

Topic	PF Response
WSCC First round of questions (Additional comments received from WSCC in Red, PF responses in Blue)	
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. The matter of Speed Limit is undergoing further discussion in-house at WSCC and a further, more detailed response, will follow in due course. At the meeting on 2nd August WSCC confirmed they will provide some thoughts on the issues they consider critical to achieving the WSCC Speed Limit Policy. Following the issue of this information WSCC and PF to arrange a workshop.
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 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 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.

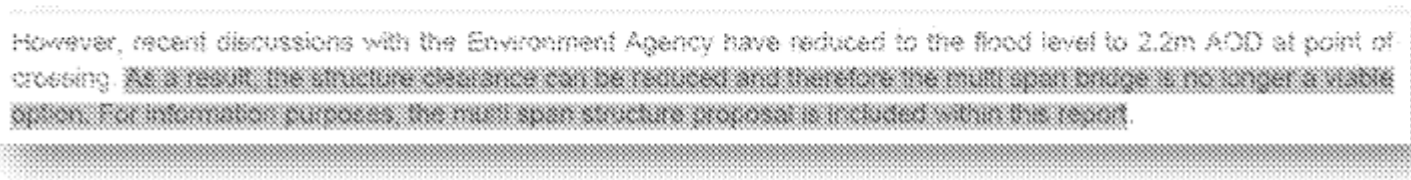
The CHA still need to see the applicant's strategy for crossing positions and consideration of controlled crossings elsewhere along the A29- re-alignment

Crossing point/positions on the A29 are shown on the PF General Arrangement drawings A13394-PF-ZZ-XX-DR-CD-00100 to 109. This can be further discussed at the workshop proposed between WSCC Highways and PF

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 wherever 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 the bridge span grows as a result and the construction depth of the bridge will likely need to increase to cope with the extra span (and likewise, if the segregated route over the bridge are widened). For the routes underneath, this will have knock on effects to the height of the carriageway above the landscaping and the length of the approaches. In any event, so long as the correct route widths are incorporated (relative to shared or segregate decision), the CHA does not need to know what the final decision is in order to ensure technical compliance to the 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. We have provided segregated whereby cycling traffic is anticipated significant. Shared facilities are provided in less prominent routes. Although Segregated Facilities are preferred in LTN 1/20 this is not a requirement. Connectivity through the site in either segregated or shared form is a critical item.
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 reiteration of the drawings. The principals of access routes have been broadly discussed with NR. They are not in a position to confirm exact details but the provisions shown on PF GA drawings A13394-PF-ZZ-XX-DR-CD-00101 and A13394-PF-ZZ-XX-DR-CD-00102 (a 5m maintenance strip) NR have been supportive in principal of this arrangement. Full details of access and how this interacts with the aligning parcel to be developed.
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. 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). Revised Technical Note re-issued

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 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. We have spoken to Stagecoach and they have advised that there would be prepared to consider operating the E-W service between Littlehampton and Chichester. It is considered that given the outline application is for the land north of the railway, Stagecoach would have evaluated the options available and presumably has proposed what they consider to be appropriate. Stagecoach are aware of the wider allocation and potential opportunities but it is understood that their comments are in relation to the outline application. This does not restrict further conversations taking place in the future, and it is anticipated that consideration would need to be given to other bus route options when the planning application for the land south of the railway comes forward at some point in the future. 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 in 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 We investigate with NR alternative routes (using their land) unfortunately they confirmed that this was still used. We have therefore used the most appropriate route available. We have held recent meetings with NR and they have confirmed this approach is acceptable. 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.
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 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 flows data for them to indicate proposed usage during peak periods and all day. The development will have excellent connectivity for NMU. The idea of the scheme was agreed not to make it simply attractive to car users. The key goal is to balance the needs of the A29 as a strategic connection so minimising the interventions in the road and diverting traffic away from the existing A29; whilst in parallel encouraging those living within the new development to use the NMU connections rather than prioritising car use The initial advice from Arun District Council was to have a route with as limited a number of junctions as possible. The principal proposals on junction locations north and south of the proposed bridge were discussed at length with ADC.
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. The TRO Strategy is a key principle required at planning stage because it is so intrinsically linked with the design of the 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 <u>prior</u> to the detailed design stage. Undertaking this at post planning could meet with objections and subsequent delay in the delivery

	of the scheme and could, in the worst case prevent the development from proceeding if the design cannot align 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. As requested at the meeting on 2nd August WSCC to provide additional information. The Lidsey Bends area of the old A29 is downgraded at the introduction of the new A29 and therefore it is suggested that the speed be reduced around the bends and at the introduction of the new junction connection. We will consider the comments received at the meeting with WSCC on 2nd August concerning how we manage the speed reduction on the A29 and will provide additional information in due course. For the Proposed A29 this is a 60kph (30mph) design speed
8. 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. As indicated on our drawings and Design Summary Document main A29 a segregated route is proposed. On E/W Link, on Banham Station Link and within parcels a 3m wide shared route is proposed. Any individual plot strategy going forward will incorporate cycle infrastructure and links.
9. 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 the 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 the 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 has not been included in the Road Safety Audit Brief, it needs to be added. This has been further answered in the second round of comments/answers to WSCC
10. 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. It is noted that this is a framework travel plan, and more detailed documents would need to be prepared as part of reserved matters applications. The travel plan follows a standard format, and includes what would typically be included e.g. actions, targets, management process, and implementation and funding. Clarification is sought from WSCC on what specifically needs to be amended. 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. Travel Plan re-issued with this document

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.

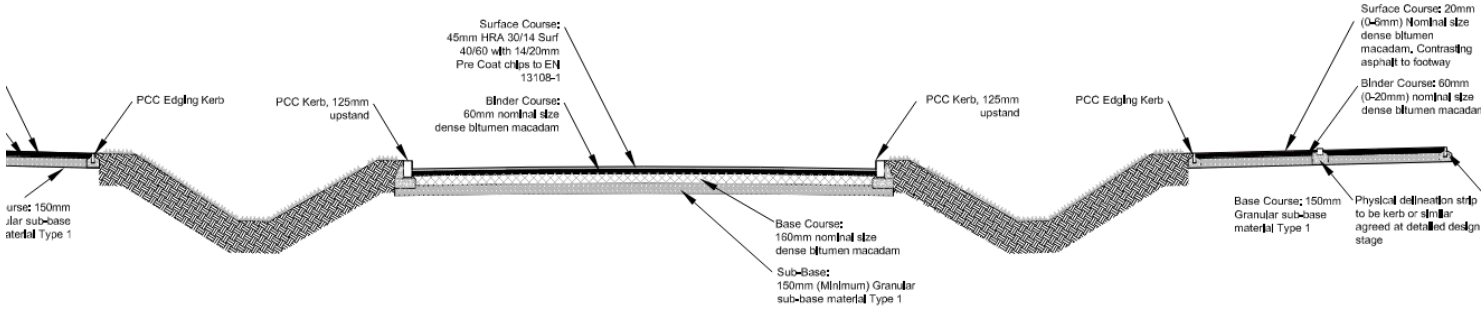
The modelling demonstrates that the scale of development considered in the outline application can be accommodated in 2031. It is therefore reasonable to infer that the development can also be accommodated in the years proceeding 2031. It would be appreciated if WSCC could also be more specific in their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

	The applicant has not provided adequate answers to the questions raised by the CHA. And, the applicant needs to demonstrate how the development (and to what scale) would impact on local roads and junctions <u>in advance</u> of the modelled years (and what impact would occur and what mitigation would be provided in those scenarios Additional information on the scope of the modelling (detailing the assumptions in terms of development and background traffic growth) is appended. As noted above, the modelling demonstrates that the scale of development considered in the outline application can be accommodated in 2031, including the mitigation schemes identified in the apportionment study. It is therefore reasonable to infer that the development can also be accommodated in the years proceeding 2031. Further to the meeting held on 2/8/22, it is understood that further clarification is required on the modelling results from the 2038 scenario (which includes the full build out of the site allocation). This information will be issued as part of a separate response.
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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. The CHA requires that a plan showing the indicative locations be provided at this stage given the importance of getting the locations right prior to the application being determined. Of course, noise assessment is a matter for Arun Environmental Health and the need to advise as to whether the mitigation provided is appropriate. However, WSCC will need to respond to this type of measures proposed and where they are to be located relevant to junctions, foot and cycle paths and visibility splay areas. We are currently consulting the noise consultant but confirm it is not envisaged that noise attenuation is required. It is noted however if introduced that Steel type is preferred. We also note that the position of any noise attenuation must not affect visibility or impede routing for NMU.
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WSCC comments dated 10 th May 2022																															
Cycle track width to be widened to provide for two-way flows on both sides of the new road	Our design currently has a 2m cycleway either side alongside the footway which in accordance with LTN 1/20 allows for a maximum of flow of cycles at 200 per peak hour, see extract below: Table 5-2: Cycle lane and track widths <table><tr><th>Cycle Route Type</th><th>Direction</th><th>Peak hour cycle flow (either one way or two-way depending on cycle route type)</th><th>Desirable minimum width* (m)</th><th>Absolute minimum at constraints (m)</th></tr><tr><td rowspan="3">Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)</td><td rowspan="3">1 way</td><td><200</td><td>2.0</td><td>1.5</td></tr><tr><td>200-800</td><td>2.2</td><td>2.0</td></tr><tr><td>>800</td><td>2.5</td><td>2.0</td></tr><tr><td rowspan="3"></td><td rowspan="3">2 way</td><td><300</td><td>3.0</td><td>2.0</td></tr><tr><td>>300-1000</td><td>3.0</td><td>2.5</td></tr><tr><td>>1000</td><td>4.0</td><td>3.0</td></tr></table>				Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)	Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5	200-800	2.2	2.0	>800	2.5	2.0		2 way	<300	3.0	2.0	>300-1000	3.0	2.5	>1000	4.0	3.0
Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)																											
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	2 way	<300	3.0	2.0																											
		>300-1000	3.0	2.5																											
		>1000	4.0	3.0																											
A ‘step’ shown to differentiate foot and cycle components of the paths referred to in point 1 above should be shown.	We anticipate less than 200 cycles per hour. PF drawing A13394-PF-ZZ-XX-DR-CD-00001 P05 shows a physical delineation strip between footway and cycleway. A step can be incorporated but not specifically required and will complicate the drainage provisions along the footway/cycleway. If this is a WSCC design requirement it can be included as part of the Detailed Design without changing the principals of the design.																														
No continuation of cycle routes is shown into the side roads.	On the main routes (at the roundabout intersections) we have shown a 3m wide combined footway/cycleway. For the minor connections cycle routes will be developed alongside the plot design if required. This information will be submitted as part of the relevant reserved matters applications for the plots.																														

Central islands preventing right hand turns. These appear to be very narrow and may lead to signs being hit by vehicles on either-end and may, in practice, lead to higher traffic speeds past them. And, no rationale is provided as to why they are proposed. Applicant to look to provide right hand turning lanes instead for the locations where the central 'barriers' are shown.	The central island physical widths are 1.5m and therefore a sign can be centrally located (for example a left turn only sign) with a 0.45m offset from the kerb edge. Additionally, the proposed 1040 hatch markings which add another 1m either side provide additional protection. During initial discussions with Arun District Council and West Sussex County Council the team were advised to minimise full access junctions to maintain throughput of traffic. Therefore, under the direction of WSCC we provided central roundabouts linking through traffic and limiting side road traffic to left-in/left-out.
The access to the industrial/commercial facility north of roundabout (Lidsey Farm) is not clearly shown, nor does it appear to have been considered in the Road Safety Audit, nor tracked for the size and type of vehicles that use it. As the kerb line is being altered and given its proximity to the new roundabout on Lidsey Road, this information must be provided, please.	The existing access to Lidsey Farm is to be maintained and is reflected on the submitted highways plans. A visibility splay of 41m can currently be achieved in land which is either public highway or land owned/ the existing access /controlled by The Southern Consortium. Please see attached drawing A13394-SK034.
No detail is shown of the transition of the roundabout on existing A29 and the existing right hand turning lane, also on existing A29 (the latter serving the waste site). This point has also been picked up in the submitted Road Safety Audit.	Please find attached a revised version of drawing A13394-PF-ZZ-XX-DR-CD-00107 incorporating the existing Ghost Island junction on south of the proposed Hanbury Link Roundabout serving the waste site.
Roundabout referred to in point 7 above should be tracked for a selection of vehicles including HGVs.	Please see attached drawing A13394-PF-ZZ-TR-DR-CD-00002 which shows tracking of HGV's on the existing A29 and Refuse vehicle tracking accessing Hanbury Link
Crossing points – There are a large number of crossing points shown – some controlled and some uncontrolled. Applicant to explain rationale behind them including type of crossing proposed, locations chosen and whether any informal ones are included?	As indicated in our previous response: 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. Key links across the proposed A29 (away from junctions) have been primarily shown as Signal Control crossing points to ensure clear and controlled links across the site.

Applicant to explain the same (i.e. that set-out in point 9 above) for the proposed crossing points around the roundabouts.	In line with LTN 1/20 we have proposed Parallel ‘controlled’ crossing points around the main roundabout junction as primary links across the site. On the main A29 we have shown a refuse to protect users on the side roads the length of crossing is reduced. Providing a parallel crossing aligns with the segregated nature of the main routes and allows for continued use of the links on both sides of the proposed A29.
Speed limit reduction on approaches to new road and associated links (on existing A29) – what evidence of data collection and information consultation has been carried out?	No, we do not currently have any speed surveys. It is appreciated that the road is currently shown as a 50mph speed limit but because of the nature of the road, surrounding elements and Lidsey Bends to the north actual speeds are closer to 30mph. Aligned with the true speed of the road and our proposed junction arrangements we suggest that 30mph be implemented in this location.
Applicant to explain rationale for ‘no kerbed’ new A29, road width of the same and what effect these might have on traffic speeds.	Not sure where this has come from as the proposed A29 is kerbed, please see below section from PF drawing A13394-PF-ZZ-XX-DR-CD-00001 P05  The diagram shows a cross-section of a road with a central carriageway and two footways. The central carriageway is flanked by PCC Kerbs, 125mm upstand. The footways are flanked by PCC Edging Kerbs. The pavement layers are as follows: Surface Course: 45mm HRA 30/14 Surf 40/60 with 14/20mm Pre Coat chips to EN 13108-1; Binder Course: 60mm nominal size dense bitumen macadam; Base Course: 160mm nominal size dense bitumen macadam; Sub-Base: 150mm (Minimum) Granular sub-base material Type 1. The footway surface is 20mm (0-6mm) Nominal size dense bitumen macadam, Contrasting asphalt to footway. The footway sub-base is 150mm Granular sub-base material Type 1. A Physical delineation strip to be kerb or similar agreed at detailed design stage is shown on the footway.

WSCC comments dated 23 rd June 2022	
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.	As indicated on PF drawings A13394-PF-XX-DR-CD-00400-00407 there are no gradients that exceeds a 2% on the approach to the proposed roundabouts. Drawings A13394-PF-XX-DR-CD-00400-00407 have been updated to indicate the exact position of the proposed roundabout on each of the long sections. Roundabout design levels to be developed further at detailed design stage.
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.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
Exit widths are narrower than recommended in CD 116 cl 3.28.2. Applicant to address	Exit widths have been based upon tracking and required carriageway, additional information shown on PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
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.	Noted, these elements will be developed and confirmed as part of the detailed design
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.	We did enquire about the layout of the Design Audit during discussions with WSCC, however a preferred arrangement was not indicated. All design detail is shown on the drawing and within the Design Summary Document
Pedestrians crossing the roundabout shall be located within 20m of the give way line or more than 60m from the give way line.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505 confirming that all crossings are within the 20m maximum

Applicant to ensure that potential earthworks and landscaping do not affect pedestrian visibilities	Noted, these elements will be developed as part of the detailed design to maximise pedestrian visibilities
A29 - 13 Roundabout, Dwg. No. 00106P06 & 0054P04	
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.	Visibility added to drawing
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.	Tracking carried out on all roundabouts PF drawings A13394-PF-ZZ-XX-DR-CD-00700 to A13394-PF-ZZ-XX-DR-CD-00705
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.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
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.	Forward visibility is dictated by land we own or land within the public highway. Visibility to crossing point added to PF drawings.
Landscaping is not shown on the drawings but designers need to ensure that the circulatory visibility is maintained when landscaping is provided.	Noted, these elements will be developed and confirmed as part of the detailed design
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.	Noted as item 3.15 of CD116. Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505

Provide diagrams to show how the geometric parameters have been constructed, e.g. entry angle, entry path curvature/radius.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
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.	Please note as indicated in CD116 item 3.29.3 - Where an exit kerb radius of 40 metres cannot be achieved, the exit kerb radius should be no less than 20 metres and no greater than 100 metres.
A29 - 11 Roundabout, Dwg. No. 00503P04 & 00503P04	
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.	It is not intended that any of the crossings are raised table type. Only the green link is proposed at present to be of a different finish across the carriageway to increase its importance. The exact surfacing material will be agreed at Detailed Design Stage. This is to be further discussed in the up and coming workshop with WSCC
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.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
Circulatory carriageway width does not meet requirements on three arms. Applicant to review.cx1	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
Provide drawings to show how the geometric parameters have been constructed.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
Show the pedestrian crossings visibilities.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
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).	As indicated previously crossing point locations and links east/west have been strategic. It is not possible to have a crossing across the entry and not at the exit otherwise pedestrians will be stranded in the central reservation.

A29 - 9 Roundabout, Dwg. No. 00502P04 & 00107P06	
See above with regards to drawings showing how the various parameters have been constructed.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
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.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505 Please note however, Item 3.6 of CD116 indicates the width of the circulatory carriageway for normal or compact roundabouts shall be between 1.0 and 1.2 times the maximum entry width , excluding any overrun area.
A29 - 4 Roundabout, Dwg. No. 00500P04 & 00103P06	
See above with regards drawings showing how the various features were constructed, e.g. entry angle etc.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
Potential earthworks and landscaping are shown in what could affect pedestrian crossings visibilities.	Noted, these elements will be developed and confirmed as part of the detailed design
A29 - 4 Roundabout, Dwg. No. 00501P04 & 00105P06	
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.	This is not unusual. Two Lane exits serving the internal parcels is not required and would not be in-keeping with the road strategy. As you have noted we maintain two lane entry and exit along the main A29 route
Confirmation is required regarding the location of the pedestrian crossing points, i.e. are they within 20m of the give way line?	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
Circulatory carriageway ratio to widest entry exceeds the requirements of CD116. Applicant to review	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505 Please note however, Item 3.6 of CD116 indicates the width of the circulatory carriageway for normal or compact roundabouts shall be between 1.0 and 1.2 times the maximum entry width , excluding any overrun area.

Please review if zig-zag markings can be used in conjunction with other road markings, in case contradictory messages are conveyed	This can be reviewed at detailed design stage, however the current arrangement is in line with best practice.
A29 - 14 Roundabout, Dwg. No. 00505	
See section 1 above.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
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.	Additional information has been added to PF drawings A13394-PF-ZZ-XX-DR-CD-00500 to 00505
Vertical and Horizontal Alignments	
Detailed longitudinal profiles and plan with chainages have not been provided.	Long section details have been shown on PF drawings A13394-PF-ZZ-XX-DR-CD-00400 to A13394-PF-ZZ-XX-DR-CD-00407. These shown chainages of the main A29 and the corresponding long sections. We have added Roundabout locations to the long sections for ease of reference
Other Matters	
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	Discussions have been held with the PROW team and comments have been provided.
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.	The planning application is for land north of the railway, and it is considered that these matters would be addressed as part of a planning application for land south of the railway.
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.	Car parking would be provided in line with WSCC policy. A 200 space car park is being provided to support travel to and from Barnham Railway Station. Discussions are ongoing with Network Rail to understand the future management of the car park. Parking restrictions would only be required if an issue emerges in the future. Analysis of the demand for station parking (generated by the proposed development) suggests that the 200 spaces would be sufficient to accommodate the forecast demand.

Road Safety Audit Decision Log/s — Applicant to provide these in WORD format compliant with GG119.	RSA1 response provided in GG119 format included in this submission.