

3062 - Design comments/tasks to be completed/addressed

item	Comment/Task	Category	Response	Date
1	7.3m carriageway road, 1.0m hard strip (tarmac or paving), 2.0m grass verge, 3.0m shared footway/cycleway and a 1.0m strip to form the back of the adopted highway.	Cross section	New cross section arrangement applied across the proposed scheme	
2	Pegasus crossing x2	Pedestrian crossing	Pegasus crossing introduced in indicated location.	
3	Signal controlled crossing	Pedestrian crossing	Signal controlled pedestrian crossing introduced in indicated location.	
4	Tie in to current Phase 1 layout (roundabout footways)	Road/footway arrangement	Tie in to residential Phase 1 layout shown indicatively on plans.	
5	Notes on all link road plans state that the proposed link road design speed as 30mph – This is to be amended to correct Kph value as specified in DMRB CD109. It is assumed this relates to a design speed of 60kph for a 30mph speed limit. Please amend.	Design speed	Notes changed to show 60kph design speed.	
6	Link Road Cross Section including 2m wide maintenance strip; 2m wide grass verge; 3m wide shared footway / cycleway and 1m wide verge to rear is subject to change – final details to be agreed following discussions re crossing types and NMU provision along link.	Cross section	See item 1	
7	Lining tapers on approach to refuges shown to be at absolute min taper of 1 in 20. Please amend to preferred min taper of 1 in 40 (TSM Table 2-7)	Road markings	Tapers and corresponding road markings changed to 1:40.	
8	Lining tapers on approach to refuges – Lining showing as running up to refuge kerbed edge. Need to ensure the offset between kerb face and inside of lining not less than 150mm	Road markings	150mm offset introduced between refuge islands and road markings.	
9	General Note – Re Cross Sections plans 100-P-200 to 100-P-212: Labelling of the elements within the cross section would be beneficial.	Cross sections	Cross section drawings has not been revised at this stage. This will be picked up at Section 38 detailed design stage. Fore will explore possibilities of labelling cross section elements. Alternatively Fore can prepare typical cross section drawings to indicate sectional configuration of proposed road.	
10	Cross Section 100-P-200 indicates circa 3m level difference between Hermit Lane and link road – Please see below re retaining structure.	Retaining structure	Details of retaining structures to be provided by Queensberry.	
11	Cross Section 100-P-207 (Roundabout South) shows a gradient of 0.12% across the inner circulation which is considered too flat, however this can be picked up during the technical approvals process.	Road model	Road model to be revised at Section 38 detailed design stage. Comment accepted.	
12	Kerbing Layouts 1100-P-001 to 1100-P-003 do not include for any bus stop infrastructure requirements, however this can be picked up during the technical approvals process.	Kerbs	Bus stops have been added and corresponding kerbing arrangement has been provided. Updated kerbing layout drawings will be issued at later stage.	
13	Road Marking Plans 1200-P-001 to 1200-P-003 to be checked / reviewed in detail as part of the technical approvals process, however see above comments relating to tapers and offset requirements.	Road markings	Road markings have been revised across the proposed scheme.	
14	Geometric Design Check spreadsheets for both internal roundabouts do not contain the “Design Actual” distances for Visibility on Approach and Visibility on Entry. The spreadsheet includes Yes within the column titled Acceptable. Please provide actual distances for each arm for Visibility on Approach and Visibility on Entry.	Design check	Both roundabout and roundabout approaches visibility checks will be performed upon updating 3D road model. However high level visibility checks have been done allowing to state 'yes' in corresponding fields. Notes regarding visibility on approaches have been added. Further details can be provided at Section 38 detailed design stage.	
15	Geometric Design Check spreadsheet required for the highway link(s) to DMRB CD 109	Design check	Geometrical parameters for the proposed roads are shown on longitudinal profile drawings. The design parameters have been discussed, consulted and agreed with BMBC during initial design process. Further details can be provided at Section 38 detailed design stage.	
16	Barnsley Road Link Road Plan General Arrangement re 3062 100-P-002 shows the proposed ramp to Hermit Lane , however no details provided in relation to the gradient – Please provide.	Ramps	Initial design of the ramp gradient was set at 4.5% max. New arrangement has not been modelled yet, however 5% gradient will be used as the maximum threshold. To be addressed at Section 38 detailed design stage.	

17	<p>Previous comment made in respect of the severance of Hermit Lane by the proposed link Road and lack of suitable turning provision: <i>The proposed layout and link road essentially severs Hermit Lane to the West and East of the site and whilst connections are shown these need to ensure permeability or connectivity within and through the site for cyclists as well as pedestrians is provided for in an acceptable manner as stated above. Furthermore, the masterplan appears to show severance is made without turning provision for the design vehicle (this arrangement is also shown on the link road GA plan ref A3-100-P-008 which is not acceptable). Details will be required to demonstrate that suitable turning facilities are provided and layouts without such precision will be deemed unacceptable. In addition, I do have general concerns over the isolated nature of severance of Hermit Lane to the East, and the potential for anti-social behaviour at this locale.</i> This comment remains applicable with reference to Barnsley Road Link Road Plan General Arrangement re 3062 100-P-002 – A suitable turning area is required.</p>	Road layout	Turning head has been provided.	
18	There is no reference of selected forward design speed used on the swept path analysis plan ref 3062 100-P-011.	Swept path analysis	Tracking speeds have been added.	
19	<p>There is a requirement for both roundabout and link road swept paths to be provided at an appropriate forward design speed and in accordance with the advice contained within the Autodesk user guide / helpdesk. Speeds above 15kph are to be shown with the dynamics setting turned on to give a more realistic example of turning and other features of larger vehicles. It is acknowledged that for the movements along the link road, passing a stationary bus for example, this may not be at the full 60kph / 30mph design speed, however, it cannot be accepted that such movements will be performed at the 5mph base setting. We need to ensure that the bus stops and refuge islands within the proposed design are spaced appropriately for the required movements and speeds.</p>	Swept path analysis	Dynamic setting has been used. All forward movement speeds are greater than 15mph (24kph).	
20	In accordance with 3.28.5, for non-signal-controlled roundabouts, vehicle swept paths should be assessed using the largest vehicle anticipated to use each exit lane. – Please also reassess using a 12m Bus	Swept path analysis	Bus tracking has been added.	
21	Swept paths indicate that design vehicle does not maintain lane discipline on entry path to the roundabouts. Furthermore a 0.5m offset between vehicle body and kerbs are not maintained.	Swept path analysis	Tracking has been updated to reflect the comment.	
22	<p>A note included on plan ref 3062- 100-P-02 and 100-P-030 reads <i>“Proposed Retaining Structure subject to detail design (by others)”</i> however no information appears to have been submitted with the application. A response to this matter previously read Retaining structure construction and extent is subject to specialist design (by others). However although it is clear that acceptance of the retaining wall is intrinsic to the proposed development / link road design being satisfactory from a highways perspective. As such, further information is required in respect of the proposed structure for assessment by the Councils Structures team. Given the significant design, safety, inspection and maintenance considerations involved and the potential impact on highway users it is required that the technical approval procedures contained within DMRB CG 300 must be adhered to for all highway structures. The approval procedure is to be followed for the construction or alteration of any highway structure, whether to be adopted or not, with The Technical Approving Authority being the Highway Authority. For information, the definition of a highway structure can fall into one of two types, either:</p> <ul style="list-style-type: none"> Any structure or building built in, under, or over, the highway where the span dimension at any point is equal to, or exceeds 1.0m. This includes amongst others, bridges, footbridges, culverts, pipes, tunnels, chambers, cellars, shafts, manholes and storm water balancing tanks etc. or 	Retaining structure	Details of retaining structures to be provided by Queensberry.	

	<p>• Any structure or building built in - or within 3.66 metres of - the highway, which supports the highway, or ground above it and regardless of the retained height that if it were to fail would, in the view of the Highway Authority, endanger users of the highway. This includes amongst others, retaining walls, headwalls, basements and cellars etc.</p> <p>The definition of 'highway' used above includes the carriageway, footway and all verges</p> <p>Given that the structure will retain the proposed highway, proximity to the existing public highway and that if it were to fail would clearly endanger users, there is a need for the applicant to provide design details including a cross section of the wall for consideration by the structures team before determination of the application and subsequent technical approval through the Approval in principle (AIP) procedure.</p>			
23	Turning head to be added (Hermit Lane)	Road layout	See item 17	
24	Carriageway for the loop road (bus use) to be 6.75m	Road layout	Eastern arms of both roundabouts have been redesigned to increase carriageway width to 6.75m	
25	RSA1 response	General	RSA 1 designer's response has been completed	
26	Noise barriers to be added	Noise barriers	Noise barriers have been added as per received diagram.	
27	<p>1. Is the blue line a retaining wall?</p> <ul style="list-style-type: none"> · If not, there is no space for the road embankment gradient to the bridleway ramp particularly on the western side as it approaches Hermit Lane · If yes, Structures will need to agree it because they have previously agreed to an embankment. <p>2. The curve at the junction of the eastern side of Hermit lane appears really steep. This could be an issue if the embankment and inside corner is heavily vegetated which will block sight lines for users in both directions and be a particular risk if cyclists are descending at speed.</p> <p>3. There does not appear to be a separate walking/cycling gap from the eastern side to the crossing</p> <p>4. What are the ramp gradients? Mobility impaired compliance is a level platform 1.5m long every 0.90cm height gained.</p> <p>5. What surface type? Horseriders will be really unhappy with tarmac especially given gradients but Ian won't want flexipave on his adopted highway and coloured grip surface dressing is expensive to maintain</p> <p>6. The bridleway ramps look to be a generic (non-segregated) space so 4 metres is okay for me, but Active Travel England might not agree.</p>		<p>Bridleway/pedestrian/cyclist ramps layout and vertical design subject to 3D modelling. 5% max. longitudinal gradient will be used as a threshold vertical design. The comments from PROW officer have been picked up in the revised and submitted arrangement. The detailed points including gradients and surfacing can be accommodated satisfactorily and will be addressed at Section 38 detailed design stage.</p>	