

1) To what extent do you agree with our proposed option? Tend to agree

The Society welcomes in principle the Highways England proposals for a 2.9km bored tunnel for the A303 from just west of the Countess Roundabout to a point west of Normanton Down. This is a positive recognition of the importance of the World Heritage Site (WHS), a potentially deliverable means of significantly reducing the adverse impact of the A303 on the landscape round Stonehenge, and of providing a solution to the bottleneck caused by the existing road. As the scheme is designed in more detail, the Society will wish to see that there is minimal impact on scheduled monuments, the least possible new construction within the WHS, and that this solution to traffic within the WHS proves to be the least visible and audible from key monuments. We will also wish to see the results of archaeological evaluation work carried out in advance of some of the key areas on the surface where the proposed road will run, and we have a number of observations (below) about the impact of construction work on the Stonehenge landscape.

We are also aware, however, of Paragraph 110 of the Operational Guidelines for the Implementation of the World Heritage Convention, which states that 'Impact assessments for proposed interventions are essential for all World Heritage properties.' To make an adequate impact assessment it is necessary fully to understand the range of impacts, positive and negative, on the attributes that carry the outstanding universal value (OUV) of the site before a decision is made. A sound decision to proceed with either of the short-listed routes therefore needs to be based on a full understanding of the impacts of each option on the OUV of the property, including buried archaeology both on the route lines, and within the often extensive additional land that could be disturbed by temporary construction works and ecological mitigation measures.

We understand that archaeological evaluation is being undertaken, but until that work is complete and available for public scrutiny, together with realistic and affordable construction management plans, including precise details of the design, especially for the portals and their approach ramps, lighting, fencing, signage, and drainage, as well as ecological mitigation plans for each option, the evidence base to inform a sound and defensible decision to adopt a specific route, especially one which clearly will have some impact on the WHS, is seriously defective. When this information is available, heritage impact assessments of the options should be produced and published in accordance with *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (ICOMOS International, 2011), following the advice of the 2016 ICOMOS/UNESCO Advisory Mission (4.2.1, p25).

2) To what extent do you agree with our proposed location of the eastern portal? Tend to agree

The tunnel mouths, both to east and west, are very close to significant archaeological features in the World Heritage Site landscape. The tunnel length at present proposed is 200m less than the 3km length which the consultation document asserts is the most that can be constructed without ventilation shafts. A modest small extension of the tunnel's length, particularly at its western approach would give a little more breathing space to key monuments within the WHS.

We must, however, see the detailed proposals for the eastern tunnel portal and its screening. We must see well-reasoned evidence that the buried remains of the Avenue will be secure, and will wish to be able to gauge how Highways England will ensure there is no impact on the Stonehenge Avenue in the positioning and, importantly, during the construction of the eastern portal.

In any proposal to excavate a tunnel, it is the approaches that do the harm. Design drawings do not necessarily reveal the full extent of the permanent and temporary impacts of construction based on the reality of the large scale civil engineering, which can reach substantially beyond the line of the road itself. The fact that parts of this road, and the tunnel mouths themselves, where much of the activity of construction will be concentrated, are within the WHS means that the practical aspects of

the engineering works need to be considered at the outset and be included in the assessment. The results from the new evaluation trenches along the course of the proposed new road alignments west of the western tunnel portal will be of key interest here.

3) To what extent do you agree with our proposed location of the western portal? Tend to disagree
See our answer above to Q2. The tunnel mouths, both to east and west, are very close to significant archaeological features in the World Heritage Site landscape. The tunnel length at present proposed is 200m less than the 3km length which the consultation document asserts is the longest that can be constructed without ventilation shafts. A modest extension of the tunnel's length at the western approach in particular would enable the new road alignment to give a wider berth to the Normanton group of barrows at the western end.

The prospect of boring beneath the Normanton barrow group is on the face of it alarming. This is arguably the most famous barrow group in the country and unintended damage through fracturing of the chalk bedrock could destroy the integrity of intact deposits. There could also be a shaft burial amongst the mounds, which tunnel boring would disturb. The reasons for placing the western portal in this sensitive location have not been explained.

The portal in the location proposed will also be roughly on the line of the mid-winter sunset as viewed from Stonehenge, as is pointed out by the Royal Astronomical Society. Even if the lighting of the portal and the headlights of cars are not directly visible from Stonehenge, they will in all probability create a significant glow, thus adversely impacting upon the desired quality of darkness at the horizon. As that sightline is one of the major attributes of the WHS's central monument, it would seem to be counter-productive to align the road so nearly on it, even though at the depth planned for the tunnel portal, this will not be visible from Stonehenge itself.

All in all, therefore, it might seem less risky to place the portal further to the north west (west of Normanton Gorse and south of the existing A303) thus avoiding the Normanton Down Group altogether. The road could still utilise lower ground south of Longbarrow Crossroads, and the existing A303 could still be closed, albeit that the new route would be closer to that barrow group and the extant scheduled long barrow on Wilsford Down. The current proposal favours the Winterbourne Stoke Longbarrow Group at the expense of (and potential risk to) the Normanton Down Group. A fuller Impact Assessment examining the siting of the western tunnel mouth, to seek an optimised route for the A303, is required.

We therefore wish to see the detailed proposals for the western portal and any proposed screening. We wish to be able to gauge how Highways England will ensure there is no impact on the Normanton group of barrows. We wish better also to understand whether a bored tunnel could cause a threat or damage to Bush Barrow, the most celebrated round barrow in the region.

4) For the Winterbourne Stoke by-pass, which is the best route?

The northern route has had archaeological evaluation work carried out, and in consequence can be more easily planned for in detail. If the western tunnel portal can be moved marginally north and westwards, this make it perhaps easier to link with a northern by-pass for Winterbourne Stoke.

5) What are the most important issues for you as we develop our proposals for the A303/A345 Countess junction?

We have no substantive issues over the proposals for the Countess junction

6) What are the most important issues for you as we develop our proposals for the A303/A360 Longbarrow junction?

The most important issues are the impact that such a junction, whether on the northern or southern route round Winterbourne Stoke, will have on the landscape, both during hours of daylight and darkness. The introduction of a significantly lit junction into the landscape at this point will be a substantial distraction to the WHS landscape. We also understand that the site of the proposed junction, wherever it will be placed on the A360 or on the A303, may be the chosen location for much of the necessary plant, storage, and equipment compounds for the overall roads construction. If so, it will be very important to ensure that the full area of the site to be affected is properly evaluated for its archaeological and ecological evidence as part of the Heritage Impact Assessment.

7) Do you have any other comments?

In 2006, responding to the then published proposals for the A303 in the Stonehenge area, the Society strongly endorsed the principle of a bored tunnel, expressing the view that this was far preferable to a cut-and-cover version, would remove the negative impacts of surface traffic and its routes within the WHS, and would go a long way towards restoring the completeness of the historical landscape within which Stonehenge stands. We also urged moving rapidly towards implementation. The view we have stated above is consistent with this stance, and welcomes the fact that a longer tunnel is now being actively considered.

There could be permanent direct and indirect impacts on designated and undesignated heritage assets as a result of the construction process. Constructing the boring machines, removing the chalk and transporting it away, shipping in the reinforced concrete to line the tunnel will need a significant land take. There is no indication of where any of that might occur, or its scale. Details of construction methods and of enabling works, whether temporary or permanent, must also be considered, and be subject to the promised consultation later in 2017 and prior to the submission of the Development Consent Order. Such proposals must also reveal what is to be done with the bed of the existing A303.

The presence of a major dual carriageway road on the character of the landscape through which it passes is felt over a very wide area, far beyond its zone of visibility. Such roads, where they are on the surface, cannot be crossed on foot (as the A303 can at present); they need underpasses or overbridges. Noise is a key impact, but those who will be encouraged to walk through the landscape around Stonehenge will always be conscious of its proximity and its presence in the landscape. Highways England need to take every care to minimise the impact of the finished road on the landscape they are seeking to protect through the construction of this tunnel and the approaches to it.

8) How did you hear about this consultation?

9) Do you have any feedback on this consultation?

10) Equality/diversity survey