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6.4 Environmental Assessment  
Appendix 7.5 Visual Assessment  
Tables

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**6.4 Environmental Assessment Appendix 7.5 Visual  
Assessment Tables**

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# 1 Introduction

## 1.1 Visual assessment

- 1.1.1 The visual assessment records the degree of visual change (magnitude) as a result of the scheme that would be experienced by people. It does this by combining the sensitivity of the receptor group with the likely magnitude of change they would experience to determine the significance of effect of the scheme on each receptor
- 1.1.2 The following assessment addresses only the visual receptors that would not experience significant visual effects as a result of both the construction and operational phases (year 1 and 15) of the scheme. Significant effects are reported in ES Chapter 7 Landscape and Visual Effects (Document Reference 6.2), and non-significant effects are reported below.
- 1.1.3 This approach allows the main chapter to be proportionate and focus on reporting only the significant effects.

# 2 Assessment of visual effects

## 2.1 Community receptors

### Little Witcombe and Great Witcombe

**Table 2-1 Assessment of visual effects on the communities of Little Witcombe and Great Witcombe**

<b>Receptor: The communities at Little Witcombe and Great Witcombe</b>
<p><b>Representative viewpoints:</b></p> <p>This receptor is represented by the following viewpoints listed, refer to ES Figure 7.1 Visibility (ZTV no vehicles) and Viewpoints (Document Reference 6.3) and ES Figure 7.2 Visibility (ZTV with vehicles) and Viewpoints (Document Reference 6.3) for its location:</p> <ul style="list-style-type: none"> <li>• VP3 Droy's Court;</li> <li>• VP4 A46 Painswick Road;</li> <li>• VP5 Little Wycombe PRoW; and</li> <li>• VP6 Old Coach Road overbridge A417.</li> </ul>
<p><b>Baseline view</b></p> <p>These views are representative of communities in the vale, particularly Little Witcombe and Great Witcombe. Views look across arable fields bounded by hedgerow and mature field trees (VP3). In the distance (VP4), views can be gained to the well wooded high ridge, which forms a backdrop to the vale where Crickley Hill, Barrow Wake and the Peak are notable features along the skyline, particularly Barrow Wake car park which is clearly visible due to sunlight glinting off car windows. The foreground is dominated by large arable fields which are bounded by hedgerow. Hedgerow trees and tree clumps give the impression of a well wooded vale and prevent more panoramic views from being gained. They also limit open visibility to a relatively few locations (VP6). The A417 is also visible in the vale to the north but obscured by roadside vegetation as it climbs the escarpment (VP5).</p>
<p><b>Nature of receptors (sensitivity)</b></p> <p>The local communities of Little Witcombe and Great Witcombe are considered not to be able to accommodate visual change because views contribute to the landscape setting enjoyed by residents. The views are not documented as important in national or local documents but nonetheless valued at by the local population.</p> <p>Overall, and combining judgements on susceptibility with value, visual receptors at this location are considered to have <b>medium sensitivity</b>.</p>

## Receptor: The communities at Little Witcombe and Great Witcombe

### Construction phase

#### Nature of effects (magnitude)

The construction of the newly aligned A417, cutting and embankments would be partially visible from within the vale in relatively close views but at an oblique angle partially screened by intervening vegetation. The construction activities including the construction compound, haul road, movement of vehicles and the removal of the existing vegetation would be seen on the escarpment and its foot slopes from these small communities, creating clearly perceptible change to the baseline conditions, and resulting in a medium visual change. Views of work at Barrow Wake would be discernible from this location with changes coming about from the rection of the stone walling on the edge of the car park and the realigned B4070 at Barrow Wake. Woodland planting on the embankments would be difficult to see from this distance due to the small size of planting stock. Despite the scheme being seen in combination with the existing and still operational A417, from this distance the scale of change would be limited, affecting only part of a much wider series of views. As a result of the limited locations (or small area) where views could be gained by a small number of people. Night-time working would take place, requiring high intensity lighting which would be highly visible and spill out into this otherwise dark landscape, causing an obvious change to the communities.

The duration of effect on views would be the construction phase which would be for the duration of the construction phase, 42 months, and would be partially reversible (because construction activities would be removed, however, felled trees, excavated escarpment and disturbed historic field patterns (ridge and furrow) or landscape features (historic tracks) would not be able to be fully restored).

The magnitude of effect experienced by the communities of Little Witcombe and Greater Witcombe would be **minor** and **adverse**.

#### Significance of effect

For the receptor at this location, parts of the construction works are predicted to result in a **slight, adverse** and **not significant effect**, due to a minor magnitude of effect on views affecting relatively few medium sensitivity receptors.

### Operational phase (year 1 - opening year)

#### Nature of effects (magnitude)

At year 1, the recently completed road would be more visible than the baseline situation. Proposed mitigation planting would have not yet fully established and would not be visible from this distance.

Visual change caused by the new road infrastructure in the early years would result in a medium visual change at year 1. The scheme would not be clearly noticeable from these settlements because views would be partially obscured by intervening field boundary vegetation and small woodland blocks. Views of the cut slopes would be visible on the escarpment from this distance and are likely to be prominent, with similar views of the changes to Barrow Wake with the reduced presence of parked cars. It may also be possible to see vehicles travelling on the realigned B4070 between Barrow Wake and Birdlip for a short section of this new route. Near Little Witcombe and Great Witcombe, night-time effects of vehicle lights would be of a greater extent than the baseline, with car lights being visible travelling along the open and elevated 8% section of the scheme and with filtered views of vehicles navigating the roundabout at Barrow Wake, on the realigned B4070.

Due to the presence of existing built form and intervening vegetation, it would only be possible to gain this type of view from a few locations on the edge of the settlements, affecting a relatively small number of people, over a small area.

The duration of effect on views over the operational phase would be **between 2-15 years** and would be not reversible, resulting in an overall **minor** and **adverse magnitude of effect**.

#### Significance of effect

Changes to views, experienced by the communities of Little and Great Witcombe are predicted to result in a **slight, adverse** and **not significant effect** at this location due to a minor magnitude of effect (medium change) to views affecting few medium sensitivity receptors.

### Operational phase (year 15 – design year)

**Receptor: The communities at Little Witcombe and Great Witcombe****Nature of effects (magnitude)**

The extent of visual change at year 15 would remain as a small visual change as the roadside mitigation planting continued to mature, and road structures are partially screened, returning to a similar state as the baseline condition. Night-time effects of vehicle lights would be of a similar extent and nature to the baseline, with car lights being visible but with little spill into the wider landscape, including at Barrow Wake. As a result of the limited locations (small area) where views could be gained by a small number of people, with the duration of effect on views over the operational phase being long-term (+15 years) and not reversible. The overall magnitude of effect would be **minor**.

**Significance of effect**

Only a very small part of the scheme would be discernible from this distance to form a barely noticeable feature or element of the view, resulting in a **slight, adverse and not significant effect**.

**Table 2-2 Little Witcombe and Great Witcombe summary of effects**

<b>Sensitivity</b>	Very high	High	<b>Medium</b>	Low	Negligible
<b>Construction phase</b>					
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral
<b>Operational phase (year 1 – opening year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	<b>Minor</b>	Negligible	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral
<b>Operational phase (year 15 – design year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	<b>Minor</b>	Negligible	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral

**Birdlip****Table 2-3 Assessment of visual effects on the community of Birdlip**

<b>Receptor: <i>community of Birdlip</i></b>
<p><b>Representative viewpoints:</b></p> <p>This receptor is represented by the following viewpoints listed, refer to ES Figure 7.1 Visibility (ZTV no vehicles) and Viewpoints (Document Reference 6.3) and ES Figure 7.2 Visibility (ZTV with vehicles) and Viewpoints (Document Reference 6.3) for its location:</p> <ul style="list-style-type: none"> <li>VP39 Birdlip.</li> </ul>
<p><b>Baseline view</b></p> <p>Public viewpoints within Birdlip are limited to roadsides, including along the B4070, and from a small number of PRoW. Views out of the settlement to the north are restricted by buildings along the road network. East of Birdlip school, at Hawcote Hill (VP39), views can be gained where gaps in the field boundary vegetation are present. From here, a partially open view can be gained across an undulating agricultural field before being stopped short by the existing A417. The existing road at this location is on embankments and flanked by roadside vegetation, which forms the local skyline. Passing traffic makes the road more perceptible in the near view. To the north, green dual carriageway signs are visible through roadside trees. Nettleton Bottom is barely visible to the east. A pylon line is visible beyond the skyline and a wood pole line crosses the view in the foreground.</p>
<p><b>Nature of receptors (sensitivity)</b></p> <p>The local communities of Hawcote Hill on the eastern edge of Birdlip are considered not to be able to accommodate visual change because views contribute to the landscape setting enjoyed by residents. The views are not documented as important in national or local documents but are nonetheless valued by the local population.</p> <p>Overall, and combining judgements on susceptibility with value, visual receptors at this location are considered to have <b>medium sensitivity</b>.</p>

<b>Receptor: <i>community of Birdlip</i></b>
Construction phase
<p><b>Nature of effects (magnitude)</b></p> <p>Construction works to repurpose the existing A417 (part of the de-trunking) within the wold would be partially visible in relatively close views from the community at Hawcote Hill, Birdlip, but at an oblique angle partially screened by intervening vegetation. More distant views would be gained from the PRow network on the northern edge of Brimpsfield and rural settlements near Blacklains Farm. Construction activities and movement of vehicles would only be seen from the small communities, creating a clearly perceptible change to the baseline conditions, and resulting in a small visual change in views. Night-time working would take place, requiring high intensity lighting which would be highly visible and spill out into this otherwise dark landscape, causing an obvious change to this community. Due to the presence of existing built form and intervening vegetation, it would only be possible to gain this type of view from a few locations in the settlements, affecting a relatively small number of people over a small area. The duration of effect on views would be the construction phase which would be 42 months and would be reversible (because construction activities would be removed, and disturbed areas would be restored).</p> <p>The overall effect of the construction work on these local communities is considered to be a <b>minor</b> and <b>adverse</b> magnitude of effect due to the small scale of change over a small geographical extent for a relatively short period, despite the high susceptibility of the receptor.</p>
<p><b>Significance of effect</b></p> <p>For this receptor group, the construction activities relating to this small part of the scheme are predicted to result in a <b>slight, adverse and not significant effect</b>, resulting in a small change in a relatively lower value view for a relatively short duration affecting a few medium sensitivity receptors.</p>
Operational phase (year 1 - opening year)
<p><b>Nature of effects (magnitude)</b></p> <p>During the operational phase at year 1, the community of Birdlip would experience a very minor visual change with the removal of fast-moving vehicles in near, elevated views. At night there would be reduced light pollution from the Air Balloon Way. At year 1, the proposed mitigation planting with tree guards would be visible. It is predicted that effects during the opening year would only be experienced by a relatively small number of people over a small area. The duration of effect on views over the operational phase would be <b>between</b> 2-15 years at the opening year and would be not reversible. Combining judgements on scale, geographical extent, duration and reversibility, the community of Birdlip would experience a <b>negligible</b> and <b>beneficial magnitude of effect</b>.</p>
<p><b>Significance of effect</b></p> <p>At year 1 of the operational phase, the medium sensitivity receptors would experience a minor magnitude of effect to local views. This would result in a <b>neutral</b> and <b>not significant effect</b>, as only a very small number of people would experience a small level of visual change to only a small part of the much wider view.</p> <p>The significance of effect would not be slight given the imperceptible scale of change over a small geographical extent, affecting a medium sensitivity receptor group.</p>
Operational phase (year 15 – design year)
<p><b>Nature of effects (magnitude)</b></p> <p>During the operational phase at year 15, the community of Birdlip would experience a very minor visual change with the removal of fast-moving vehicles in near, elevated views. At night there would be reduced light pollution from the Air Balloon Way. At year 15, the proposed mitigation tree planting it would help strengthen the existing wooded skyline. Predicted effects during the design year would only be experienced by a relatively small number of people over a small area. The duration of effect on views over the operational phase would be year 15 and beyond and would be not reversible. Combining judgements on scale, geographical extent, duration and reversibility, the community of Birdlip would experience a <b>negligible</b> and <b>beneficial magnitude of effect</b>.</p>



**Receptor: *community of Birdlip*****Significance of effect**

At year 15 of the operational phase, the medium sensitivity receptors would experience an imperceptible magnitude of effect to local views. This would result in a **neutral** and **not significant effect** as only a very small number of people would experience a small level of visual change to only a small part of the much wider view.

The significance of effect would not be slight given the imperceptible scale of change over a small geographical extent, affecting a medium sensitivity receptor group.

**Table 2-4 Birdlip summary of effects**

<b>Sensitivity</b>	Very high	High	<b>Medium</b>	Low	Negligible
<b>Construction phase</b>					
<b>Magnitude of effect</b>	Major	Moderate	<b>Minor</b>	Negligible	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral
<b>Operational phase (year 1 – opening year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	Minor	<b>Negligible</b>	No change
<b>Nature of effect</b>	Adverse	<b>Beneficial</b>	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	Slight	<b>Neutral</b>
<b>Operational phase (year 15 – design year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	Minor	<b>Negligible</b>	No change
<b>Nature of effect</b>	Adverse	<b>Beneficial</b>	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	Slight	<b>Neutral</b>

**Cold Slad Lane****Table 2-5 Assessment of visual effects on the community on Cold Slad Lane**

<b>Receptor: Community at Cold Slad Lane</b> (Includes recreational users of Cold Slad Lane and road users)
<p><b>Representative viewpoints:</b></p> <p>This receptor is represented by the following viewpoints listed, refer to ES Figure 7.1 Visibility (ZTV no vehicles) and Viewpoints (Document Reference 6.3) and ES Figure 7.2 Visibility (ZTV with vehicles) and Viewpoints (Document Reference 6.3) for its location:</p> <ul style="list-style-type: none"> <li>• VP13 Cold Slad Lane junction with A417; and</li> <li>• VP14 Cold Slad Lane.</li> </ul>
<p><b>Baseline view</b></p> <p>Views to the existing A417 along Cold Slad lane are generally obscured by tree cover until it approaches the entrance of Cold Slad lane, facing east to the A417. Trees bounding the road shorten the view with the road corridor and traffic dominating the view in the foreground.</p>
<p><b>Nature of receptors (sensitivity)</b></p> <p>The local community on Cold Slad Lane is considered to have a limited ability to accommodate visual change because it currently experiences views of the existing A417, which are valued by the local population.</p> <p>Overall, and combining judgements on susceptibility with value, visual receptors at this location are assessed as being of <b>medium sensitivity</b>.</p>
<b>Construction phase</b>

<b>Receptor: Community at Cold Slad Lane</b> (Includes recreational users of Cold Slad Lane and road users)
<p><b>Nature of effects (magnitude)</b></p> <p>Construction activities of the scheme and the existing A417 would cause a small visual change to views as experienced by the community of Cold Slad Lane. Night-time working would be the greatest change in views from this location, apart from at the junction of Cold Slad Lane and the scheme, where there would be an obvious change in direct views. During construction, there would be temporary closures of the lane, which would limit the extent of change experienced by the community. The works would affect a small community over a small area.</p> <p>The duration of effect on views would be the construction phase of 42 months and would be partially reversible (because construction activities would be removed, however, felled trees and the alteration of the alignment of Cold Slad Lane would not be able to be fully restored).</p> <p>The scheme is therefore predicted to result in a <b>minor</b> and <b>adverse magnitude of effect</b> for visual receptors at this location.</p>
<p><b>Significance of effect</b></p> <p>Despite construction activity affecting receptors of medium sensitivity, the works are predicted to cause a minor magnitude of effect to local views, resulting in a <b>slight, adverse</b> and <b>not significant effect</b>.</p>
Operational phase (year 1 - opening year)
<p><b>Nature of effects (magnitude)</b></p> <p>At year 1, the community of Cold Slad Lane would experience a very minor visual change as result of the operational scheme, due to its location along the minor road away from the scheme, apart from at the junction of Cold Slad Lane and the scheme, where there would be an obvious change in direct views. The operational road would affect a small community (few people) over a small area. The duration of effect on views would be the operation phase which would be between 2-15 years and would be not reversible.</p> <p>Overall, this would result in only a very small part of the scheme that would be discernible, and a <b>negligible, adverse</b> magnitude of effect.</p>
<p><b>Significance of effect</b></p> <p>At year 1 of the operational phase, the medium sensitivity receptors would experience a negligible magnitude of effect to local views. This would result in a <b>negligible significance of effect</b> as only a very small number of people would experience an imperceptible level of visual change to only a small part of the much wider view.</p> <p>The significance of effect would not be slight given the imperceptible scale of change over a small geographical extent, affecting a medium sensitivity receptor group.</p>
Operational phase (year 15 – design year)
<p><b>Nature of effects (magnitude)</b></p> <p>At year 15, the majority of the community of Cold Slad Lane would experience a very minor visual change as result of the operational scheme, due to its location along the minor road away from the scheme, apart from at the junction of Cold Slad Lane and the scheme, where there would be an obvious change in direct views. The operational road would affect a small community (few people) over a small area. The duration of effect on views would be the operation phase which would be for more than 15 years and would be not reversible.</p> <p>Overall, this would result in only a very small part of the scheme that would be discernible, and a <b>negligible neutral magnitude of effect</b>.</p>
<p><b>Significance of effect</b></p> <p>At year 15 of the operational phase, the medium sensitivity receptors would experience a negligible magnitude of effect to local views. This would result in a <b>neutral significance of effect</b> as only a very</p>

**Receptor: Community at Cold Slad Lane**

(Includes recreational users of Cold Slad Lane and road users)

small number of people would experience an imperceptible level of visual change to only a small part of the much wider view.

The significance of effect would not be slight given the imperceptible scale of change over a small geographical extent, affecting a medium sensitivity receptor group.

Table 2-6 Cold Slad Lane summary of effects

Susceptibility	High	Medium	Low		
Value	National	Regional/District	Community		
Sensitivity	Very high	High	Medium	Low	Negligible
Construction phase					
Size/scale of change	Large	Medium	Small	Imperceptible	
Geographical extent	Large	Medium	Small		
Duration	Long	Medium	Short		
Reversibility	Not reversible	Partially reversible	Reversible		
Magnitude of effect	Major	Moderate	Minor	Negligible	No change
Nature of effect	Adverse	Beneficial	Neutral		
Significance of effect	Very large	Large	Moderate	Slight	Neutral
Operational phase (year 1 – opening year)					
Size/scale of change	Large	Medium	Small	Imperceptible	
Geographical extent	Large	Medium	Small		
Duration	Long	Medium	Short		
Reversibility	Not reversible	Partially reversible	Reversible		
Magnitude of effect	Major	Moderate	Minor	Negligible	No change
Nature of effect	Adverse	Beneficial	Neutral		
Significance of effect	Very large	Large	Moderate	Slight	Neutral
Operational phase (year 15 – design year)					
Size/scale of change	Large	Medium	Small	Imperceptible	
Geographical extent	Large	Medium	Small		
Duration	Long	Medium	Short		
Reversibility	Not reversible	Partially reversible	Reversible		
Magnitude of effect	Major	Moderate	Minor	Negligible	No change
Nature of effect	Adverse	Beneficial	Neutral		
Significance of effect	Very large	Large	Moderate	Slight	Neutral

## 2.2 Transport receptors

### Motorists on the A417, A436 and B4070

**Table 2-7 Visual assessment – A417, A436 and B4070**

<b>Receptor: A417, A436 and B4070 road users</b>
<p><b>Representative viewpoints:</b></p> <p>This receptor is represented by the following viewpoints listed, refer to ES Figure 7.1 Visibility (ZTV no vehicles) and Viewpoints (Document Reference 6.3) and ES Figure 7.2 Visibility (ZTV with vehicles) and Viewpoints (Document Reference 6.3) for its location:</p> <ul style="list-style-type: none"> <li>• VP6 Old Coach Road overbridge A417;</li> <li>• VP13 Cold Slad Lane junction with A417;</li> <li>• VP23 Gloucestershire Way on A417 at Air Balloon;</li> <li>• VP41 Golden Heart Inn; and</li> <li>• VP46 Bridleway west of Elkstone.</li> </ul>
<p><b>Baseline view</b></p> <p>The views are representative of users of the existing A417 between the Brockworth bypass (overbridge at Benthams) and Cowley roundabout, motorists on the A436 between the Ullenwood junction and Seven Springs, and the B4070 between the current A417 and Birdlip.</p> <p>In the low-lying vale (VP6), roadside trees and vegetation channel the views along the road network and obscure views out across the vale. Tree cover also obscures views of the A417 as it ascends the escarpment (VP13). The land rises in the distance with views of Crickley Hill, Barrow Wake and the Peak along the skyline. The slopes and tops of the ridge are heavily wooded. As the user travels east and ascends the escarpment, woodland encloses the view, with the road network the focus in the mid to foreground and a slot view of the wooded skyline beyond.</p> <p>In the vicinity of the Ullenwood junction, the A417 road corridor continues to dominate the view (VP23). The Air Balloon public house is the focus of the view beyond the road and traffic. Wider views to the west are screened by landform and vegetation. Traveling north, there are glimpsed views of Crickley Hill.</p> <p>As the user travels south in the vicinity of the Golden Heart Inn (VP41), views across the wold are foreshortened by mature trees at Birdlip quarry. There are glimpsed views of arable and pastoral fields through gaps in hedgerows and trees bounding the roadside. Beyond Cowley roundabout, there are open views north with hedgerows flanking either side of the road corridor. There is a slot view along the A417 road corridor and cutting slopes to a wooded skyline. The land rises to north across undulating large-scale arable fields with drystone wall boundaries and little tree cover (VP46). Highgate Farm and another residential property are visible on the skyline in the middle distance, with electricity poles visible from east to west.</p>
<p><b>Nature of receptors (sensitivity)</b></p> <p>Motorists travelling on the A417, A436 and B4070 are considered to have some ability to accommodate visual change because their attention is likely to be focussed on the road as they travel along the network at speed. Their views are valued by the local population.</p> <p>Overall, and combining judgements on susceptibility with value, visual receptors at this location are assessed as being of <b>negligible sensitivity</b>.</p>
<b>Construction phase</b>
<p><b>Nature of effects (magnitude)</b></p> <p>Construction activities of the scheme and the existing A417 would become dominant and cause a large scale of change in near views. Traffic management on all routes would cause changes to the baseline situation, particularly at Shab Hill junction and at Ullenwood and Cowley junctions. Construction activities associated with the offline section would not be readily apparent to motorists on the existing network until it nears completion. Building the online section would cause a large visual change as the road widening would take place while the existing road remains in operation.</p>

### Receptor: A417, A436 and B4070 road users

Obvious changes would be the removal of woodland along southern boundary of the existing road, movement of construction traffic and personnel, earthworks activity to create the embankments and excavate the cutting through the escarpment and movements to create numerous drainage basins and cutting slopes to the A436 and the realignment of Ullenwood junction. Crane activity involved in the erection of the Cotswold Way and Gloucestershire Way crossings, and Stockwell and Cowley overbridges would be visually prominent for motorists appearing at close proximity.

At times, the construction activity would be perceived by motorists on the main road network across the whole scheme, affecting a large number of people, over a medium area.

The duration of effect on views would be for the whole construction phase of 42 months and would be partially reversible (because construction activities would be removed, however, felled trees and large-scale excavation and earthworks would not be able to be fully restored).

The scheme is therefore predicted to result in a **minor and adverse** magnitude of effect for motorists using the A417, A436 and B4070 within the study area.

#### Significance of effect

For the motorists on the road main road network within the study area, the construction works are predicted to result in a **slight, adverse and not significant** effect.

### Operational phase (year 1 - opening year)

#### Nature of effects (magnitude)

At year 1, motorists using the A417, A436 and B4070 would experience a medium visual change as a result of the recently completed scheme. On the A417, the new alignment from Cowley junction would change from a surface route with intermitted views out across the surrounding landscape to enclosed views along the road corridor, with new overbridges at Stockwell and Cowley, and the Gloucestershire Way and Cotswold Way crossings. The scheme along the southern section would have high landscape embankments on both sides of the carriageway. The inner embankment slopes would be exposed rock, left bare from soil or vegetation, and would appear bright yellow at year 1, before the rock weathers and turns grey. This would continue up to Shab Hill where, for a short section, glimpsed views would be gained to the west before users descend again into cutting. The depth of the cutting (15m) and exposed rock faces would be an obvious change for motorists on the A417, compared to the baseline situation. The planted Gloucestershire Way crossing and corten finished Cotswold Way crossing would be prominent features and a focal point for motorists as they travel along this section of the scheme. Travelling west along the widened section of the scheme through the escarpment, views would open out across the foot slopes of the escarpment and the vale, with distant views over to Gloucester.

Travelling on the A436, changes to views would only become apparent as motorists approached the Ullenwood junction and the junction to Leckhampton Hill Road. Here the new road roundabout would provide the opportunity to gain channelled views through the cut in the escarpment via the realigned A436 on the approach to Shab Hill junction. The drainage basin would be visible to the north of the roundabout with a short section of the Leckhampton Hill Road appearing on an adjusted alignment.

From Birdlip, the B4070 follows the existing alignment to the junction to Barrow Wake. At this point the motorists' views would change as the new alignment follows the old A417 route towards Barrow Wake. Motorists would be able to gain glimpsed views out over the escarpment to the vale below. At the underpass, the realigned B4070 would connect into the access track (now upgraded) to Shab Hill, before deviating east to connect into Shab Hill junction and the A417.

The geographical extent for each road would vary, with the A436 and B4070 affecting a relatively short section of the route compared to the A417, which would affect a large number of people over a relatively longer section, over a medium area.

The duration of effect on views over the operational phase would be between 2-15 years and would be not reversible.

Road users on the main road network within the study area would experience a **minor and adverse** magnitude of effect.

#### Significance of effect

### Receptor: A417, A436 and B4070 road users

Combining the road users' low sensitivity with moderate magnitude of effect, they would experience a **slight, adverse and not significant effect**. Road users could expect to experience some visual disruption as they travel on the road network.

The significance of effect would not be neutral at this stage due to the extent of changes to views along the scheme, particularly along the offline section between Ullenwood junction and Cowley junction as this would be a new section of road.

### Operational phase (year 15 – design year)

#### Nature of effects (magnitude)

At year 15, the level of change would remain the same due to the specific nature of the new road alignment. However, proposed reinstatement planting and mitigation planting would now have matured, screening views along the western extent of the scheme at Crickley Hill, enclosing open views that were experienced at year 1. Vegetation across the scheme would have established, softening the engineered slopes and structures. This would be most noticeable within the cutting and the sections of slopes separating the proposed A417 and A436, north-east of Emma's Grove. The Cotswold Way and Gloucestershire Way crossings would remain visible, acting as local focal points for motorists. Calcareous grassland would have established along the road verges and slopes, creating attractive bloom in spring and summer. Overall, there would be a small visual change at year 15.

The geographical extent for each road would vary, with the A436 and B4070 affecting a relatively short section of the route compared to the A417, which would affect a large number of people over a relatively longer section, over a medium area.

The duration of effect on views over the operational phase would be longer than 15 years and would be not reversible.

Road users on the main road network within the study area would experience a **minor and adverse** magnitude of effect.

#### Significance of effect

As at year 1, at year 15 there would be a **slight, adverse and not significant effect**.

The significance of effect would not be neutral even at year 15 due to the extent of changes to views along the scheme, particularly along the offline section between Ullenwood junction and Cowley junction as this would be a new section of road.



**Table 2-8 A417, A436 and B4070 summary of effects**

Sensitivity	Very high	High	Medium	Low	Negligible
<b>Construction phase</b>					
<b>Magnitude of effect</b>	Major	Moderate	<b>Minor</b>	Negligible	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral
<b>Operational phase (year 1 – opening year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	<b>Minor</b>	Negligible	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral
<b>Operational phase (year 15 – design year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	Minor	<b>Negligible</b>	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	Slight	<b>Neutral</b>

### Local minor road network

**Table 2-9 Assessment of visual effects on users of the local minor road network**

<b>Receptor: road users on minor roads</b>
<p><b>Representative viewpoints:</b></p> <p>This receptor is represented by the following viewpoints listed, refer to ES Figure 7.1 Visibility (ZTV no vehicles) and Viewpoints (Document Reference 6.3) and ES Figure 7.2 Visibility (ZTV with vehicles) and Viewpoints (Document Reference 6.3) for its location:</p> <ul style="list-style-type: none"> <li>• VP1 Roman villa car park;</li> <li>• VP3 Droy's Court;</li> <li>• VP6 Old Coach Road overbridge A417;</li> <li>• VP13 Cold Slad Lane junction with A417;</li> <li>• VP14 Cold Slad Lane;</li> <li>• VP21 Entrance to Crickley Hill Country Park;</li> <li>• VP36 PRoW north of Stockwell on junction with rural lane;</li> <li>• VP38 Byway at Stockwell;</li> <li>• VP39 Birdlip;</li> <li>• VP42 Rural lane west of Cowley Wood; and</li> <li>• VP43 Brimpsfield.</li> </ul>
<p><b>Baseline description</b></p> <p>Road users on the minor road network currently experience a wide range of views as they travel through the landscapes of the study area. Views range from enclosed, tunnel like views on sections of Cold Slad Lane (VP13 and 14), Leckhampton Hill Road (VP21) and at Barrow Wake, to open</p>

### Receptor: road users on minor roads

extensive views over the undulating wolds. Views are channelled along the road by avenues of trees at Stockwell (VP36 and 38) and Cowley, with intermitted or glimpsed views from the elevated road to the low-lying valleys below or across large arable farmland (VP42). Skylines are generally well wooded due to frequent tree cover and hedgerows.

Rural views are interrupted across the network where it interacts and connects with the existing A417. From short sections of the road, large volumes of fast-moving vehicles can be seen.

Minor roads that are considered here include the short section of road between the B4070, Barrow Wake and Birdlip Radio Station at Shab Hill; Cold Slad Lane at the junction with the existing A417; the junction of Leckhampton Hill Road and the A436; access roads to Stockwell and the road between Cowley and Brimpsfield.

Users travelling on rural roads linking the communities of Little and Great Witcombe experience few views of the existing A417, being restricted by hedgerows field boundaries and woodland. Views are predominantly channelled along the road network, except at a few locations where views of the escarpment can be gained such at Droy's Court (VP3) and the car park at the Witcombe roman villa (VP1).

#### Nature of receptors (sensitivity)

Motorists on the local minor road network, including Leckhampton Hill Road, Cold Slad Lane and minor roads at Stockwell, Cowley and Shab Hill are considered to have some ability to accommodate visual change because their attention is predominantly on navigating the roads safely, and not focussed on the landscape around them compared to people walking in the open countryside. Views from these roads are not documented as nationally or locally important but nonetheless are valued by the local population. Overall, and combining judgements on susceptibility with value, visual receptors at this location are assessed as being of **negligible sensitivity**.

#### Construction phase

#### Nature of effects (magnitude)

Changes to the following minor roads would occur as a result of the scheme: the section of road between B4070, Barrow Wake and Birdlip Radio Station at Shab Hill; Cold Slad Lane at the junction with the existing A417; the junction of Leckhampton Hill Road and the A436; access roads to Stockwell and the road between Cowley and Brimpsfield.

For users on the local road network, both the construction works and the existing A417 would be seen together during the construction phase, being dominant and would cause a medium visual change in near views. Traffic management on all routes would cause changes to the baseline situation, particularly on the access road to the community of Shab Hill as a result of the new road alignment, widening and upgrading to the proposed new section of the B4070, as well as Shab Hill junction. Construction activities associated with the offline section would be readily apparent to motorists on the existing network where it crosses north of Stockwell and south of Cowley. Construction of the overbridges and road realignment works, including tree felling, at these locations would occur offline but would be highly visible in close proximity to the road users. Building the online section would cause a small level of change for users on Cold Slad Lane at the junction with the A417 only. Here, obvious changes would be the removal of woodland along southern boundary of the existing road, movement of construction traffic and personnel, and earthworks activity to create the embankments. The construction activity would be perceived by motorists on the minor road network at a few locations along short sections of the wider network, affecting a relatively small number of people over a small area.

The duration of effect on views would be the construction phase, which would be **short-term** (33 months) and would be partially reversible (because construction activities would be removed, however, felled trees and large-scale excavation and earthworks would not be able to be fully restored).

The scheme is therefore predicted to result in a **minor** and **adverse magnitude of effect** for motorists using the minor road network within the study area.

#### Significance of effect

<b>Receptor: road users on minor roads</b>
<p>For users of the minor road network, the construction works are predicted to result in a <b>slight, adverse and not significant effect</b>, due to a moderate magnitude of effect to views valued at a community level, affecting <b>negligible</b> sensitivity receptors.</p> <p>The significance of effect would not be neutral as a result of a medium scale of change being experienced by users of the minor road network.</p>
Operational phase (year 1 - opening year)
<p><b>Nature of effects (magnitude)</b></p> <p>At year 1, motorists using the minor road network would experience a small visual change as a result of the recently completed scheme. Changes to the minor road between the B4070, Barrow Wake and Birdlip Radio Station at Shab Hill would experience the greatest change as a result of the new road alignment, widening and upgrading to the proposed new section of the B4070, and introduction of Shab Hill junction. Shab Hill junction would appear on the horizon, elevated from the B4070 and new access to Rushwood Kennels. At these locations, the scheme would cause an obvious change with the junction becoming a dominant feature in views.</p> <p>Motorists travelling on Cold Slad Lane would experience a visual benefit, with a newly aligned single carriageway road where the junction with the A417 used to be. Their now altered route would continue up the existing A417 alignment but would be separated and elevated from the proposed A417, allowing extensive views over the escarpment slopes and out towards Brockworth.</p> <p>At the junction of Leckhampton Hill Road and A436, there would be a short section of realigned road connecting into the proposed Ullenwood junction. Here motorists would experience a newly configured junction, which would be of a similar nature to the baseline situation.</p> <p>Road users on the access roads to Stockwell and Cowley would experience views of the recently finished landscape embankments, replacement avenue tree planting and short sections of realigned roads on overbridges. The landscape embankments and inner embankment slopes with exposed rock, left bare from soil or vegetation would for a short time appear bright yellow.</p> <p>The changes would be perceived by motorists at a few locations along short sections of the wider network, affecting a relatively small number of people over a small area. The duration of effect on views over the operational phase would be between 2-15 years and would be not reversible.</p> <p>Road uses on the minor road network within the study area would experience a <b>minor and adverse</b> magnitude of effect.</p>
<p><b>Significance of effect</b></p> <p>For users of the minor road network, the scheme at year 1 would result in a <b>slight, adverse and not significant effect</b>, due to a minor magnitude of effect to views valued at a community level affecting negligible sensitivity receptors.</p> <p>The significance of effect would not be neutral due to the extent of changes to views along the scheme, particularly along the offline section between Ullenwood junction and Cowley junction as this would be a new section of road.</p>
Operational phase (year 15 – design year)
<p><b>Nature of effects (magnitude)</b></p> <p>At year 15, visual change would be of a similar magnitude as at year 1. However, mitigation planting would be fully established and maturing, providing screening to views of the scheme. The exposed rock faces and landscape embankments would be more muted and covered in vegetation. This would result in a very minor visual change.</p> <p>The changes would be perceived by motorists at a few locations along short sections of the wider network, affecting a relatively small number of people over a small area.</p> <p>The duration of effect on views over the operational phase would be for longer than 15 years and would be <b>not reversible</b>. Overall, the magnitude of effect for motorists on the minor road network would be <b>negligible and adverse</b>.</p>
<p><b>Significance of effect</b></p>

**Receptor: road users on minor roads**

At year 15, changes to views as a result of the scheme would be imperceptible over a small geographical extent, resulting in a **neutral** and **not significant effect**, due to a negligible magnitude of effect to views valued at a community level, affecting low sensitivity receptors.

The significance of effect would not be slight at year 15 given the imperceptible change to views over a small geographical extent, affecting receptors with a low sensitivity.

**Table 2-10 Local minor road network summary of effects**

Sensitivity	Very high	High	Medium	Low	<b>Negligible</b>
<b>Construction phase</b>					
<b>Magnitude of effect</b>	Major	Moderate	<b>Minor</b>	Negligible	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral
<b>Operational phase (year 1 – opening year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	<b>Minor</b>	Negligible	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	<b>Slight</b>	Neutral
<b>Operational phase (year 15 – design year)</b>					
<b>Magnitude of effect</b>	Major	Moderate	Minor	<b>Negligible</b>	No change
<b>Nature of effect</b>	<b>Adverse</b>	Beneficial	Neutral		
<b>Significance of effect</b>	Very large	Large	Moderate	Slight	<b>Neutral</b>