

WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Arun District Council FAO: Patrick Arthurs/David Easton
FROM:	WSSC - Highway Authority
DATE:	23 rd June 2022
LOCATION:	Barnham, Eastergate, Westergate BEW Parcel SC1 Barnham
SUBJECT:	BN/11/22/OUT Outline application with all matters reserved (except for the A29 Realignment) for the demolition of existing structures and mixed use development to provide residential dwellings (Use Class C3), Care Home/Senior Living Accommodation (Use Class E/F2/Sui Generis), a Primary School plus open space, landscaping, drainage and all other associated ancillary works; and realignment of the A29 and early connection to existing A29 including construction of a new road carriageway, junctions and associated infrastructure. This application also lies within the parish of Aldingbourne, affects the setting of listed buildings, affects the character & appearance of the Eastergate Church Lane Conservation Area and affects a Public Right of Way. This application is the subject of an Environmental Statement. An amendment received
DATE OF SITE VISIT:	31 March 2022
RECOMMENDATION:	More Information Required
S106 CONTRIBUTION TOTAL:	DETAILS TO BE ADVISED

This is the third WSSC Highways (CHA) response to the above planning application for outline application with all matters reserved (except for the A29 Realignment) for the demolition of existing structures and mixed use development to provide residential dwellings (Use Class C3), Care Home/Senior Living Accommodation (Use Class E/F2/Sui Generis), a Primary School plus open space, landscaping, drainage and all other associated ancillary works; and realignment of the A29 and early connection to existing A29 including construction of a new road carriageway, junctions and associated infrastructure. This application also lies within the parish of Aldingbourne, affects the setting of listed buildings, affects the character & appearance of the Eastergate Church Lane Conservation Area and affects a Public Right of Way. The application is the subject of an Environmental Statement.

In its previous responses dated 7 April 2022 and 10 May 2022, the CHA identified a number of matters requiring responses from the applicant. The comments below respond to the response from the applicant to the first response dated 7 April 2022. Although further comments were sent to the LPA by the CHA (dated 10 May 2022), at the time of writing the comments below in this response, no response has been received from the applicants to those.

Response to applicant's response dated 17 May 2022 (received by the CHA on 19 May 2022). Comments in black text below are the CHA's comments from response dated 7 April 2022 with the applicant's responses in red text afterwards. Latest CHA responses found in *blue italic text*.

- 1. *Design speed*** – This is still quoted as 30mph. However, no reference to the WSCC Speed Limit Policy is provided. As such, the applicants should set-out whether-or-not the new A29 road accords with that Policy.

The Design of the A29 is seeking to align with WSCC Speed Limit Policy, however it should be noted there are some outside influences which has impacted and shaped the design process.

Further to various meetings with WSCC on the road design in 2019 and 2020 and prior to the submission of the Planning Application there was an agreement between WSCC highways team, WSCC A29 delivery team and The Southern Consortium that the A29 would be subject to a 30mph design speed. Reference to these discussions are highlighted in our Design Statement. In line with WSCC Speed limit policy the main elements are, the road will need to demonstrate that any design speed chosen is self-enforcing and this will be influenced by design speed related parameters but also by the road width, alignment and layout constraints (number and type of junctions, pedestrian crossings, frontage activity, accesses, bus stops and level of frontage development and associated activity).

All of the above has been considered in the design, specifically the number of junctions, connections across the site (leading to crossings), Accesses and bus infrastructure

From the WSCC Speed Limit Policy '*For a 30mph limit there should be at least 30% of the route length with frontage development on both sides of the road, or 50% of the route length with frontage development on one side of the road*' Some frontage interaction is proposed and further detail is set out in the Design Principles Document (pages 29-31), which include the following for the A29 interface:

"Building Line:

- ✦ Buildings should create a continuous frontage along the A29 to achieve a degree of formality and enclosure.
Individual buildings should be parallel to the A29 with any set-backs to dwellings to be minimised. Any set-backs which occur should be at a consistent distance from the A29. Shared/private drives to the front of dwellings should be kept to a minimum. Where they occur, dwelling grouping should be symmetrical."

For the section north of the railway where land parcels are proposed, these principles would deliver at least 50% frontage along one side of the A29 and at least 30% frontage along both sides (excluding the embankment to the bridge as built form is set back and at a different level to the A29).

The submitted planning application does not include land parcels south of the railway line; however, in line with the endorsed Framework Masterplan it is anticipated that there would be frontage along much of this route.

The matter of speed limit is undergoing further discussion in-house at WSCC and a further, more detailed response, will follow in due course.

- 2. Departures from Standard** – None appear to be identified by the applicant's consultants but this is not stated either-way. Applicant to reply to this, please. If some are identified, then there is a formal process for considering them.

There are no departures from Standards, for the road alignment CD109 horizontal and vertical design has been used including appropriate transitions. The horizontal alignment towards the south end on the road design still achieve 255r which is noted in table 2.10 of CD109 meeting the Desirable minimum R (superelevation 5%).

Please see WSCC comments further below in response to new A29 re-alignment and A29 Design Statement (starts on page 16).

- 3. Crossings** - As an initial comment, there appear to be too many controlled crossing points, and where they do occur, they are not spaced sufficiently apart. There could be the situation where drivers are stopped by each set of signals due to the gaps created by them, increasing journey time & air

pollution. The applicant should state their reasons why so many are proposed.

With regard to the Zebras, having these so close to roundabouts has the potential to impact traffic flow depending on pedestrian flows, and could subsequently generate queues back on to the roundabouts, impacting their operation. Additionally given the recent changes to the highway code, the parallel crossings may result in conflict between vehicles and cyclists, as cyclists/pedestrians have priority and drivers may not be looking to the side for a fast- moving cyclist, as they exit a roundabout. That's not to say that some form of ped/cycle priority-style crossing won't be accepted in some locations, it's just that the form and design of crossing chosen for each location might need to be looked at again. At the very least, the applicant needs to present their rationale for them and how they meet design standards and/or guidance. As a final point regarding the Zebras, they cannot be installed if the 85th percentile speed is greater than 35 mph, therefore evidence of this will be required before that type of crossing can be considered.

Crossing points, both key and desirable have been considered and discussed at length with Officers to ensure connectivity across the site is included in the design. As shown on the drawings and in the DAS the site does contain some critical links and desire lines East/West which have been reflected in the layouts.

Types of crossing point and their interaction with the proposed junction have been considered alongside the design standards. As part of the Design Statement Pell Frischmann provided Technical Note on the type of crossing and how this aligns with traffic volumes and design speed.

Specifically related to the Zebra crossings around junctions it remains critical that we provide a link across the site and these have been reflected in the design. In accordance with CD116 figure 3.53 the crossing points are shown in excess of 20m from the give way line. In accordance with LTN 1/20 the crossings are currently shown as segregated but as part of the design development and to decrease the footprint could be reduced to shared crossing points.

The CHA still need to see the applicant's strategy for crossing positions and consideration of controlled crossings elsewhere along new A29 re-alignment.

- 4. Structures** - As a foreword to the comments for both structures, it's very unclear what type of NMU facilities are proposed. The drawn detail, text and dimensions are inconsistent e.g. the GA for the Lidsey Rife Viaduct shows a 4.0m wide 'cycleway/footway' (plus 0.5m extra allowances for fixed objects to each side). It was also understood that the routes are to be segregated facilities. However, the text leads us to think that un-segregated facilities are proposed because there is no drawn detail to the route to define which side is footway, and which side is the cycleway. Also, the dimension of 4.0m wide is in excess of the 3.0m minimum for a shared facility but inadequate for say a two-way segregated facility.

On Section A-A of the GA for the Rail Bridge it defines a similar 4.0m wide 'cycleway/footway' (plus 0.5m extra allowances for fixed objects to each side), and defines that the width is in accordance with LTN 1/20 Table 6-3, which is for un-segregated facilities. As noted above, a shared facility only needs to be 3.0m wide. NB: the 4.0m wide dimension given doesn't match any of the dimensions in the referenced table.

For the rail bridge there are also NMU facilities under the structure. The Options Report states 'pedestrian' routes under (in the text and in the figures), whereas the West Elevation on the GA defines them as 'shared' facilities (in the dimension for the overall span). However, also on the West Elevation the dimensions for the route widths then defines them as 'segregated' facilities... NB: at 4.0m wide they are only suitable for being an un-segregated facility (i.e. 3.0m minimum width plus 2x0.5m for allowances for fixed objects to each side = 4.0m). This needs to be clarified.

The drawings and reports need to be unambiguous on the proposed NMU route type(s) as they fundamentally effect the width of the structures and the overall span of the railway structure. WSCC has identified several of the inconsistencies associated to the NMU routes in the comments below, but the list is not exhaustive.

It should be noted that the bridge design has been developed alongside consultation with parties including WSCC, Network Rail, Environment Agency. Following the grant of planning permission, there will be additional separate approval processes required for the detailed design of the bridge and the bridge design options will be finalised at this stage following consultation and approval from both WSCC and Network rail.

NMU facilities are to be segregated over both bridges. It is noted that LTN 1/20 shows a desirable minimum width of 5.5m for segregated pedestrian and cycle routes, cl 10.8.12. This includes a 2m footway, 3m cycle track and a 0.5m clearance on one side. Therefore, the width of the bridge deck has been updated to reflect this in the attached Overbridge Options Report. Reference to table 6-3 has been removed from the drawing.

The 4m wide paths under the bridge provide access to the bridge soffit and substructure. They also provide space to accommodate a combined footway/cycleway in line with the DAS. The reference to a segregated route has been removed from the Overbridge Options Report.

A29 BEW Rail Bridge (WSCC structure ref: 1779).

Options Report.

1. The WSCC naming convention for the bridge needs to appear on all doc' headers and drg. title blocks. The name should be as clear/specific as possible but more importantly, the 'WSCC structure ref: 1779' must appear.

Added.

2. Refer to general comment above regarding NMU route type. The cross section in Figure 4 needs to be consistent with that in the GA.

Agreed and amended accordingly.

3. 2.1, 2nd bullet point – the text refers to 3m pedestrian access routes under the structure (between the abutments and fence), refer to general comment above regarding NMU route type.

Agreed and updated in the Overbridge Options Report. "3m wide pedestrian access route" changed to "4m wide path". This bullet point refers to access for maintenance and routine inspection only.

4. Either in section 2.1 or 2.2 there should be a few words on the need for the NMU approaches to be compliant with designing for disabilities (gradients, rest points etc.) as this impacts on the length of the approaches.

The gradient of the segregated cycleway and footway over the bridge are driven by the carriageway gradient which is approximately 1:30. Please refer to drawings A13394-PF-ZZ-XX-DR-CD-00401 and A13394-PF-ZZ-XX-DR-CD-00402.

If required, additional NMU routes will be developed across the site to provide access to the bridge.

Regarding the routes under and over and noting the latest comments made, the response clarifies segregated routes over and shared under. As the applicant will know, LTN 1/20 prefers segregated whenever possible. Applicant to respond as to why the arrangements under the bridge travelling E-W (and vice-versa) are shown shared. If the arrangements underneath become segregated, it will mean that the bridge span grows as a result and the construction depth of the bridge will need to increase to cope with the extra span (and likewise, if the segregated routes over the bridge are widened). For the routes underneath, this will have knock effects to the height of the carriageway above the landscape and the length of the approaches. In any event, so long as the correct route widths are incorporated (relative to the shared or segregated decision), the CHA does need to know what the final decision is in order to ensure technical compliance to decision.

Applicant to provide further response to this, providing, in particular, actual widths proposed for cycle and footways under and over the railway bridge and how they comply with LTN 1/20.

5. 2.2 (span), Figure 6 shows a min. 5.8m headroom envelope with a further headroom allowance taking it up to 6.2m, but the GA only show's 5.8m to the soffit(?). As well as ensuring consistency between the Figure and the GA please also define what the red line envelope is, and why you have opted for a further 0.4m clearance(?).

Agreed and amended. Only the min. 5.8m required headroom is now shown in Figure 6.

Red envelop line determines the minimum lateral and vertical clearances to the railway.

6. 2.2 (utilities) the response given touches upon the need for further enquiries during the preliminary design stage. WSCC concurs with the statement but would stress the importance of these early enquiries given the potential for abortive design work to accommodate larger diameter ducts, (and therefore potential breaches of planning). NB: given the CDM/H&S issues associated to utilities perhaps there should also be a recommendation in section 6(?).

Recommendation added to Section 6.

7. 3.1 immediately above Figure 7-3, refer to general comment above regarding NMU route type (& overall span).

Figure updated and text amended.

8. 3.2.2, the title refers to an in-situ box but the text below refers to a voided deck slab(?).

Title and text has been updated accordingly to reflect an in-situ box structure.

9. 3.3, overall span dimension, refer to general comment above regarding NMU route type.

Amended.

10. Figure 9 showing 6.2m headroom but text above defines 5.8m.

Figure updated.

11. Option 1 – Beams ctrs, spans etc – possible changes(?). Do need to be specific with the dimensions. NB: Figure 10 defines 5No. beams at 3.287m ctrs but the text above define 6No. at 3.0m ctrs. Please clarify.

Updated to reflect 6 beams.

General Arrangement

- a. Refer to general comment above regarding NMU route type, and changes associated to items above (i.e. consistency between text and drawing).

Updated accordingly.

- b. Refer commentary above regarding utilities. WSCC require to see something on the drawing that is indicative and calls up that the utilities are TBC.

Drawing updated to indicatively show new services within the footways of the bridge. Specific requirements to be confirmed during consultation/enquiries with Statutory Authorities (Utilities).

- c. Please show the NMU routes under the structure on the plan ensuring that they don't clash with the maintenance access routes/parking/turning heads.

Please note that in line with the DAS we propose a shared cycleway/footway to cross the new A29 alignment under bridge. The 4m wide path also provides access for routine inspections and maintenance. Overall dimensions

for parking area to be developed as part of the design to ensure sufficient space provided for parking/turning heads, however the NMU route is to be maintained.

- d. On the elevation please show the boundary fences to be 2.4m high palisade (as this is most likely what NR will want, as also indicated by the call-up).

Agreed, drawings updated accordingly.

- e. On the elevation please show the 'verges' to the left and right of the NMU's routes (if they are indeed shared facility routes?)

A provision for a footway/cycleway has been provided under the bridge on both sides of the railway. This has been updated in the Overbridge Options Report.

- f. On Section A-A please show the NR boundary fence.

Agreed, updated accordingly.

Access routes should be considered at the onset and are not hard to incorporate on a drawing with suitable caveats/TBA's. Even if they are indicative only, the CHA will need to see these at the next iteration of the drawings.

- g. The clear span is noted as being based on the boundary fence location plus the NMU route widths. To ensure accuracy/consistency please also show the 20.1m dimension as per Figure 6.

Agreed, updated accordingly.

A29 BEW Lidsey Rife Viaduct (WSCC structure ref: 1780).

Options Report/Technical Note.

The Technical Note (TN) is geared towards either a) a 200m long multi-span viaduct, or b) a 30m single span structure. The reason for the massive variance is as stated in the front of the report, see screen grab below.

However, recent discussions with the Environment Agency have reduced to the flood level to 2.2m AOD at point of crossing. ~~As a result, the structure clearances can be reduced and therefore the multi span bridge is no longer a viable option. For information purposes, the multi span structure proposal is included within the report.~~

Given as much, the vast majority of the content of the TN is of limited use as it only discusses 1 No. viable option. The TN should have addressed various single span options (e.g. weathering steel, U or W beams similar to the Options Report for the rail bridge). As a result, the drawing is certainly of interest but also of limited value (in the context of 'options'). Perhaps the rife bridge could basically be a repeat of the rail bridge (the widths should be identical and the spans are very similar)?

Technical Note updated as required.

WSCC structure ref: 1780 – item 1 – A copy of the revised report is requested at the earliest opportunity. Decisions made within will set the scene for the format of the structure so early sight of this is important to ensure that all parties are in agreement before the design moves towards AIP (presuming planning permission is granted).

General Arrangement

- a. Refer to general comment above regarding NMU route type.

Updated accordingly.

- b. The WSCC naming convention for the bridge needs to appear on all doc' headers and drg title blocks. Again, the name should be clear/specific but the 'WSCC structure ref: 1780' must appear.

Updated accordingly.

- c. It is appreciated that deeper beams result in more fill on the approaches, but with Y6 beams at 1.0m centres there is not enough space between the beams to inspect the inside faces (gap is currently approx. 250mm). Deeper beams at larger centres are necessary.

Changed from Y6 to Y8 beams at 1.2m c/c. Alternatively W13 beams at 3.25m c/c are included in the technical note.

- d. The cantilevers look too wide given how thin the deck slab is(?).

Cantilever reduced due to new Y beams and changes to the highway section.

- e. Typically with a Y beam deck there are YE beams.

YE beams added.

- f. Ideally, WSCC would require inspection & maintenance access points to the underside (steps down the embankments at diagonally opposite corners?).

Access for routine inspections and maintenance to be incorporated in the design at a later stage.

- g. The report touches on the lack of clashing with existing services, but what about new services? There is not a lot of fill to accommodate larger diameter mains. It is appreciated that this is the first submission but WSCC would like to see something on the drawing that is indicative and calls up that the utilities are TBC.

Drawing updated to indicatively show new services within the footways of the bridge. Specific requirements to be confirmed during consultation/enquiries with Statutory Authorities (Utilities).

- 1. Public transport strategy (from developer)** - still awaited. The strategy should include proposed bus services and routes (E-W and N-S), more information about the area shown to the east of the site, such as how it is intended to use it, how it feeds into the public transport strategy for the site and how connectivity to Barnham Station is provided, how 'active travel' is to be incorporated into overall strategy etc. (list is not exhaustive).

Initial conversations have been held with Stagecoach on the provision of a bus service at the site. It has been suggested that a new route between Littlehampton and Chichester could be provided.

Stagecoach has expressed a requirement to discuss the bus strategy and phasing further in a meeting between the applicant, WSCC and themselves. It is therefore requested that a meeting is arranged on this matter.

The requirements for public transport access should include service provision both E-W between Littlehampton and Chichester and also N-S between Bognor Regis to Barnham. WSCC look forward to discussing progress as soon as possible in order to inform ongoing responses to the planning application.

The masterplan accommodates a shared footway/ cycleway that connects the south eastern corner of the masterplan to Gospond Road. This provides a legible and direct route to/ from Barnham Railway Station.

The route described is not particularly direct but would provide for an indirect walking link of approximately five minutes from the BEW site to the station and vice-versa. A cycle journey from the site to the station (and vice-versa) would take about two minutes although would require riders to use the carriageway of both Gospond Road and Barnham Road.

Applicant to provide further details of how a more direct and traffic-free link could be accommodated to and from the site and railway station.

2. Left-in/left-out junctions still proposed at certain locations – These do not look right and may encourage higher speeds. How do these meet any specific design criteria and why are they proposed?

The proposal to introduce the left-in/left-out arrangements for the interim junctions was as a requirement to ensure free flow of traffic along the proposed A29. Throughout consultation with WSCC and ADC the requirement was to limit the number of interim junction and to make the main junctions the facility for all movement.

It is not unusual to have a left-in/left-out arrangement on this type of road and we have reinforced this approach with the introduction of a central island to stop right turning traffic attempting to be completed. The islands are introduced in accordance with the taper indicated in CD123 Table 6.1.1.

The development is supposed to be providing for a community with excellent connectivity instead of severance. Applicant to re-visit the left-in/left-out arrangements with a view to providing them as right-hand turning lanes with no restrictions on movements and also provide traffic flow data for them to indicate proposed usage during peak periods and all day.

3. TRO strategy for entire road scheme – Nothing supplied. In one area, the applicants propose a speed limit reduction from 50mph to 30mph at the southern tie-in with the existing A29. Applicant to provide evidence of speed surveys, consultation with Local Member and whether or not the resultant speed surveys would comply with WSCC policy considerations for speed limit

reductions. Applicants to also state the reasons why the speed limit is proposed to be reduced at this point.

The speed of Lidsey road, specifically around the 'Lidsey bends' although indicated as 50mph is not the reflective of speed of vehicles travelling around the alignment, it is less due to the back-to-back curves just north of our proposed roundabout junction.

As part of early negotiations with WSCC and ADC the location of the proposed A29 connection was considered a benefit in controlling speed in this area.

A TRO strategy for the entire development will be developed as part of the detailed design and will include speed reduction in the location of the A29/Lidsey Road connection.

The TRO strategy is a key principle required at the planning stage because it is so intrinsically linked with the design of the new A29 and connections thereto. Undertaking informal consultations with the Local County Councillor/s and other key parties now will provide an indication as to whether the proposed changes would be accepted or not, in-turn informing the design of the scheme prior to the detailed design stage. Undertaking this post-planning could meet with objections and subsequent delay in delivery of the scheme and could, in the worst case, prevent the development from proceeding if the design cannot be aligned with the posted speed limit.

Added to this, the applicant should also set-out their proposals for any TRO's within the development parcels, such as at or close to, the proposed station parking and school site.

Details of how to do this can be made available to the applicant on request.

4. **Cycle infrastructure** – The alignments towards the side roads would benefit from being made smoother. And no continuation of routes from new A29 alongside access roads nor transitions shown. Please also provide evidence of what design documents the crossings comply with/follow, please.

On the main A29 the cycle/footway is segregated, on the side roads it changes to shared. The transition can be developed further at the detailed design stage. The interaction and specific layout of the segregated route and crossing is in line with LTN1/20.

As the red boundary edging extends around the side roads and, as such, meaning they form part of the detailed component of the planning application, the detail is required now.

5. Access to commercial buildings at southern tie-in with existing A29 –
No detail shown.

The existing access into the Commercial buildings just north of proposed A29/Lidsey Road roundabout is to be maintained. PF drawing A13394-PF-ZZ-XX-DR-CD-00106 P06 attached.

Because of the proposed changes to the southbound approach to the southern tie-in of the existing A29 with new A29 will alter part of the existing access to the commercial buildings, the junction needs to be assessed for all vehicles that use it, including provision of swept path diagrams to demonstrate suitability for all types of vehicles using it and visibility splays (including forward visibility) need to be provided. And if it has not been included in the Road Safety Audit Brief, it needs to be added.

6. Travel Plan – The applicants should review the WSCC Development Travel Plans Policy as the Travel Plan doesn't appear to follow it. The submitted Framework Travel Plan does not seem to reference promotion of lift sharing (e.g. through www.westsussexcarshare.com) or the provision of car club vehicles. The latter will be particularly important given that car clubs have the potential to 'unlock' use of non-car modes. Copies of all the relevant WSCC TP documents can be sent to the developer separately to this response upon request.

An updated travel plan to include car sharing and car clubs is appended to this response.

The revised Travel Plan cannot be located – applicant to provide, please. And when provided, applicants to highlight how (and where) they have amended it and how it meets the requirements of the WSCC guidance.

7. Modelling - The information is not presented clearly. WSCC would expect the applicants to quantify the uses in the application itself at the start of section 4 and to fully set-out the quantum of development modelled for each scenario in section six. However, the information provided at 6.1.4 is non-specific with a general description which is not enumerated/quantified. However, it does strongly suggest that the applicant has only included the application itself, other committed sites and the other sites within the BEW Local Plan allocations. There is no mention of development within the BEW area beyond the Local Plan period or quantum. This should be clarified.

In particular there would be the opportunity to set out at the 4th bullet under 6.1.4 the quantum associated with each developer included in the modelling. Looking at the model scenarios seems to show that all the strategic modelling provided is that which the CHA saw previously (2 years?). As such, it appears that no new runs have been undertaken. Further runs could be undertaken given that the applicants paid for three years continuous access to the A29 model. Therefore, the option has been available to the applicants to amend the previous work without needing to renew their access fee. So, any comments the CHA made previously to do with the then assessed 2031 and 2038 scenarios may still apply if no new work has been undertaken, unless the applicants can tell us what they have done differently. It would be helpful to the CHA to see again see what information was provided previously showing the quantum assessed and it's split between the various land parcels. And building on this, what would also be very helpful is an account of any differences between the pre-application scenarios and also whether numbers proposed now for individual plots are now higher than originally planned and/or modelled and whether that impacts on an overall number of dwellings within BEW overall, higher than the Local Plan allocation.

The years which they have modelled are those which exist in the strategic forecast model for the A29. However, given that if approved this part of the development (at least the houses and part of the new A29 and associated access roads off it) would be constructed prior to 2031 and 2038, WSCC will require forecast years for opening year and interim/intermediate years when certain infrastructure is not yet in place. This may need to be on the basis of manual adjustments or failing that, the applicants would need to agree methodology with the CHA for development of a new model forecast year. The manual method seems simpler. The applicants do need to provide details of opening year and scenarios where they are reliant on a single point of access (and until when)?

An extensive pre-application discussion was held with WSCC and WSP to determine and agree the modelling approach, scenarios, inputs, and assumptions.

To clarify, the modelling has included all traffic growth associated with committed, local plan, TEMPro and the proposed development for all of the traffic scenarios where appropriate. It is understood that WSCC advised their consultant WSP on all of the housing commitments and local plan sites to be considered.

The BEW development zoning and infrastructure parameters have been shared previously, but are attached for each of reference.

In terms of the number of dwellings assumed for the other parts of the BEW allocation, the table below provides a summary.

Site	Modelled in the BEW assessment	Current Planning Scale
Cala	350	No new information available
Landacre and Boweries	45 and 30 dwellings	45 and 30 dwellings
Barratt	510 dwellings	550 dwellings
Pye Homes	165 dwellings	180 dwellings

It is acknowledged that the modelling has considered 55 fewer homes than the current planning assumptions. To put this scale of development in context, the additional AM and PM peak hour vehicle trips have been calculated based on the agreed residential trip rates for the BEW development. This equates to 25 and 26 vehicles in the AM and PM peak hours respectively and it is considered that this would not change the conclusions of the transport assessment. It is also noted that these trips would not all have their origin/destination in a single part of the BEW allocation, and therefore are further dispersed within the overall highway network.

The modelling demonstrates that the scale of development considered in the outline application can be accommodated in 2031. It is therefore reasonable to infer that the development can also be accommodated in the years proceeding 2031. It would be appreciated if WSCC could also be more specific in their requirements rather than referring to "certain infrastructure".

The applicant has not provided adequate answers to the questions raised by the CHA. And, the applicant needs to demonstrate how the development (and what scale) would impact on local roads and junctions in advance of the modelled years (and when that impact would occur and what mitigation would be provided in those scenarios).

- 8. Noise attenuation** – What is required and what is proposed? WSCC would want confirmation that the type selected has a long design-life (so steel – not wood) and that its location would be such that it didn't present any highway safety issues and could be easily accessed for maintenance purposes.

This is noted. Noise attenuation proposals would be similar to those being implemented in Phase 1 of the A29 realignment by WSCC. Full details would be developed at Detailed Design Stage.

The CHA requires that a plan showing the indicative locations be provided at this stage given the importance of getting locations right prior to the application being determined. Of course, noise assessment is a matter for Arun Environmental Health and they need to advise as to whether the mitigation provided is appropriate. However, WSCC will need to respond to the type of measures proposed and where they are to be located relevant to junctions, carriageway, foot and cycle paths and visibility splay areas.

Further CHA comments following further review of the new A29 road alignment and A29 Design Statement (applicant to reply to in a Technical Note).

1. General

- 1.1 It is unclear what the approach gradients on the roundabouts are. Where the proposed approach gradients to the new roundabout exceeds 2%, CD 116 says roundabouts should be avoided. The approach is considered as a distance equivalent to 1.5 times the SSD from the give way line. Applicant to confirm what the gradients are.
- 1.2 Whilst geometric parameters are shown on each entry appear to be within the requirements of CD 116, the designers will need to provide drawings showing how they have been constructed/drawn, e.g. entry angle, curvature, half width etc.
- 1.3 Exit widths are narrower than recommended in CD 116 cl 3.28.2. Applicant to address.
- 1.4 Circulatory visibility may be affected by chevrons and advance direction signs. So, at detailed design stage, applicant to ensure that these do not affect circulating and visibility to the right.
- 1.5 The design audit would usually be presented in a tabular form with a column identifying the parameter, another showing the applicable standard and clause, another showing what the design proposes and the other showing whether or not a departure from standard is being sought. As such, it is still not clear whether any departures are being sought.
- 1.6 Pedestrians crossing the roundabout shall be located within 20m of the give way line or more than 60m from the give way line.
- 1.7 Applicant to ensure that potential earthworks and landscaping do not affect pedestrian visibilities.

2. A29 – 13 Roundabout, Dwg. No. 00106P06 & 0054P04

- 2.1 On the southbound approach to the roundabout, forward visibility to the uncontrolled pedestrian crossing (at the exit) is not shown. These will need to be shown and consideration given as to whether they can be achieved within the existing highway boundary. Applicant to show on amended plan.
- 2.2 A circulatory carriageway of 5.5m is proposed, which is within the requirements of CD 116. However, in addition to this, swept paths of an appropriate design vehicle are required to demonstrate that overrun areas are not required.
- 2.3 It is unclear what the lane widths at the give way line on each approach are, as they are not dimensioned. Designer to note that lane widths at the give way line should not exceed 4.5m for normal roundabouts.
- 2.4 The southbound forward visibility on the approach to the give way line is 40m, which is lower than the required 90m. It is also unclear if the visibility to the pedestrian crossing is achievable on this arm. Applicant to review and reply to the CHA.
- 2.5 Landscaping is not shown on the drawings but designers need to ensure that the circulatory visibility is maintained when landscaping is provided.
- 2.6 Road markings are proposed to narrow the lane widths at the uncontrolled pedestrian crossings on splitter islands. This may mean that pedestrians have to wait at the marking instead of at the kerb. CD 116 says the use of hatching should not be used to reduce the entry width in areas adjacent to pedestrian crossing points. Applicant to reply to this.
- 2.7 Provide diagrams to show how the geometric parameters have been constructed, e.g. entry angle, entry path curvature/radius.
- 2.8 Exit radius should not exceed 40m, otherwise speeding on exits occurs, particularly where pedestrian crossing points are located on the exits. In A29-13, all exits have radii in excess of the 40m suggested in CD116. In the case of the southbound exit, the radius exceeds 100m, which is considered excessive. Ref CD 119 clause 3.29.2 – 3. Applicant to reply to this.

3. A29-11 Roundabout, Dwg. No. 00503P04 & 00503P04

- 3.1 Applicant to confirm whether or not the toucans and parallel crossings are level or are on raised tables or not. DfT authorisation will be required to place toucan and parallel crossings on road humps if they are.
- 3.2 The circulatory carriageway is 6.5m when using the ICDs given on the drawing. However, when using information given on drawing number 00503P04, it is 6.65m. Actually, the circulatory carriageway width seems to vary when calculating using information on each arm. Applicant to clarify.

3.3 Circulatory carriageway width does not meet requirements on three arms. Applicant to review.

3.4 Provide drawings to show how the geometric parameters have been constructed.

3.5 Show the pedestrian crossings visibilities.

3.6 The proximity of the parallel crossings mean that exit blockage will be likely, resulting in blockage of the circulatory carriageway. Applicant to respond to this and set-out what has informed the location/s and how they meet design requirements (or not).

4. A29-9 Roundabout, Dwg. No. 00502P04 & 00107P06

4.1 See above with regards to drawings showing how the various parameters have been constructed.

4.2 The circulatory carriageway width is shown exceeding the 1.2 times relationship with entry widths. With single entries and exits but a wide circulatory carriageway, there could be conflict at the exits. A technical note is required explaining the design of this parameter.

5. A29-4 Roundabout, Dwg. No. 00500P04 & 00103P06

5.1 See above with regards drawings showing how the various features were constructed, e.g. entry angle etc.

5.2 Potential earthworks and landscaping are shown in what could affect pedestrian crossings visibilities.

6. A29-5 Roundabout, Dwg. No. 00501P04 & 00105P06

6.1 Two lane entries are proposed on all arms. Whilst two exits also have two lanes, the north west exit is a single lane, raising concerns about 'race' to the exit. Applicant to respond to this.

6.2 Confirmation is required regarding the location of the pedestrian crossing points, i.e. are they within 20m of the give way line?

6.3 Circulatory carriageway ratio to widest entry exceeds the requirements of CD 116. Applicant to review.

6.4 Please review if zig-zag markings can be used in conjunction with other road markings, in case contradictory messages are conveyed.

7. A29-14 Roundabout, Dwg. No. 00505

7.1 See section 1 above.

7.2 Entry path curvature on the northbound approach appears shallow, raising concern that braking can be expected to occur at or close to the give way line.

8. Vertical and Horizontal alignments

8.1 Detailed longitudinal profiles and plan with chainages have not been provided.

Other matters.

1. *Walking and cycling links (and connections thereto)* - Links across and outside of site by Phillip Howard and the western-end to be provided by the developer. As it's one of the main strategic routes it needs to be constructed fully. This also applies to other routes where links enter and leave the site. Developer to liaise with PH school and PRow team.
2. *Railway crossings (E-W and N-S) including crossing of adjacent railway lines (main line and Bognor-Barnham branch line – latter in proximity of the old canal)* – Applicant to set-out their strategy for grade-separate crossings.
3. *Parking strategy (throughout the development and for proposed station parking)* – Applicant to provide their strategy for any parking restrictions throughout the development and at, and close to, the proposed station parking area.
4. *Road Safety Audit Decision Log/s* – Applicant to provide these in WORD format compliant with GG119.

Please re-consult when additional information and replies to the above comments is/are received, at which time the CHA will review the proposals further.

Thank you.

Tim Townsend
West Sussex County Council – Planning Services

