by Jacobs and a full and coherent written explanation provided as to exactly how and why EMME has been used, particularly as it underpins the mode-share targets provided within EB/080.

Q24 *Should these (or other) mode share targets be included as requirements of the Section 1 Plan’s policies?*

This would be useful. However, it is more important that the RTS itself is upgraded to meet exemplar requirements (and this inserted into the Plan) and not the mode-share targets reduced to meet what the current RTS proposals will actually deliver.

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