Mike Goddard, Highways England, Temple Quay House, 2 The Square, Temple Quay, Bristol. BS1 6HA Cotswolds
Conservation Board

31st May 2019

Dear Mike,

A417 Option 30: A436 Junction Options

Thank you for drawing up our suggested modification of the A436 junction (though it seems not to have incorporated our suggested adjustments to horizontal alignment of the A417), and also for your alternative idea closer to Emma's Grove, which would significantly shorten the route through the junction. This has distinct problems but comparing these two locations and taking into account our suggestions for the link to Birdlip via the Cowley Junction (see separate letter), it has stimulated us to look again, and we think there are significant improvements to be made. These are illustrated by the attached drawings.

Please note that all the comments that follow are relative to the basic position that any major junction in this location has a severe landscape impact – the point being that other locations are worse. As indicated previously we have serious concerns over the scale and impact of any retained cuttings in Option 30.

The options we show on the comparative plans overlaid on your Locations 2 and 3. They show the same basic adjustment of the A417 alignment that we originally proposed (now more accurately shown as retaining same radius curvature of c.930m) with a simplified junction with indicative landscaping that, with some variations, is essentially applied in a similar manner for both locations.

The two versions we have shown are:

- Location 3 slightly further east but with slip roads (as defined on your plans) extending well into the section currently proposed as retained cutting.
- Location 2 slightly further north, based on slip roads ending/beginning at the eastern end of proposed retained cutting.

To explain our thinking in more detail, we list below the key characteristics entailed in our suggested modifications, which are broadly common to locations 2 and 3, the key difference being whether or not the retained cutting would have to be widened to accommodate the additional slip roads, exacerbating its landscape impact. We also outline the main benefits as we see them of these further refinements of the layouts you have developed.

Key characteristics

- Junction location tucked into re-entrant angle of Ullen Wood making best use of topography (spur hill dropping towards re-entrant angle in Ullen Wood).
- Main carriageway curvature same (c.930m) at junction, and slightly relaxed through retained cutting (1000-1300m).
- Junction bridge slightly further from current A417 than Location 3 (i.e. much closer then location 2).
- A436 overbridge similar locations at grade or below on north end; cutting at south end.
- No Birdlip link road.
- Same radii and slightly longer length for slip road loops as Locations 3 and 4; freer radii for slip roads not doubling back.
- Alignment of slip road loops and lack of Birdlip link obviates need for dumbbell roundabouts.

Conserving, enhancing, understanding and enjoying the Cotswolds Area of Outstanding Natural Beauty

- Single roundabout for access to Leckhampton Crickley Hill etc., somewhat further south and
 east to enable it to be built at higher level than present A463 thereby reducing depth of cutting
 south of the western end of Ullen Wood.
- Cutting slopes smoothly varied from rock face to variable slopes similar to topography.

Benefits:

- 1. Shorter than CCBs original suggestion (similar to location 3) while still within alignment limits.
- 2. Reduced horizontal radii for alignment through proposed retained cutting.
- 3. Better fit with topography (spur hill dropping towards re-entrant angle in Ullen Wood)
 - a. avoiding need for extra retaining wall
 - b. reduces earthworks
 - c. smaller landscape footprint
 - d. less surplus spoil
- 4. No Birdlip link for B4070 means no need for dumbbell roundabouts
 - a. less cost
 - b. freer flowing traffic
 - c. reduced land take and landscape impact
 - d. more ability to align slip roads to fit landscape
- 5. No Birdlip link means no separate crossing for Gloucestershire Way.
- 6. Revised location (as per CCB adjustments for location 2 or location 3) would significantly simplify private access roads and Gloucestershire Way, which would share an accommodation bridge with the access to the Kennels, retaining it on its present course and avoiding multiple crossings of link roads, slip roads and trunk road carriageways.
- 7. Adjusted location and suggested heightened alignment of roundabout (if required) for Leckhampton Road etc.
 - a. facilitates construction works to achieve this without encroaching into access to country park
 - b. improves gradient and therefore traffic flow
 - c. reduces landscape impact of cutting round Ullen Wood
 - d. avoids need for extra retaining wall
 - e. reduces earthworks and surplus material to be disposed of

As noted above, the compactness of the junction and length of route through involve pros and cons in relation to balancing traffic flow and landscape implications; similarly, the proximity to Ullen Wood needs to balance ecology with landscape fit and consequential construction issues. In both cases further detailed consideration is needed.

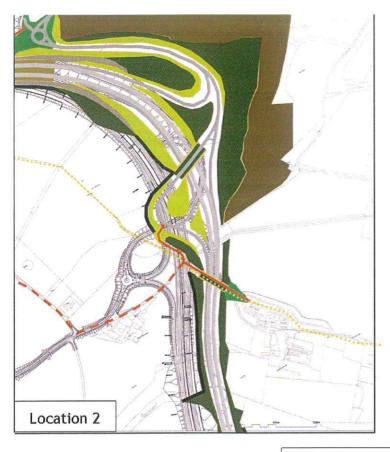
We have also revisited the suggested South Hill option. This is not overlaid on your drawing but relates to the same adjusted main horizontal alignment for the A417 that is incorporated into our suggestions for locations 2 and 3. In this case we think a dumb-bell arrangement and separate footbridge for the Gloucestershire Way would probably be preferable. This version avoids joining the A436 at a junction opposite the Star College, with traffic then more likely to access Cheltenham via the A435. This has benefits in gradient and given appropriate cut-and-fill and landscaping, together with a green bridge sufficient for tree and shrub planting, we believe this would reduce concerns about views from the north, including Leckhampton Hill. Once again there is clearly scope for further refinements.

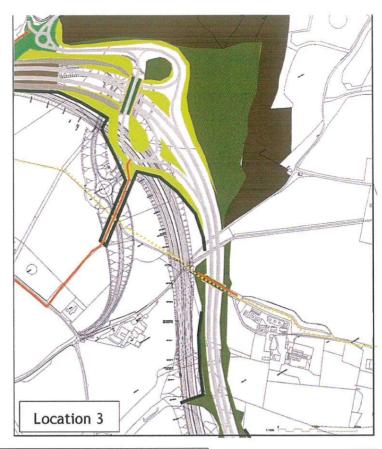
I trust these suggestions are helpful.

Martin Lane

Yours sincerel

Director .





COTSWOLDS AONB:

A417 LANDSCAPE ENHANCEMENT AREA COWLEY TO CRICKLEY HILL

2 A436 JUNCTION ALTERNATIVES

ABOVE:

LOCATIONS 2 AND 3 COMPARATIVE LAYOUTS (CCB ALTERNATIVE LAYOUTS OVERLAID ON HE MOTTS PLANS)

BELOW:

SOUTH HILL APPROACH (OVERLAID ON DEFRA MAGIC MAP)

NOTES

Retained cutting/ tunnel

Location 2: Ends of West and East Bound Slip Roads Outside Main retained cutting/ Tunnel

Location 3: Ends of West and East Bound Slip Roads c. Half way along Main retained

South Hill: Existing Ullen Wood and Woodland Trust

