

A27 Arundel Bypass

Public consultation

Have your say



22 August to 16 October 2017

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Introduction

About us

Highways England is the Government company responsible for operating, maintaining and improving England's major A roads and motorways, which includes the A27 at Arundel in West Sussex.

Have your say

We are consulting on options to improve the A27 at Arundel, by replacing the existing single carriageway road with a new dual carriageway, linking together the 2 existing dual carriageway sections either side of the town.

We are at an early stage in the development of the scheme and want your views to help inform its future direction.

Inside this brochure you will find details of the 3 improvement options for the A27 at Arundel. This brochure also provides an explanation of how we have developed the options and why. To help you consider your response, the key benefits and impacts of each of the options are set out in a series of tables starting on page 26.

How to find out more

You can also find out more about the scheme at our public exhibitions. We have arranged these in your area so that you can talk to members of the project team. See page 32 for dates and venues.

There are more scheme details in our technical reports on our website:

www.highways.gov.uk/a27arundel

How to give us your views

This consultation is an opportunity for you to comment on the future direction of the scheme, as we will review and consider all comments received before a preferred option is selected. Please tell us what you think by filling in the questionnaire.

Your views will help us to decide on a preferred option. Once it has been selected, the preferred option will then be designed in more detail and we will undertake further consultation.

You can use the following methods to respond to the public consultation:

- Complete the questionnaire and send it to us at:
FREEPOST A27 ARUNDEL
- Visit our website and complete the questionnaire online at:
www.highways.gov.uk/a27arundel
- Come to one of our public consultation events where you can return your completed questionnaire.
- Or if you have any questions, or would like the information in a different format, please contact us by:
- Email:
A27ArundelBypass@highwaysengland.co.uk
- Telephone: 0300 123 5000 (24 hours)

The consultation closes **11:59pm** on **16 October 2017**.

About the A27 Arundel Bypass

The A27 Arundel Bypass scheme is identified within the Government's 2015-2020 Road Investment Strategy which states that England's strategic road network requires upgrading and improving to ensure it can deliver the performance needed to support the nation in the 21st century.

A budget of between £100-£250 million has been allocated to the scheme. It is part of a package of investments along the A27 corridor to increase its capacity and condition which includes schemes at Worthing and Lancing and East of Lewes.

The scope of the A27 Arundel Bypass scheme described in the Road Investment Strategy is:

"The replacement of the existing single carriageway road with a dual carriageway bypass, linking together the two existing dual carriageway sections of the road."

This corresponds to the 6 kilometre section of the A27 from the A284 Crossbush junction (east of Arundel) to the west of Yapton Lane (west of Arundel). The A27 currently goes through the South Downs National Park and the town of Arundel passing over the River Arun and crossing the railway line as shown in Figure 1.

Other A27 schemes in the Road Investment Strategy

Although the A27 Arundel Bypass scheme is part of a wider programme of investment, it is considered a standalone scheme and of significant benefit to traffic, capable of being implemented independently. The current position of the other A27 schemes is as follows:

- **Chichester Bypass:** Options to improve conditions at Chichester were consulted on last year (July to September 2016). The support and funding contribution from local councils was vital to this scheme. The withdrawal of support from local councils for the options put forward in the public consultation has contributed to a critical lack of consensus. As such the scheme is no longer able to proceed. More details are provided at:

www.highways.gov.uk/a27chichester

- **A27 East of Lewes:** Options for the A27 East of Lewes scheme underwent public consultation from October to December 2016. More information can be found at:

www.highways.gov.uk/A27EastofLewes

- **A27 Worthing-Lancing improvements:** Consultation for this scheme is being undertaken this summer. More information can be found at:

www.highways.gov.uk/a27Worthing-and-Lancing

A27 Corridor Feasibility Study found that, at Arundel, the A27 is already operating at 100%-150% capacity. Due to population growth and increased economic activity in the region there will be more traffic using the A27 through Arundel in the future.

3. On either side of Arundel, the A27 is a dual-carriageway which has the capacity to carry existing traffic flows and is more able to cope with future traffic growth. However, the single carriageway section and junctions through Arundel do not cope with existing traffic. This often results in long queues of traffic approaching Arundel.

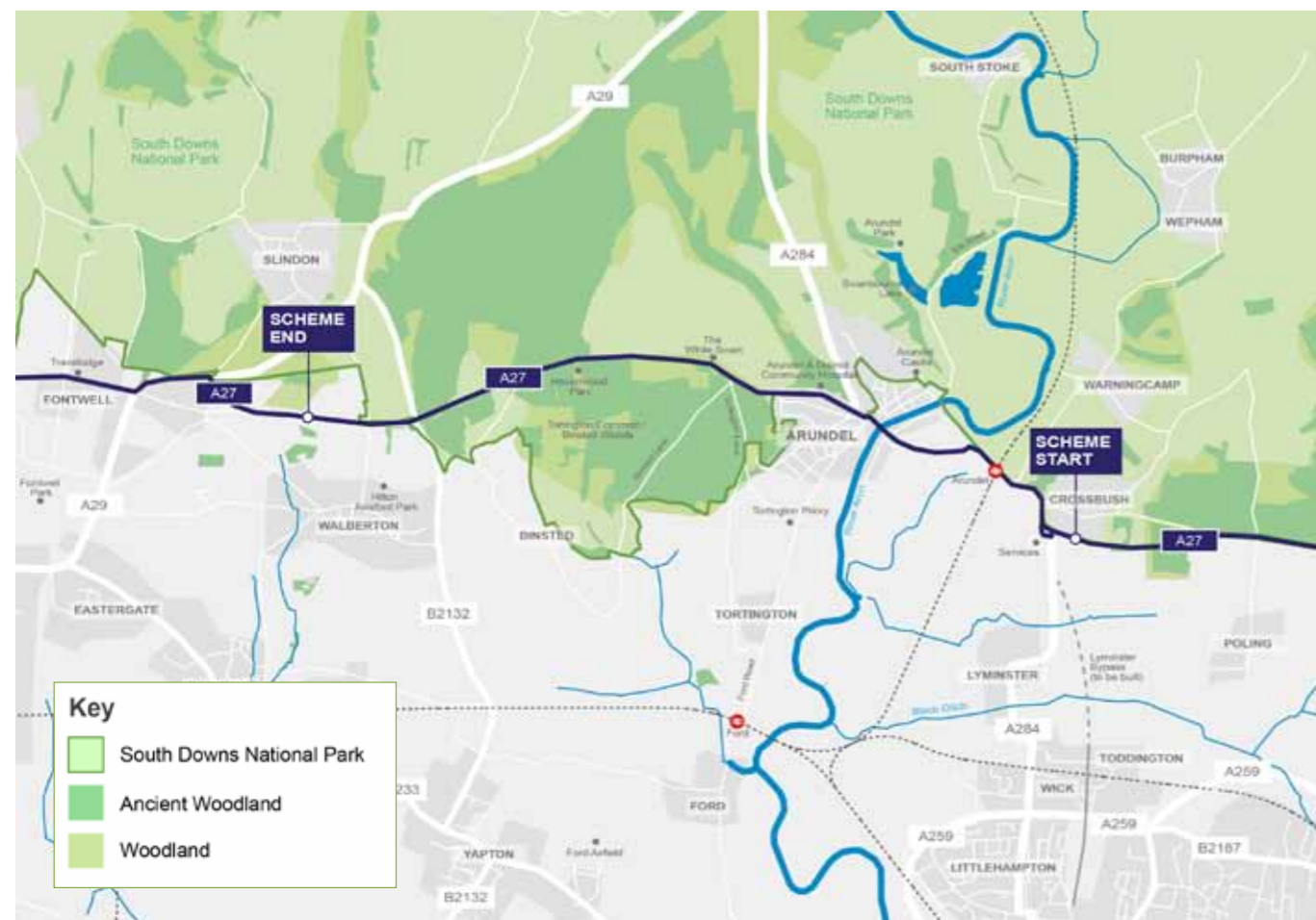
4. Due to congestion, some longer distance traffic subsequently diverts away from the A27 to alternative routes which are less suited to high volumes of traffic. To the north, this includes the B2139 through the South Downs National Park and local villages and towns (Houghton, Amberley and Storrington). The traffic disrupts the otherwise tranquil nature of the South Downs National Park and affects the quality of life for those living alongside the route. The main alternative route to the south is via the B2233, passing through the villages of Eastergate, Barnham, Yapton and Climping, which adversely affects people living alongside this route and for those walking, cycling and horse riding. These local roads are not suited to large volumes of traffic so their safety is compromised.

5. There are an above average number of accidents on the A27³ From 1 June 2010 to 31 May 2015, there were 68 collisions with casualties recorded between Yapton Lane in the west to Crossbush junction in the east.

Without improvement, the congestion and delay on the A27 through Arundel will increase in the future.

Even if greater reliance on public transport, walking and cycling could reduce some of the future demand for car travel, this is unlikely to solve the problems of queueing and congestion on the A27 through Arundel.

Figure 1: Scope of scheme



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Why we need this scheme

1. The A27 is the only east-west trunk road south of the M25, and provides access to a number of coastal communities between Portsmouth and Pevensey. It serves a population of over 750,000 people, and a large number of businesses in major towns and cities including Portsmouth, Havant, Chichester, Arundel, Worthing, Brighton and Hove and Eastbourne. West Sussex also attracts, on average, 17 million visitor days per year, worth approximately £508 million to the local economy¹.

2. The A27 is used by both through-traffic and local traffic: two-thirds (67%) of the traffic that currently uses the A27 between Crossbush roundabout and Causeway roundabout is through-traffic while the remaining third (33%) is local². The 2015

¹The GB Day Visitor Statistics 2015, Visit Britain

²Local traffic has an origin or a destination in Arundel. Through-traffic has an origin and a destination outside Arundel. Based on 2015 data.

³Based on the national average for rural A roads, from Reported Road Casualties for Great Britain (RRCGB).

How people travel in the Arundel area

The car is an important means of transport in the area:

- 71% of those Arun District residents who are currently in employment, drive (or are driven) to work by car/van
- 10% walk
- 5% travel by train
- 4% cycle
- 2% travel by bus, minibus or coach
- 1% travel by motorcycle⁴.

Plans for improving alternative transport options

Bus

There are no significant plans for bus improvements in the area.

Walking and cycling

We intend to maintain current walking and cycling routes and where possible incorporate better walking, cycling and horse riding access in our design to encourage greater use of sustainable transport for local journeys.

We welcome your thoughts on any potential improvements to the current facilities. Detailed proposals will be discussed with the relevant authorities and cycling, walking and equestrian groups.

Rail

There have been 2 studies looking at rail infrastructure investments in the South Coast Corridor⁵. One looked at infrastructure investment priorities for the railways from London to South Coast and the other explored opportunities to improve the Coastway rail service. Neither study recommended improvements in the area as a priority nor found that the improvements would offer good value for money.

Therefore we have no evidence to suggest that there will be any significant switch from road to rail along the A27 corridor between Chichester and Brighton that would meet the overall future demand for travel.

Improving the A27 at Arundel would:

- Considerably reduce the existing queues and delays
- Improve journey times, air quality and road safety
- Remove traffic from less suitable routes within the South Downs National Park
- Help businesses to reduce their costs, support expansion and provide new employment opportunities
- Support the growth of tourism.

Scheme objectives

The high-level objectives have been developed while working with the local authorities, the South Downs National Park Authority, other environmental bodies and the emergency services over the last 2 years:

- Improve capacity of the A27 whilst supporting local planning authorities to manage the impact of planned economic growth.
- Reduce congestion, reduce travel time and improve journey time reliability along the A27.
- Improve the safety of travellers along the A27 and consequently the wider local road network.
- Improve accessibility for all users to local services and facilities.

- Deliver a scheme that minimises environmental impact and seeks to protect and enhance the quality of the surrounding environment through its high quality design.
- Respect the South Downs National Park and its special qualities in our decision-making.

Recognising the special nature of Arundel & the South Downs National Park

Our licence sets out our commitment to minimising the environmental impact of our road network and to protecting and enhancing the quality of the surrounding environment. This is a unique challenge within the Arundel area.

When considering what we might be able to do at Arundel, we have carefully considered a wide range of significant environmental challenges and these are shown in [Figure 2](#).

- **National Park:** The South Downs National Park is a nationally designated landscape. We have a legal duty to have regard to the twin purposes of the National Park:
 - To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park
 - To promote opportunities for the understanding and enjoyment of its special qualities.

Reducing congestion on the A27 and the use of other, less suitable routes through the South Downs National Park may provide benefits to communities in the Park, however, the scheme could also have impacts on landscape, tranquillity, dark night skies, biodiversity, recreation and heritage. The South Downs National Park Authority is a key consultee and we will seek to design a scheme that is as sensitive as possible to the area.

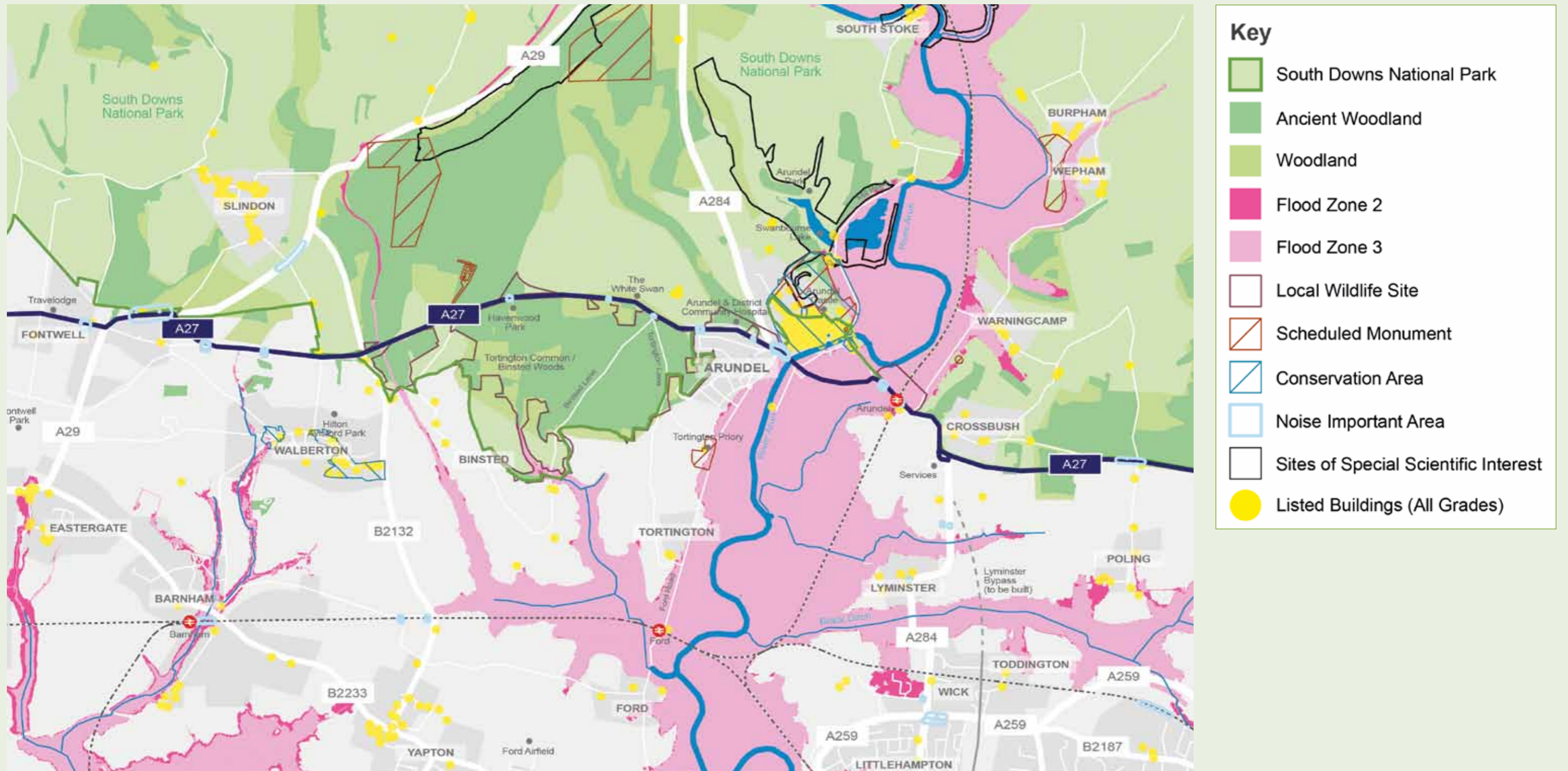
- **Ancient Woodland and Veteran Trees:** Tortington Common / Binsted Woods is a woodland area that has existed since at least 1600 AD. The soil has been relatively undisturbed and this produces communities of plants and animals that depend on the stable and rare conditions that an ancient woodland provides. Ancient woodland and veteran trees are protected by national planning policy.

- **Scheduled Monuments and Heritage Assets:** including Arundel Castle, Tortington Priory and the remains of a Roman Road found near Havenwood Park (not yet designated).

- **Floodplain:** both coastal and river flooding are possible in the Arundel area, covered by 2 different flood zones:
 - Flood Zone 2: land having between a 1 in 100 and 1 in 1000 annual probability of river flooding; or between a 1 in 200 and 1 in 1000 annual probability of sea flooding.
 - Flood Zone 3: land having a 1 in 100 or greater annual probability of river flooding; or a 1 in 200 or greater annual probability of sea flooding. The Environment Agency requires us to mitigate any risk that we might worsen the flood risk for Arundel and the area south of Arundel. We will ensure that the standard of protection served by the existing flood defence is not compromised and that there is not an adverse impact on flood risk.

⁴Method of travel to work: 2011 Census NOMIS
⁵London and South Coast Rail Corridor Study, Department for Transport (March 2017) and Sussex Area Route Study (September 2015)

Figure 2: Environmental constraints



South Downs National Park	National Parks are areas of relatively undeveloped and scenic landscape that are designated under the National Parks and Access to the Countryside Act 1949. The South Downs National Park was designated in 2010 covering 1600km ² from Winchester (in the west) to Eastbourne (in the east).
Ancient Woodland	Woodland that has existed since at least 1600 AD. It is given national level of protection.
Flood Zones	Flood Zone 2: land having between a 1 in 100 and 1 in 1000 annual probability of river flooding; or between a 1 in 200 and 1 in 1000 annual probability of sea flooding. Flood Zone 3: land having a 1 in 100 or greater annual probability of river flooding; or a 1 in 200 or greater annual probability of sea flooding.
Local Wildlife Site	Area of land that has been identified and selected locally, using robust, scientifically-determined criteria and detailed ecological surveys for its nature conservation importance.
Scheduled Monument	A historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Culture, Media and Sport.
Conservation Area	Area designated by Local Planning Authority that is of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance.
Noise Important Area	Noise Action Planning Important Areas for roads and railways provide a framework for the local management of the important areas.
Site of Special Scientific Interest	Providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. These sites are also used to underpin other national and international nature conservation designations.
Grade Listed Building	Listing marking a building's special architectural and historic interest, and also brings it under the consideration of the planning system, so it can be protected for future generations. There are 3 gradings in order of the level of interest: Grade I, Grade II* and Grade II.

The options for the A27 Arundel Bypass

We have undertaken traffic and environmental surveys and assessments between 2015 and 2017 (some of which are still ongoing) and have explored a number of bypass options.

We have worked collaboratively with local highway and planning authorities to understand constraints and opportunities, so that we can develop options that we hope will secure public support, whilst minimising the impacts as much as possible.

For an option to be taken forward to public consultation, it must be broadly affordable against the available budget, offer value for money and help to achieve our project objectives.

Our technical work has concluded that, of all the options considered, there are **3 options** that meet these criteria: **Options 1, 3 and 5A**. These are described below and shown in [Figure 3](#) on page 12.

In summary:

- All of our options would support the local housing and employment growth strategies of the local authorities and cater for traffic growth until at least 2041.
- There are significant environmental constraints and national planning policy risks that affect all 3 options.

As this consultation is taking place at an early stage of scheme development, the level of detail we are able to set out and the plans we can put forward to reduce the likely impacts of the scheme are limited. As our technical work progresses, we will develop more detailed proposals for the option that is progressed following the Preferred Route Announcement.

As part of this study, 5 other options have been investigated but not put forward for public consultation as they do not deliver against the scheme objectives or are not affordable. These are described later in the Annex on page 36.

Junction designs

[Figures 4–7](#) show what is proposed at the key junctions and how the bypass would tie in with the existing A27. Designs for local access points, including access to Havenwood Park, are currently being considered.

Walking, cycling and horse riding

All 3 options have the potential to maintain or improve the connectivity for walkers, cyclists and horse riders. More details on these facilities can be viewed in our *A27 Arundel Bypass: facilities for walkers, cyclists and horse riders [non-motorised users (NMUs)] summary* available online and at the public exhibitions.

Option	Description
Option 1	<ul style="list-style-type: none"> ■ Improvements at Crossbush junction. ■ A new dual carriageway from Crossbush junction, passing to the south-west of Arundel railway station, joining the A27 east of Ford Road. ■ New bridges over the railway line and over the River Arun⁶. ■ From Ford Road roundabout (to be traffic signal controlled to reduce congestion) the existing A27 toward Chichester would be widened to dual carriageway. ■ East of Ford Road roundabout, the existing bridge over the River Arun will be retained as the new eastbound carriageway of Option 1. The existing A27 between the River Arun to Causeway roundabout will become a one-way off-slip to enable access to Arundel Railway Station from the west. To return, traffic will use the existing A27 road to access Crossbush junction or via the town centre towards Ford Road roundabout. ■ New pedestrian / cycle path from Crossbush junction, using the existing section of the A27. Continuity would be provided with a pedestrian / cycle path incorporated alongside the widened A27 as far as the Binsted Lane junction where it connects to existing Public Rights of Way and footpaths.
Option 3	<ul style="list-style-type: none"> ■ Improvements at Crossbush junction. ■ New dual carriageway from Crossbush junction south of the current A27. ■ New bridges over the railway line and River Arun. ■ From Ford Road the route continues north through Tortington Common and the South Downs National Park. ■ Re-joins the existing A27 at a new junction near Havenwood Park. ■ This is the same as the Pink / Blue Route which was previously announced as the preferred route in 1993. ■ There would be a continuous pedestrian / cycle path between Crossbush junction and Yapton Lane along the existing A27.
Option 5A	<ul style="list-style-type: none"> ■ Improvements at Crossbush junction. ■ Follows the same alignment as Option 3 between Crossbush junction and Ford Road. ■ From Ford Road the route continues west, before going north through the South Downs National Park and at Binsted Woods. ■ Re-joins the existing A27 at a new junction near Yapton Lane. ■ There would be a continuous pedestrian / cycle path between Crossbush junction and Yapton Lane along the existing A27.

⁶The existing railway bridge is in poor condition and it will need to be replaced in the near future.

Figure 3: A27 Arundel Bypass options

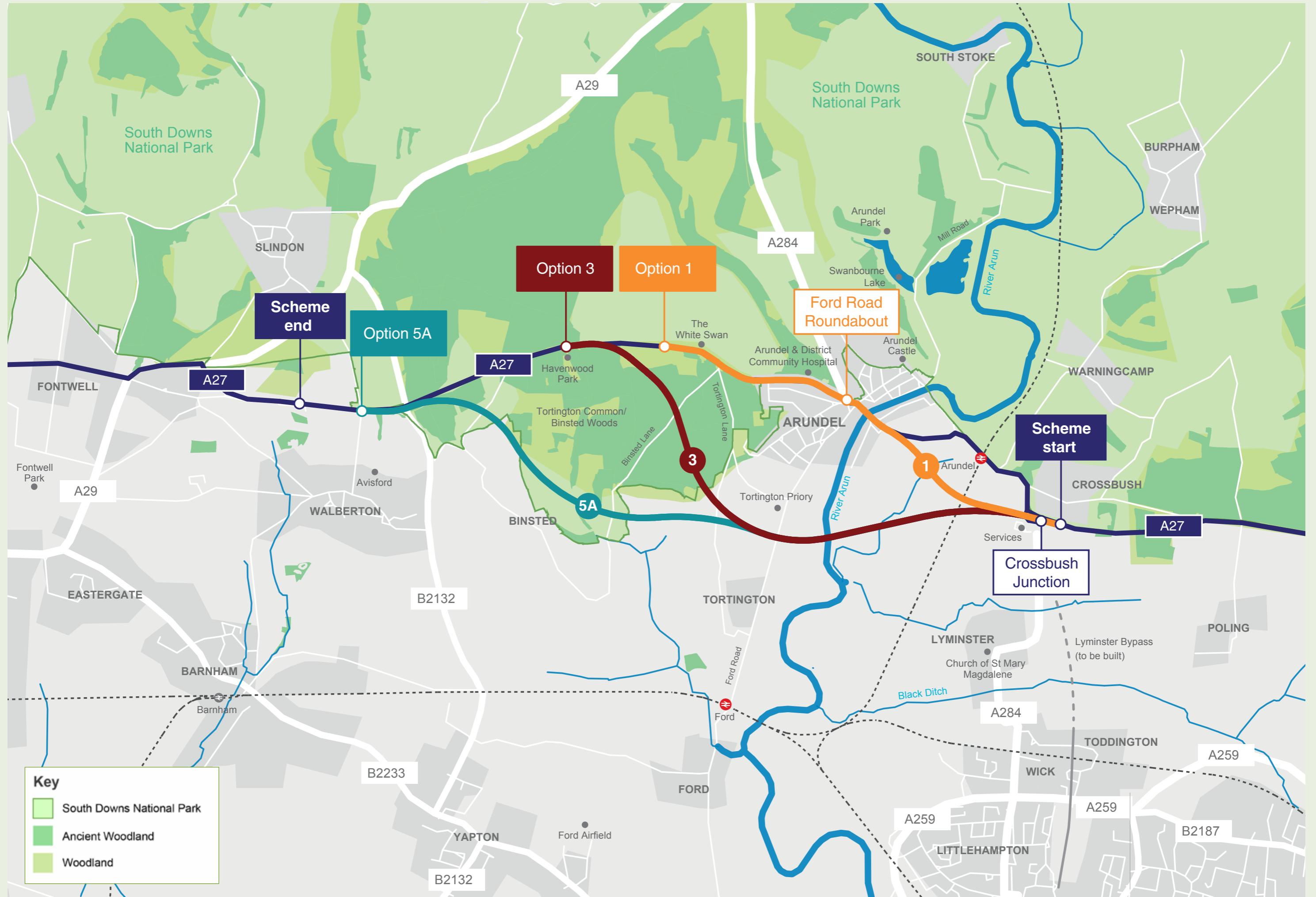


Figure 4: Crossbush junction: All options.

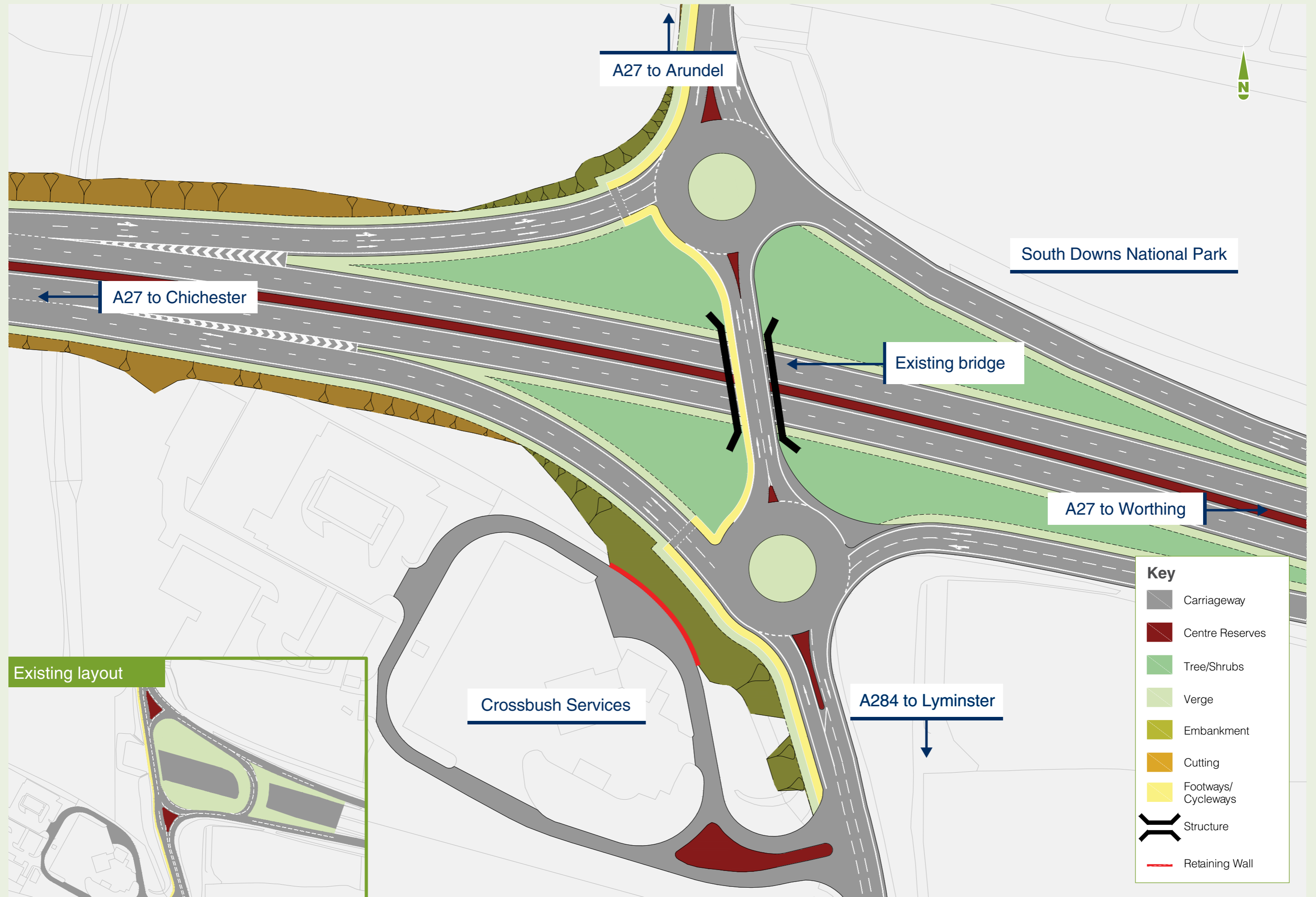


Figure 5: Option 1 – Ford Road roundabout design

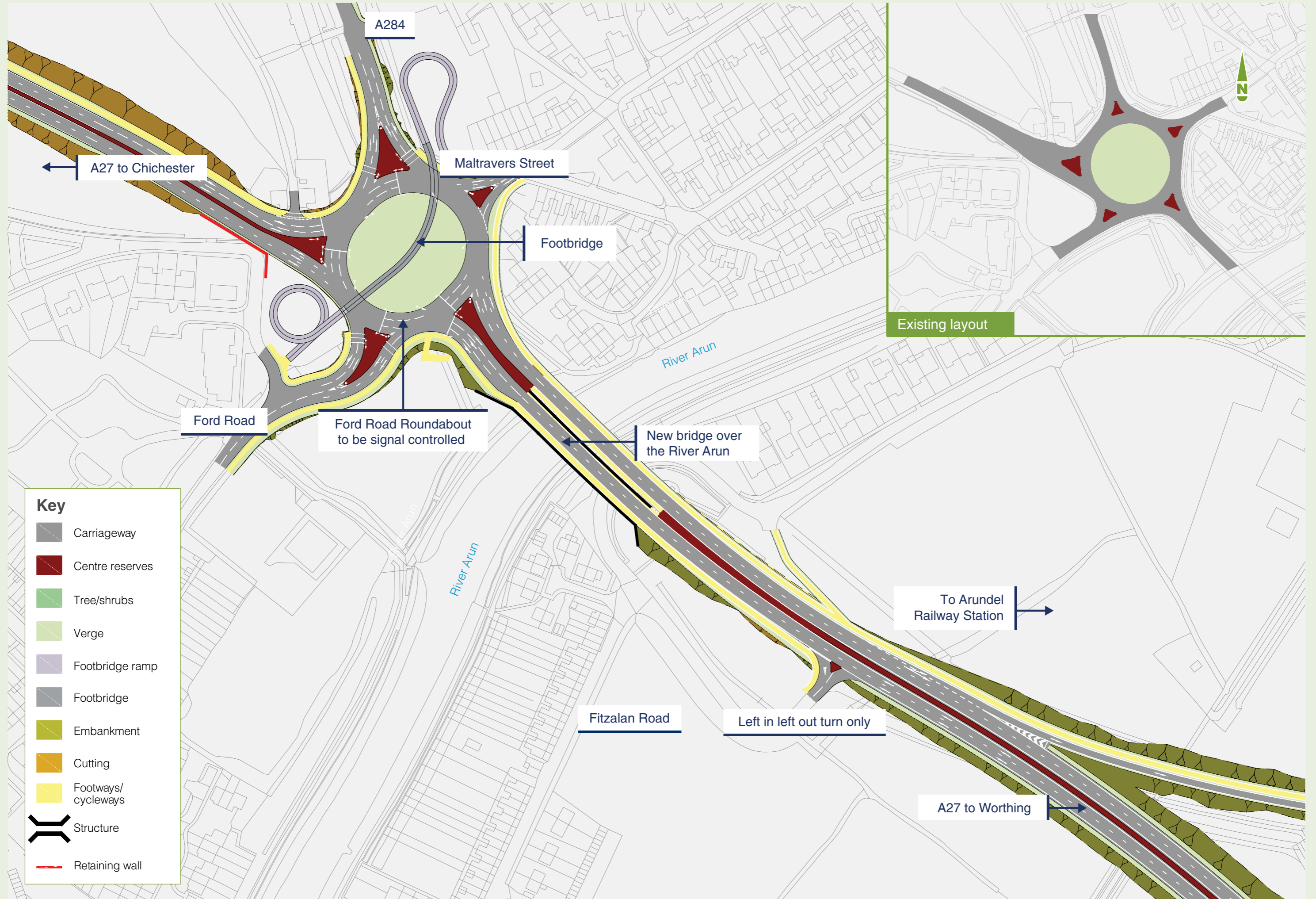


Figure 6: Option 3 – New junction design at Havenwood Park

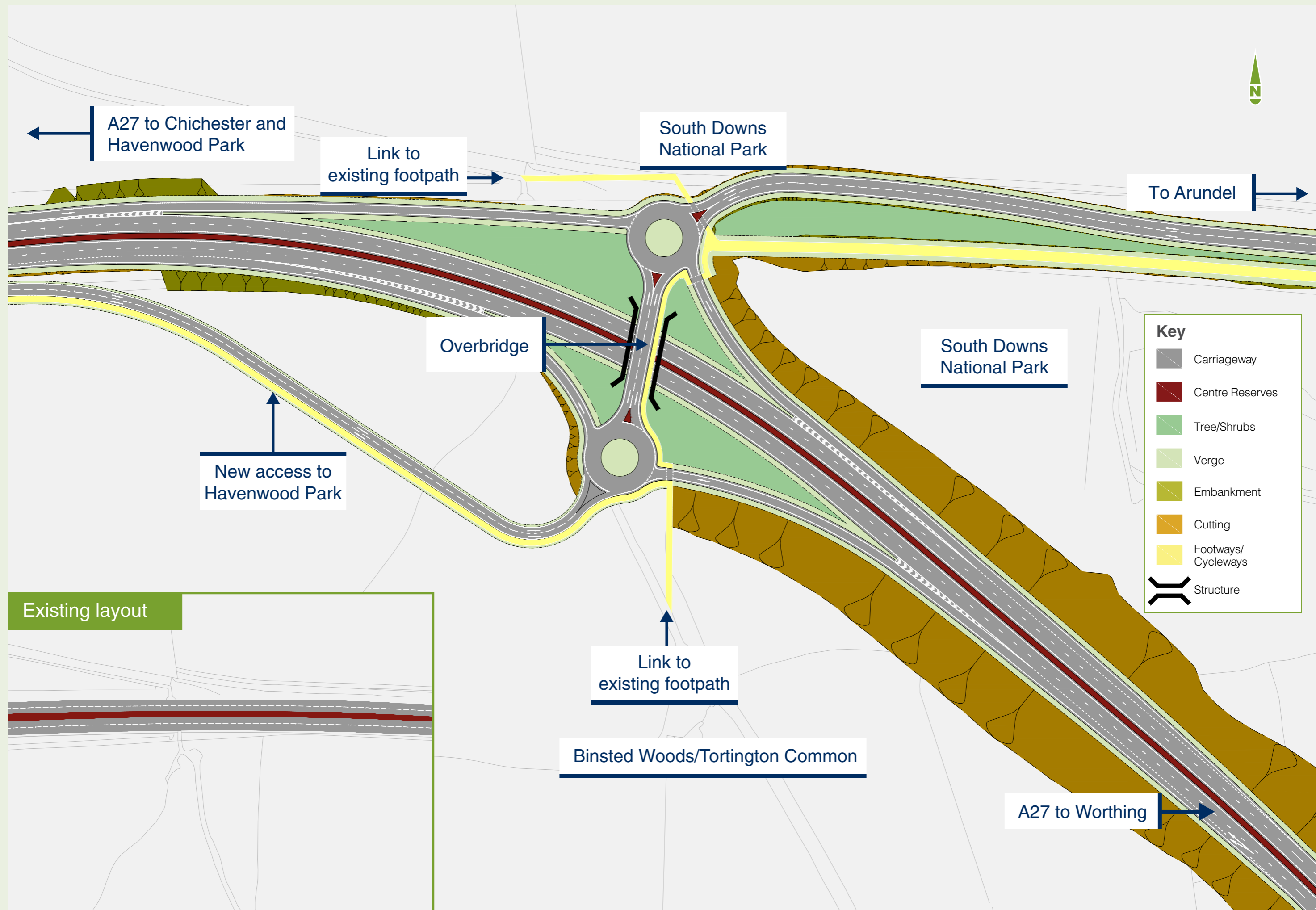
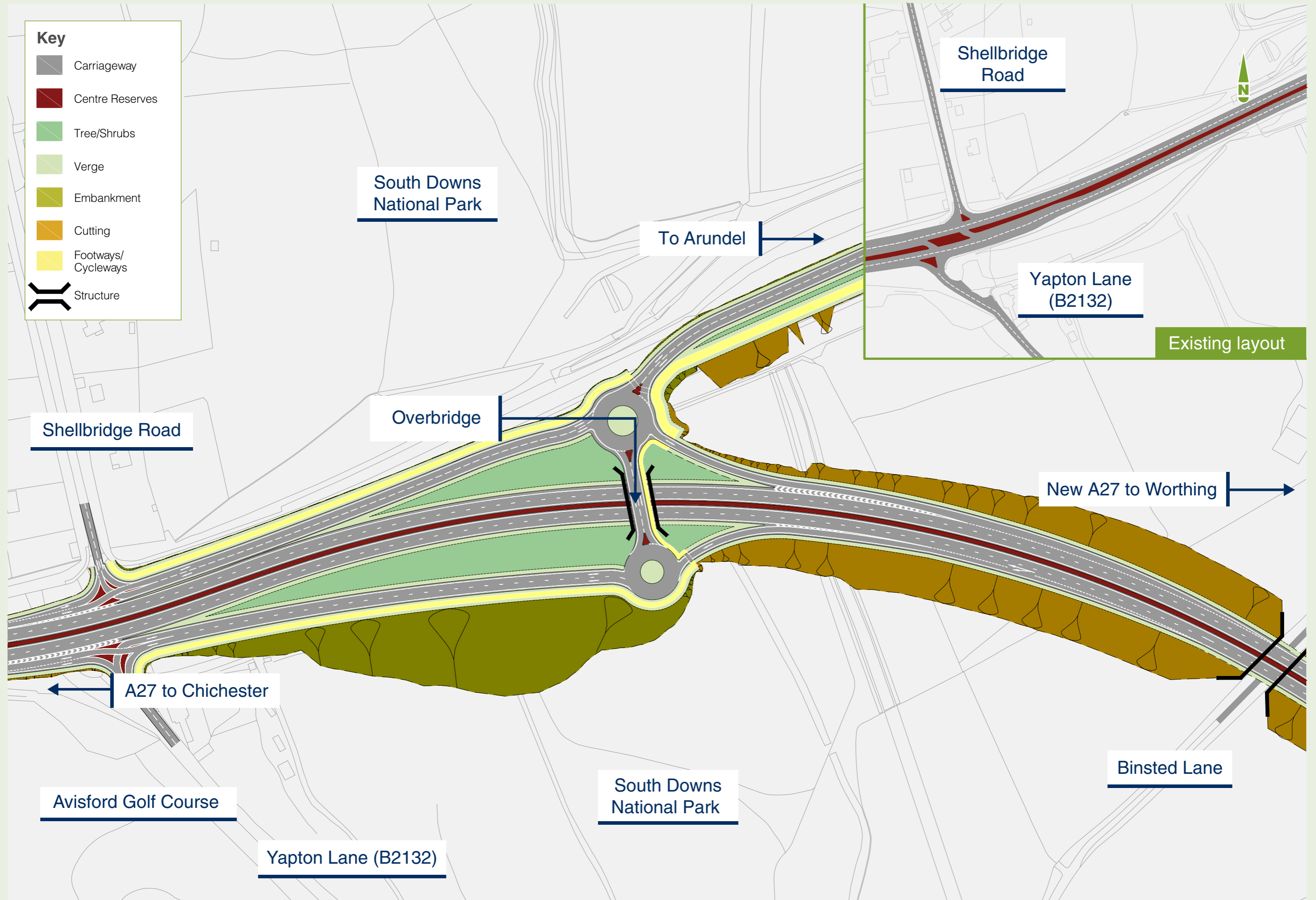


Figure 7: Option 5A – New junction design at Yapton Lane



How the options compare: traffic

All of our options have been tested to see how they will perform in the future. They are tested in the same way so that their performance can be compared. We compare how well they cope with the expected traffic levels in 2041.

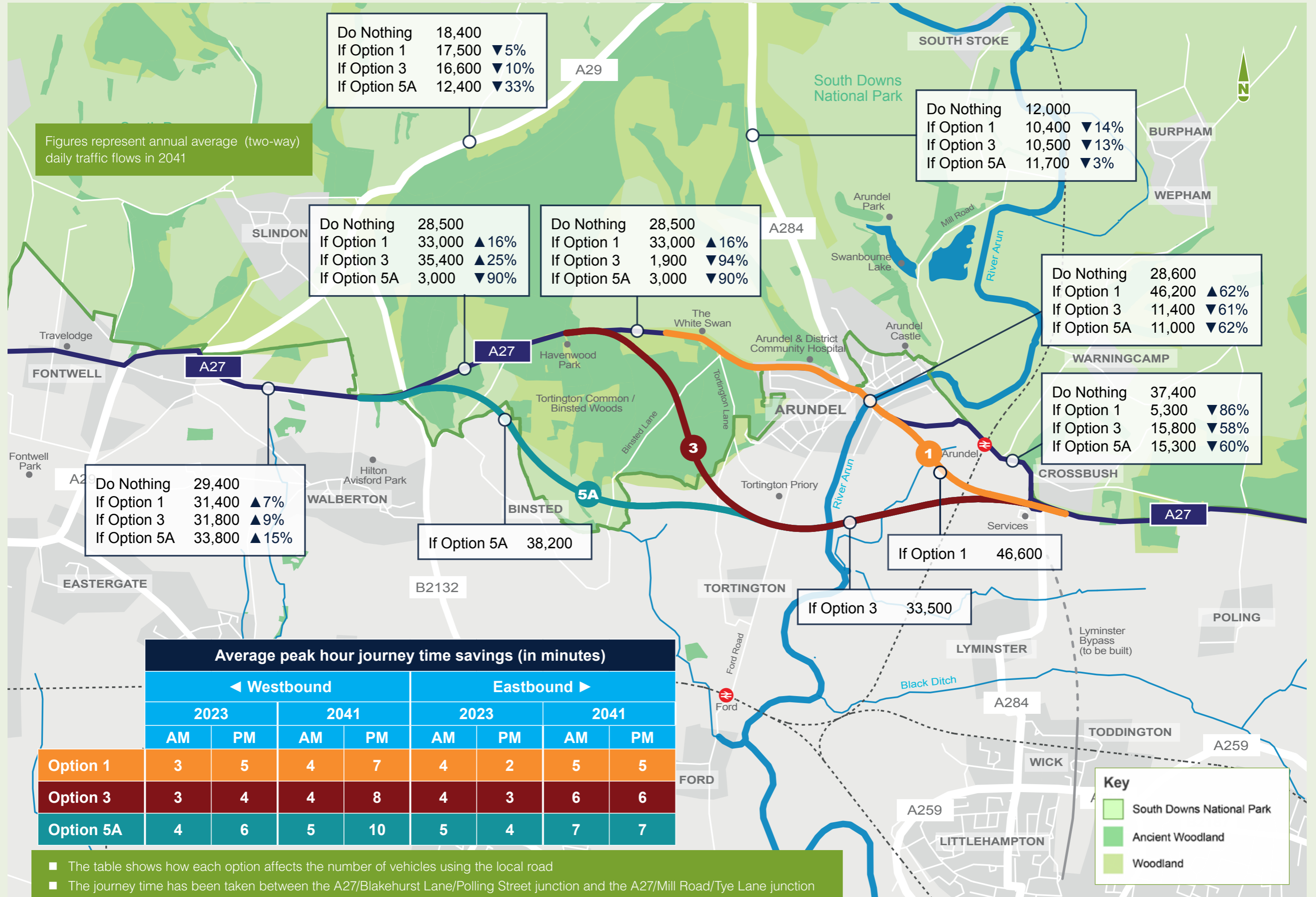
Figure 8 on page 24 shows how each of the options would affect the number of vehicles using the local road network in 2041. It shows that a high proportion of traffic would use a new bypass in preference to the existing route and other routes to the north and south of Arundel. The traffic flows are measured as Annual Average Daily Totals (AADT) – the daily total flow of vehicles (in both directions) averaged across the year, but we do also test how they cope in the peak hours.

We also tested a 'do nothing' situation which shows that if we do not improve the existing A27 at Arundel, traffic growth would be more limited and the traffic that currently diverts away from the A27 to use alternative local roads would continue to do so.

- Option 1:** This option would draw traffic away from local roads like the A29 (5% reduction) and the A284 (13% reduction). It would also increase traffic flows on new sections of the A27 through Arundel (up by 62%). At the western end of the scheme (west of Walberton) there would be an additional 7% of traffic on the A27 compared to the 'Do nothing' situation.
- Option 3:** This bypass option would draw through-traffic away from Arundel (60% reduction compared to the 'Do nothing' situation). It would reduce traffic using other routes through the South Downs National Park (A29 – 10% reduction; A284 – 13% reduction). Local traffic and traffic accessing Arundel would continue to use the local road network. There would be increased traffic flows after the western tie-in with the existing A27 near Havenwood Park (up by 24%) and at the western end of the scheme (up by 8%).
- Option 5A:** This bypass option would also draw through-traffic away from Arundel (down by 62% compared to the 'do nothing' situation). It would also reduce traffic using other routes through the South Downs National Park (A29 – down by 33%). Local traffic and traffic accessing Arundel would continue to use the local road network. There would be increased traffic flows at the western end of the scheme (up by 15%).



Figure 8: Traffic flows: table shows how each option affects the number of vehicles on local roads in 2041



■ The table shows how each option affects the number of vehicles using the local road
 ■ The journey time has been taken between the A27/Blakehurst Lane/Poling Street junction and the A27/Mill Road/Tye Lane junction

How the options compare: benefits and impacts

Our view of the benefits and impacts for the 3 options is set out below. If you have different views or local information we should be aware of, please tell us in the questionnaire.

Objectives assessment

	Major Benefit	Moderate - Slight Benefit	Neutral	Slight - Moderate Adverse	Major Adverse
Objective	Option 1	Option 3	Option 5A		
Improve capacity whilst supporting local planning authorities to manage the impact of planned growth.	Journey time savings would reduce business costs, save time and provide business and employment opportunities throughout the wider area.	As per Option 1, however these options will provide additional journey time improvements that aid business efficiency and cost.			
Reduce congestion, reduce travel time and improve journey time reliability.	Overall reduction in congestion. Allows for greater flow of traffic and would cater for future traffic demand.	Greater overall reduction in congestion than in Option 1 due to longer sections of dual carriageway and the route avoiding junctions through Arundel. Allows for greater flow of traffic and would cater for future traffic demand.			
	Journey time savings: 3-7 minutes average/vehicle (during peak hours, 2041)	Journey time savings: 4-8 minutes average/vehicle (during peak hours, 2041).	Journey time savings: 5-8 minutes average/vehicle (during peak hours, 2041).		
	Note: The journey time variation is due to direction of travel and time of day. Journey time variability will be reduced compared to present traffic conditions.				
To improve the safety of travellers and consequently the wider local road network.	Some safety benefits as traffic which currently uses local roads to avoid congestion would use the improved A27 instead, though the impact is significantly less than for Options 3 and 5A. Safety benefits for pedestrians by upgrading traffic signals in Arundel to have dedicated pedestrian facilities.	Significant safety benefits over time as a proportion of traffic which currently uses local roads to avoid congestion at Arundel would use the improved A27. There would be a reduction in accidents along the A27 and across the wider network. Option 5A has a slightly greater benefit than Option 3 and both options perform significantly better than Option 1.			
Improve accessibility for all users to local services and facilities.	The A27 would continue to divide the town of Arundel, and a dual carriageway may increase the feeling of separation. Improvements to walking and cycling facilities and upgrades to traffic signals in Arundel would improve local access and movement.	By downgrading the existing A27 (subject to further design) and removing traffic from the centre of Arundel, the town would feel less separated. However new areas would experience severance and separation. Details of how existing roads and public rights of way would be treated between Arundel, Tortington and Binsted have yet to be designed but alternatives would be provided. Plans will be on display at the public exhibitions.			
Deliver a scheme that minimises environmental impact and seeks to protect and enhance the quality of the surrounding environment through its high quality design.	All 3 options have significant environmental impacts with the potential to adversely impact nature conservation, heritage features, landscape, soils, noise and hydrology (see the Environmental appraisal table). Some impacts can be mitigated and compensated through design. <i>The Environmental Impact Assessment (EIA)</i> is ongoing.				
Respect the South Downs National Park and its special qualities in our decision making.	Significant impact on the setting and views of the park, but less than Options 3 and 5A as less land take is required.	Significant impact on the South Downs National Park and its setting. Due to the introduction of the new bypass, there would be noticeable damage to the park.	Significant impact on the South Downs National Park and its setting. Due to the introduction of the new bypass, there would be noticeable damage to the park.		
	The design of the preferred option will incorporate best practice mitigation measures to minimise any potential impacts on the park.				

Environmental appraisal

Table represents environmental impacts before mitigation. For further information please refer to the relevant sections of the Environmental Study Report.

	Major Benefit	Moderate - Slight Benefit	Neutral	Slight - Moderate Adverse	Major Adverse
Objective	Option 1	Option 3	Option 5A		
Air Quality	Expected to have neutral effect on air quality because the congestion benefits will be counteracted by increases in traffic growth in future years.	Expected to have moderate improvement to air quality as congestion at Crossbush junction and along the existing A27 would be removed. However, likely to be worsening in air quality at a small number of locations due to the introduction of a new bypass.			
Cultural Heritage	Slight to major adverse impact expected on the setting of certain nearby designated heritage assets (depending on sensitivity), and a moderate to large adverse effect on earthworks and below ground archaeology within 200m.	Slight to major adverse impacts expected on the setting of certain nearby designated heritage assets (depending on sensitivity), and a moderate to large adverse effect on earthworks and below ground archaeology within 200m. Impact on the setting of the Tortington Priory Scheduled Monument and, because these options have higher land take requirements, there is a higher risk of impacting previously unknown archaeology.			
Landscape	Expected to have slight adverse impact on landscape due to: (1) an increase in built form, (2) loss of mature woodland and hedgerows within the existing highway boundary, and (3) minor loss of ancient woodland (5.5 hectares) adjacent to the existing A27 within the South Downs National Park.	Expected to have moderate adverse impact on landscape due in part to the loss of 24 hectares of mature ancient woodland and a major adverse effect on the visual amenity of the surrounding area.	Would cause noticeable damage to existing unspoilt rural character, distinctive features and loss of tranquillity through the addition of the new road and associated infrastructure, which would comprise uncharacteristic features and elements including 6 hectares of ancient woodland.		
Nature Conservation	Major adverse impact expected due to the potential loss of ancient woodland from Binsted Wood Complex Local Wildlife Site (LWS) and Rewell Wood Complex LWS. Some impacts fall within the National Park, which has statutory purposes that include nature conservation.	Major adverse impact expected due to the potential loss of ancient woodland from Binsted Wood Complex Local Wildlife Site (LWS). This loss is expected to compromise the ecological integrity of the LWS. Some impacts fall within the National Park, which has statutory purposes that include nature conservation.	Major adverse impact expected due to the potential loss of ancient woodland from Binsted Wood Complex Local Wildlife Site (LWS). Some impacts fall within the National Park, which has statutory purposes that include nature conservation .		
Geology and Soils	Slight adverse impact on soils due to the minimal land take and requirements for earthworks.	Expected to have a major adverse impact due to major agricultural land take, topsoil stripping, earthworks and ground disturbance.			
Materials	Expected to have a moderate adverse effect on materials due to the use of raw materials and waste likely to be generated by the construction works.	Expected to have a major adverse effect on materials due to the use of raw materials and waste likely to be generated by the construction works.			
Noise and Vibration	Expected to have slight adverse impact on noise sensitive receptors and local Noise Important Areas (NIAs) in the longer term due to increased traffic flows. Properties in the Arundel railway station area are likely to be less affected.	Expected to have a neutral impact on noise receptors within Arundel.			
People and Communities	Has the potential to increase noise impacts, and subsequently impact upon the amenity, health and wellbeing of people and communities in Arundel.	Will have a permanent adverse effect on people, communities, farming and recreational businesses located south of Arundel.			
Road Drainage and the Water Environment	May have a slight adverse impact on ecological and chemical health of the River Arun and a slight adverse impact on flood risk to urban areas.	May have a moderate adverse impact on ecological chemical and hydromorphological health of the River Arun and a very large adverse impact on flood risk to urban areas due to loss of floodplain storage. The option will cross a number of watercourses and land drains within Fowler's Copse, Binsted Wood and Tortington Common increasing the potential for impact.	May have a moderate adverse impact on ecological chemical and hydromorphological health of the River Arun as well as a very large adverse impact on flood risk to urban areas due to loss of floodplain storage. This option will cross a number of watercourses and land drains increasing the potential for impact.		

Construction impacts are not accounted for in this table; for further information please refer to the relevant sections of the Environmental Study Report.

Environmental mitigation

We intend to mitigate adverse environmental impacts arising from the A27 Arundel Bypass scheme through our design as well as by introducing specific mitigation measures during construction and operation. We will also monitor and review the effectiveness of the mitigation.

At this stage, we are unable to provide detailed information about specific mitigation measures as this detail will be developed as we further design the preferred route. Best practice environmental mitigation is presented in the *Environmental Study Report (ESR)*, which is available to read on the website www.highways.gov.uk/a27arundel and will be available at our exhibitions.

Compensatory Woodland Planting

Options 1, 3 and 5A are all expected to impact on the ancient woodland. As this is against National Policy, Natural England has previously required other large infrastructure schemes to compensate for loss of ancient woodland. The scale of this compensation and the locality of the land that would be used is yet to be identified. We will set out details of the land we propose to compensate for the loss of ancient woodland at the statutory public consultation on the preferred route in spring 2018. More details are set out in our *A27 Arundel Bypass: Environmental Assessment Summary*.

Economic assessment

All of our road schemes have to demonstrate how the costs of construction compare to the benefits to users. This is known as the Benefit to Cost Ratio (BCR). Benefits and costs are made up principally of changes to time-savings to travellers, fuel use, accidents and maintenance and the construction costs, including the purchase of any land required. The values of the different benefit elements are set out by the Department for Transport (DfT) and the costs are estimates based on current construction and maintenance rates.

A Benefit to Cost Ratio (BCR) of 1 would denote that the sum of the benefits was equal to the sum of the costs but a BCR of 2 would indicate that the benefits are twice as much as the costs.

Any scheme with a BCR of 1.5 and above is considered 'medium' value for money, whilst a scheme with a BCR of above 2 is considered high value for money.

Costs and Benefits

	Option 1	Option 3	Option 5A
Most likely cost	£135m	£260m	£250m
BCR (Benefit to Cost ratio)	3.6	2.0	2.6
Value for money	High	High	High

Compliance with National Networks National Policy Statement (NNNPS)

The A27 Arundel Bypass is considered to be a *Nationally Significant Infrastructure Project (NSIP)* and as such it is required to be assessed against the *National Networks National Policy Statement (NNNPS)*. Our initial view is that there are several NNNPS policies that the A27 Arundel Bypass scheme options may engage or possibly conflict with including:

- **5.133: Heritage** – where the proposed development will lead to substantial harm to or total loss of significance of a design heritage asset, the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm or loss is necessary.
- **5.32: Ancient Woodland** – requires the Secretary of State to 'not grant development consent for any developments that would result in the loss or deterioration of irreplaceable habitats including ancient woodland.' Policy 5.32 also requires that the 'need for and benefits of development in that location clearly outweigh the loss'.

- **5.150-5.151: National Park** – the Secretary of State should refuse development consent in these areas except in exceptional circumstances and where it can be demonstrated that it is in the public interest.

- **5.154-5.155: National Park** – the duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation.

- **5.169: Minerals Safeguarding Area** – applicants should safeguard any material resources on the proposed site as far as possible.

Conflict with NNNPS policy carries a greater risk of being refused consent and therefore not being delivered. We will take the NNNPS into account in determining the option to take forward, and in further designing the scheme.



Public exhibitions

You can find out more about the options at our public consultation exhibitions where the project team will be on hand to answer your questions.

Date	Location	Time	Address
Tuesday 22 August	Arundel Town Hall	4pm to 8pm	Maltravers Street, Arundel, BN18 9AP
Thursday 31 August	Arundel Town Hall	2pm to 8pm	Maltravers Street, Arundel, BN18 9AP
Tuesday 5 September	Cathedral Centre	2pm to 8pm	London Road, Arundel, BN18 9AY
Saturday 9 September	The White Swan	10am to 2pm	16 Chichester Road, Arundel, BN18 0AD
Tuesday 19 September	Look & Sea Centre	2pm to 8pm	63-65 Surrey Street, Littlehampton, BN17 5AW
Wednesday 27 September	Littlehampton Town Council – Manor House	2pm to 8pm	Church Street, Littlehampton, BN17 5EW
Thursday 5 October	Fontwell Park Racecourse – Premier Grandstand	2pm to 8pm	Fontwell Avenue, Fontwell, Arundel, BN18 0SX
Saturday 14 October	Cathedral Centre	10am to 5pm	London Road, Arundel, BN18 9AY

Locations to collect consultation material

You can also find copies of the brochure and the questionnaire at the following locations throughout the consultation period (22 August to 16 October 2017) during their normal hours of opening:

Location	Address
Arundel Town Council	Arundel Town Hall, Maltravers Street, Arundel, BN18 9AP
Arundel Library	2 Surrey Wharf, Arundel, BN18 9DW
Littlehampton Library	Maltravers Road, Littlehampton, BN17 5NA
Angmering Library	Arundel Road, Angmering, Littlehampton, BN16 4JS
Rustington Library	Claigmar Road, Rustington, Littlehampton, BN16 2NL
East Preston Library	The Street, East Preston, Littlehampton, BN16 1JJ
Bognor Regis Library	69 London Road, Bognor Regis, PO21 1DE

You can also pick up a copy of the brochure and the questionnaire from West Sussex County Council's mobile library service at the following locations on the dates shown below:

Locations (Community Mobile 1 – Routes 3 and 4A)	Dates
West Worthing (Brooklyn Avenue), Findon (Village Green), Clapham (Church Close), Crossbush (Poor Clares Convent), Lyminster (Thornlea Park), Wick (Shopping Parade), Climping (Climping Park)	Wednesdays 30 August, 13 September, 27 September, 11 October
Fontwell (Shops), Slindon (Coronation Hall), Havenwood Park, Walberton (Village Hall), Barnham (Orchard Way), Eastergate (Village Hall), Westergate (Ivy Lane), Woodgate (Oak Tree Lane)	Thursdays 31 August, 14 September, 28 September, 12 October

For times, see: www.westsussex.gov.uk/libraries/using-library-services/mobile-libraries

Planning consent

The A27 Arundel Bypass scheme is defined as a *Nationally Significant Infrastructure Project (NSIP)* by the Planning Act 2008 due to the size of the project. To build an NSIP scheme we must obtain a *Development Consent Order (DCO)*. A DCO is a comprehensive type of planning permission, combined with powers necessary to develop complex infrastructure schemes, such as powers to buy land.

We will undertake a statutory public consultation then prepare and lodge the DCO application with the Planning Inspectorate, who will check and decide whether or not to accept the application. A pre-examination stage follows this, where the public will be able to register with the Planning Inspectorate and provide a written summary of their views on the application. The Planning Inspectorate then has 6 months to carry out the formal examination. During this stage, people who have registered will be invited to provide more detail of their views in writing.

The final decision on the scheme will be made by the Secretary of State for Transport, who will determine the DCO application with regard to:

- Any local impact reports submitted by the relevant local authority.
- How the application relates to planning policy eg policies contained in the *National Networks National Policy Statement (NNNPS)*. On page 31 we identified that each option is subject to a number of significant national planning policy challenges that could affect the likelihood of obtaining consent.
- Any other matters such as the impacts and benefits of the scheme, and any legal and international obligations.

If we do not obtain consent from the Secretary of State for Transport, then the scheme cannot be delivered.

More information is available via our *A27 Arundel Bypass: Planning Policy Summary* on our website (or available at our exhibition) or from the Planning Inspectorate website:

www.infrastructure.planninginspectorate.gov.uk

Your views are important

We would like to hear your views about the options presented based on your knowledge of the area. The consultation runs for 8 weeks from **22 August to 16 October 2017**.

How will we use the feedback?

Your response will help us to:

- Fully consider any potential impacts on the community and environment.
- Develop the options further before deciding on a final scheme design.
- Ensure the final Environmental Statement for the planning application considers impacts or mitigation measures that you have told us about, where appropriate.

What happens after the public consultation?

All responses and comments received during the public consultation will be considered and summarised in our Public Consultation Report, which will be submitted to the Department for Transport. We will also report on all the technical work done to date. Once the Secretary of State for Transport is convinced that there is a compelling case for the scheme and a suitable option, there will be a preferred route announcement (PRA).

Another opportunity to have your say

Following a preferred route announcement, we will develop detailed proposals. This will include further surveys and investigations to allow us to design the scheme in more detail.

There will be another opportunity to have your say during a statutory public consultation on the design of the preferred route.

Winter 2017/2018

Analysis of your feedback and that from our stakeholders and partners to produce a Public Consultation Report.

Winter 2017/2018

Publication of Public Consultation Report and preferred route announcement (PRA).

Spring 2018

Statement of Community Consultation (SoCC) will be published setting out the process for the statutory public consultation.

Spring 2018

Statutory public consultation on details of the preferred route.

2019

We will submit a Development Consent Order (DCO) planning application – required for all Nationally Significant Infrastructure Projects NSIPs.

2019 – 2020

The Planning Inspectorate will evaluate the scheme and Development Consent Order application.

2020

A recommendation will be given to the Government by the Planning Inspectorate. The Government will decide whether to give the scheme consent.

2020

Once planning consent is granted by the Government, construction will commence.

2023

New road will be fully open.

How to contact us:

You can use the following methods to respond to the consultation:

- Complete the questionnaire and send it to us at:
FREEPOST A27 ARUNDEL
- Complete the questionnaire online at:
www.highways.gov.uk/a27arundel

- Complete the questionnaire at a public consultation event.

If you have any questions, or would like the information in a different format, please contact us by:

- Email:
A27ArundelBypass@highwaysengland.co.uk
- Telephone: 0300 123 5000 (24 hours)



Annex A: Further information on history of A27 Arundel Bypass

Previous proposals to improve the A27 at Arundel have not been taken forward for financial and environmental reasons. The A27 Arundel Bypass has been included in the following studies:

Year	Report	Prepared for:
1985	Scheme Assessment Report	Department for Transport
2002	South Coast Multi-Modal Study (SoCoMMS)	Government Office for the South East
2013	A Route Strategy and Action Plan for the A27	West Sussex County Council
2015	A27 Corridor Feasibility Study	Department for Transport

Rejected options

The options that have been rejected, both historically and in our more recent work, are those that did not satisfactorily meet scheme objectives, would not be affordable or did not deliver any significant benefit for the cost. A series of maps⁷ illustrate the approximate routes of these previously rejected options.

Historic options 1985-2015

Three routes were outlined in the *Scheme Assessment Report* (1985) for public consultation in 1987 – the Purple, Red and Orange Routes (see [Figure 9](#)).

Description	Outcome
<p>Purple: This incorporated improvements to the existing A27 with a short diversion between Crossbush junction and Ford Road roundabout.</p> <p>Red: This option went from Crossbush junction west to Priory Lane before going north through Tortington Common/Binsted Woods to re-join the existing A27.</p> <p>Orange: This route ran directly from Crossbush junction west to join the existing A27 at Yapton Lane.</p>	<p>The Orange route gained the most support at consultation (followed by the Red route, with Purple gaining the least support), however none of the options were totally approved and modifications were suggested. In June 1989 the Orange route was announced as the preferred route by the Secretary of State for Transport.</p>

After the 1989 preferred route announcement there was still public demand for a modified Orange route and there was a public consultation in 1991 on the Modified Orange (Blue/Brown) amendments (see [Figure 10](#)).

Description	Outcome
<p>Blue: This route went further south than the Orange route before re-joining the Orange route south of Tortington Common.</p> <p>Brown: This directed further north from the edge of Binsted Woods and re-joined the existing A27 at the eastern end of Hundredhouse Copse.</p>	<p>During the public consultation, a more popular route emerged combining a 'modified Red route' from the 1987 consultation (known as the Pink Route) with the Blue Route to form the Pink/Blue Route. This is our Option 3.</p>

The Pink/Blue Route was subsequently announced as the preferred route in 1993 (see [Figure 11](#).)

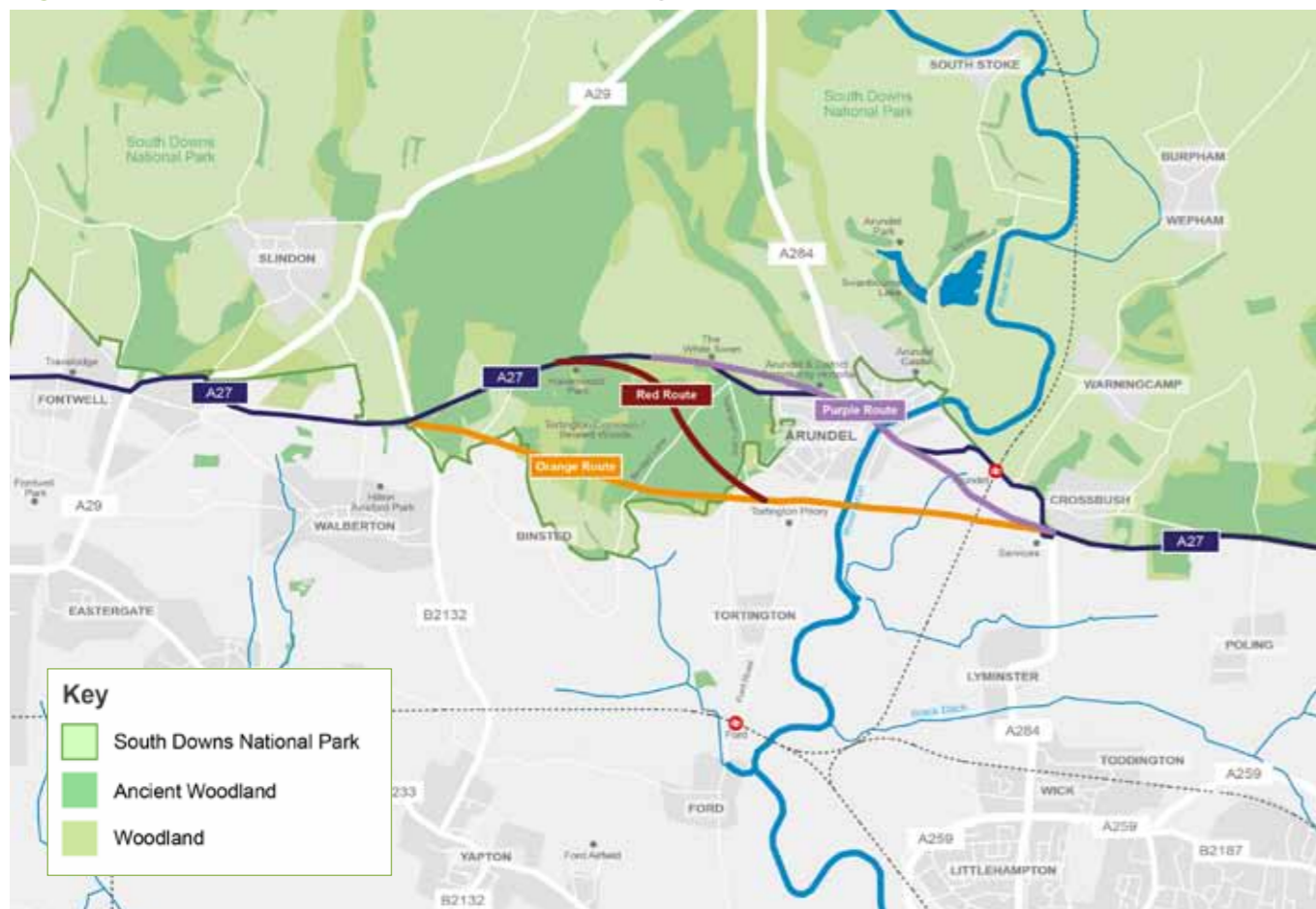
Description	Outcome
<p>Pink/Blue: From Crossbush junction, this would cross the railway and River Arun and pass over Ford Road at a new junction. The road curved westward before going north through Tortington Common/Binsted Woods then joining the existing A27 near Havenwood Park at a new flyover junction.</p>	<p>However, the Arundel Bypass Action Committee continued to oppose the Pink Route, which led to a range of Green route proposals.</p>
<p>Green (1): A further alternative to the Pink route. Included the provision of a fly-over roundabout junction on the existing A27 east of Hundredhouse Copse.</p>	<p>Rejected as the fly-over roundabout junction would not have been sufficient to meet the needs of long-term traffic demand.</p>
<p>Green (2): This route left the existing A27 at Hundredhouse Copse turning south-east and avoiding the main body of Binsted Woods/ Tortington Common.</p>	<p>Rejected on the grounds that it would encroach into Hundredhouse Copse, an area of high ecological and nature conservation importance.</p>
<p>Green (3): This route left the A27 at Hundredhouse Copse, passed through Furzefield Copse, and continued just inside the woodland edge to then go east to join the Blue route.</p>	<p>Rejected because it would pass close to an area of high nature conservation importance and require the demolition of dwellings.</p>
<p>Green (4): A modified version of Green (2) to avoid intrusion into Hundredhouse Copse.</p>	<p>Rejected due to having less support than the Pink/Blue route, as well as costing more, requiring more land and severing farmland north of Binsted.</p>

Following the *South Coast Multi-Modal Study (SoCoMMS)*, which recommended a new bypass be constructed around Arundel, in 2003 the Secretary of State for Transport cancelled the previous preferred route (Pink/Blue; our Option 3) and instructed that work on less environmentally damaging options should proceed. These other options together with the conclusions from the *Route Strategy and Action Plan* for the A27 have been considered as the starting point in developing our present options.

The *A27 Corridor Feasibility Study (2015)* reviewed the case for improvements on the A27 between Havant and Pevensey and assessed tunnelling as an option. The study confirmed that an improvement to the A27 at Arundel would provide significant congestion relief and economic benefit and should be re-examined.

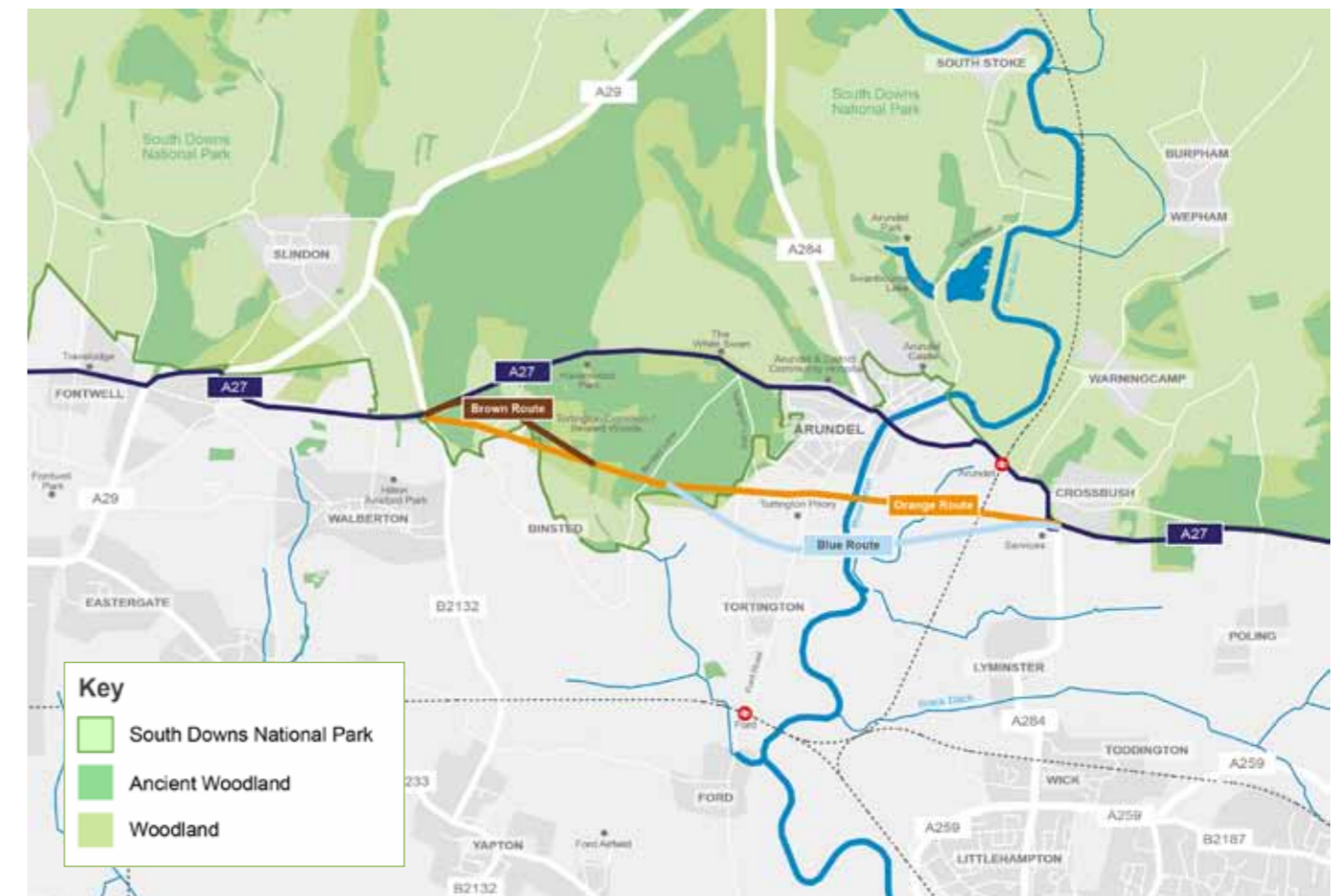
Description	Outcome
Tunnel on the existing A27 in place of a widened A27 on Hospital Hill (Chichester Road) in a cutting now proposed for our Option 1.	This was rejected due to cost estimate of £300-£350 million.

Figure 9: Scheme Assessment Report (1985) Orange, Red and Purple Routes



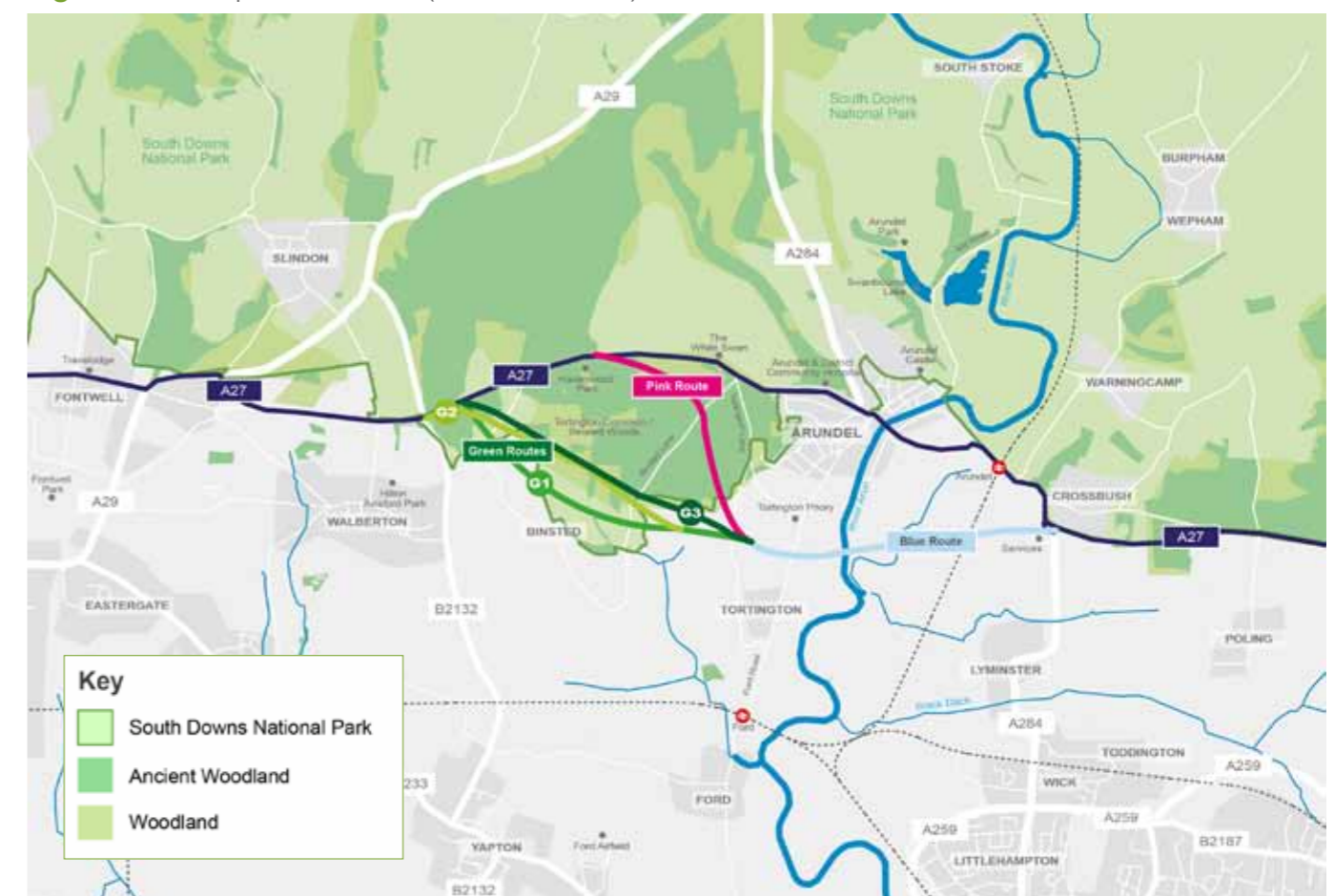
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Figure 10: 1991 consultation (amendments to Orange Route) Blue/Brown Routes



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Figure 11: 1993 preferred route (Pink/Blue Route) and discounted Green routes



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More recently discounted options 2015-2017

Our current study has investigated 5 options which have now been discounted (see Figure 12.)

Our early discarded options (2015-2016)

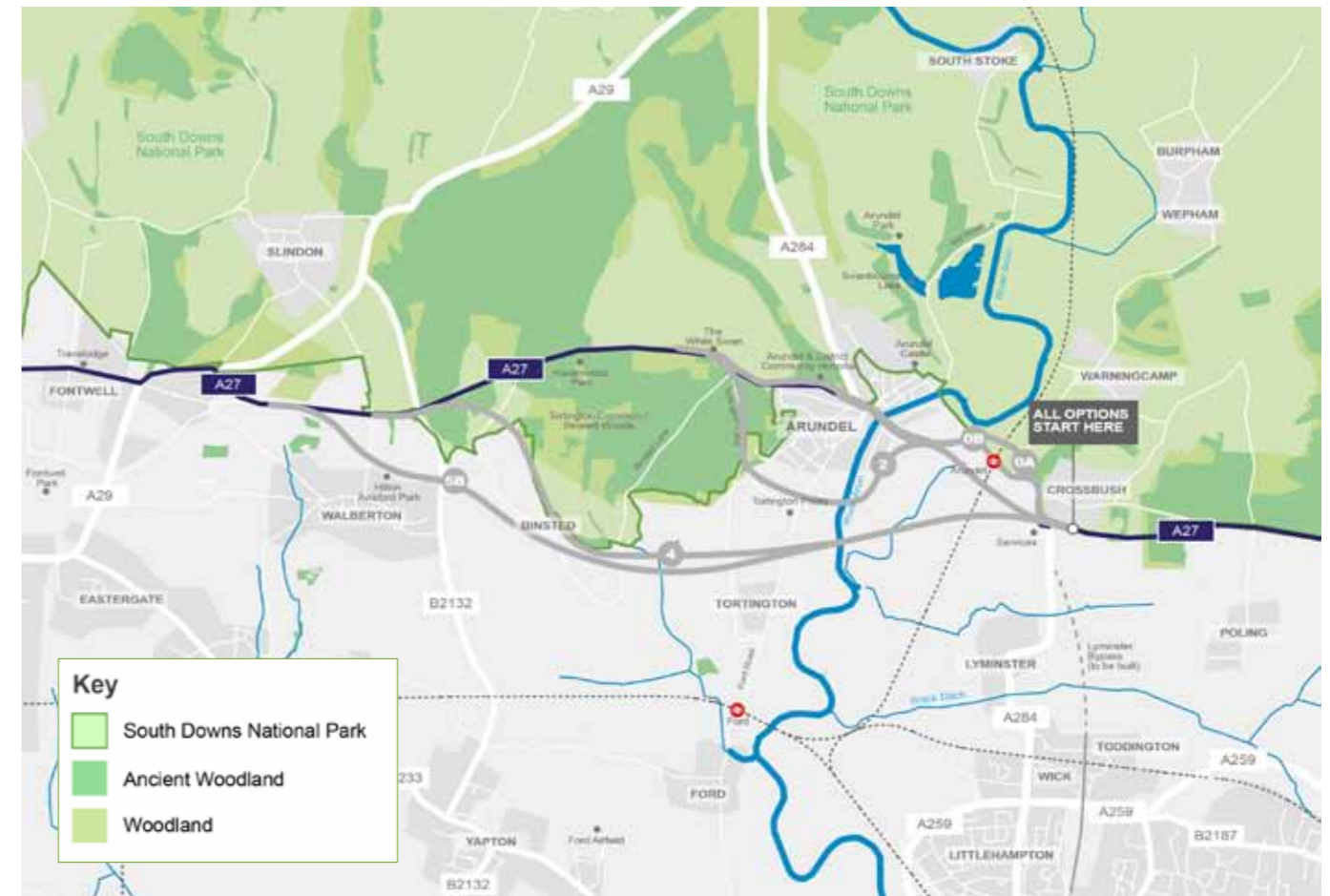
Description	Reason for rejection
Option 2: A bypass closer to the town of Arundel than Option 3.	Discounted because it would have come closer to the built up area of Arundel, creating noise and vibration impacts. The routing included sharp bends which would affect visibility, safety and journey times and extend the route length, subsequently not meeting the scheme objectives.
Option 4: Similar to Option 5A, but would be routed just outside the South Downs National Park boundary.	This option was discarded because it provided no additional benefit compared to more cost effective options that have been taken forward.

Our recently discarded options (2016-2017)

Description	Reason for rejection
Option 0A: Single carriageway road with improvements at Crossbush junction, Causeway roundabout and Ford Road roundabout.	Did not meet the scheme objectives (a dual carriageway is required to accommodate traffic now and in the future).
Option 0B: Upgrading the existing A27 to a narrow dual carriageway, while improving Crossbush junction, Causeway and Ford Road roundabouts.	The impact that widening would have (on properties and heritage sites).
Option 5B: Similar to Option 5A, but a longer route further south in order to avoid the South Downs National Park and Ancient Woodland completely.	Significantly exceeded the allocated budget, and provided less value for money than the options being consulted upon.

There has been some support locally for making the existing A27 a wide single lane carriageway; also known as the 'new Purple route'. We did not model this route because traffic flows in Arundel are too high for a single carriageway to be a viable long term solution.

Figure 12: More recently discounted options



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