

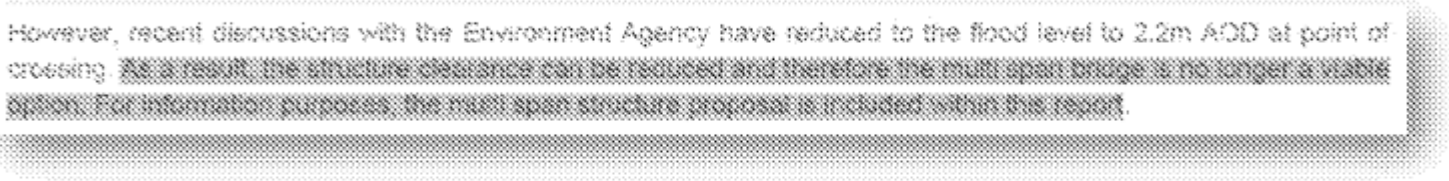
Topic	PF Response
WSCC response and questions	
1. Design speed – This is still quoted as 30mph. However, no reference to the WSCC Speed Limit Policy is provided. As such, the applicants should set-out whether-or-not the new A29 road accords with that Policy.	The Design of the A29 is seeking to align 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). It is also worth noting that following the discussions highlighted above a 30mph speed has been approved for northern section of the new A29. 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 <i>‘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’</i> 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: <u>“Building Line:</u> • <i>Buildings should create a continuous frontage along the A29 to achieve a degree of formality and enclosure.</i> • <i>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.”</i>

	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.
2. <i>Departures from Standard</i> – 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%)
3. <i>Crossings</i> - 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 point, 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. As highlighted in our Technical Note the design speed is proposed at 30mph.

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, 2 nd 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.
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.
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 clearance 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 this report. Given as much, the vast majority of the content of the TN is of limited use as it only discusses 1No. 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.
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).
5. 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 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.
6. 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
7. 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.

8. <i>Cycle infrastructure</i> – 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
9. <i>Access to commercial buildings at southern tie-in with existing A29</i> – 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
10. <i>Travel Plan</i> – 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.

11. 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 dwelling 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”.

12. 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.
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