

# Arundel Bypass

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## A Resident's alternative approach to Option 1

### **Introduction**

I am writing, as an independent resident of the town, to all the Town councillors, to express an opinion on the Bypass proposals and introduce you to an alternative approach to Option 1 that I feel strengthens the principle of the New Purple Route (proposed by The Arundel A27 Forum) and provides an opportunity to draw some civic pride in determining and expressing a more comprehensive solution than exists at present.

- The focus is on the existence of the A 27 Ford roundabout, that creates a physical, visual and in many ways a social barrier between the old town and the more recent, post war residential development, centred around Torton Hill.
- The roundabout was created (presumably), as part of the the Relief Road and the River Arun Bridge built in the 1970's, prior to which Maltravers Street led directly into Ford Road, beyond the junction with Surrey Street, as far back as the 19th century (refer to brown toned alignment on above plan).
- The newer houses along Torton Hill Road and Canada Road were built after the 2nd world war and so the importance of Ford Road was enhanced further as the primary means of access into the centre of the town, across a bridge over the stream that flowed down the valley from Park Bottom.
- This all changed when the roundabout was built, filling in the valley where the stream and a bridge existed originally, as can be witnessed by the height of the roundabout (in excess of 4m), above the level of the existing 'severed' stream (ie: just to the east of the two Lodges), linking the Trout farm lakes to the north west.
- All the current Bypass options assume that Ford Roundabout will be retained, although, its geometry under Option 1 will be amended slightly and signal operated, to raise the efficiency of the traffic flow.
- I believe that there is an opportunity within the Option 1 proposals to straighten the A27, along the natural line formed between A27 Chichester Road, (that used to form a junction with Ford Road at the Lodge) and onto the existing alignment of the bridge over the River Arun. This would remove the roundabout completely and as a consequence, it would provide a continuous free flowing route for the A27, assuming that the proposed works at Crossbush had been completed.

### **Existing A27 and other Proposals**

- The continuity of the A27 dual carriageway is reduced, as one approaches Chichester to the west and Shoreham to the east.

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- With 14 roundabouts, 5 signal operated junctions within this 27 mile stretch, with only two grade separated junctions, it does not represent a free flowing transportation corridor, compared to the section between Portsmouth and Eastleigh.
- Chichester and Worthing, both with existing 3 mile sections of the A27, are the two largest population centres, with the most significant cross flow traffic, between the two even larger cities, of Portsmouth and Brighton and yet the proposals for by-passing these two centres have never materialised, or been adopted in any rational sense.
- Chichester relies at present upon a series of approximately one kilometre sections of dual carriageway, linking five roundabouts and a signal controlled junction. The recent HE Chichester Bypass consultation proposals, capitalised upon the conversion into substantially free flowing grade separated junctions, allowing the existing established dual carriageway sections to function to full capacity. Since The HE proposals have been rejected, the opportunities for relieving congestion around Chichester appear to have disappeared, which has created uncertainty for the whole A27.
- Worthing in contrast retains its single carriageway route through the town, and the HE have now proposed only a very modest single carriageway proposal, which only attempts some betterment of a poor existing junction capacity. With numerous crossflow traffic junctions, it is difficult to provide any effective resolution of the traffic delays through this town.
- Over relatively short sections of road, in my view, it is the uncertainty of delay at junctions, that causes frustration and as with the existing Chichester situation, where roundabouts interrupt sections of short dual carriageway, the benefit of the additional capacity is lost, unless free flowing junctions are adopted, wherever possible.

### **Arundel Bottleneck**

Arundel is easier to resolve, since they are only two bottlenecks:

- The Causeway / Station Road access up to Crossbush has to be resolved and all three Options provide effectively the same solution, only the route direction alters.
- The Ford Road roundabout is not as easy, since its scale, especially for eastbound traffic, offers a significant diversion from the alignment of the A27 and a reduction in the speed of free flowing traffic. The proposal to amend the geometry and signal operate the roundabout will help, but traffic will still need to slow down and at times stop.
- Commuters suffer daily (over a relatively short section of road - 2.1 miles, once the Crossbush junction has been completed), from the uncertainty of the impact of junction delays and so a free flowing solution would make a significant difference to the journey along the A27, when passing Arundel, breaking the pattern of frustration of sitting in a stationary vehicle.
- The proposals, which have not been adopted so far at Chichester, point at last to the benefits of free flowing traffic, whereas Highways England appear to have accepted a single carriageway solution in Worthing.
- There is therefore a mixed message coming from Highways England, or a disparity in terms of available funding, between Chichester, Arundel and Worthing.

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- Of the three Bypass centres, Chichester and Worthing must be more significant and as a result deserve a larger share of the available funding, whereas the HE is seeking over twice the amount for Options 3 and 5A at Arundel than they are proposing at Worthing.
- A more sensible balance would be to save the £120 million in Arundel (ie: by not adopting Options 3 or 5A), accept the widening of the route, but only as a 10 metre wide single carriageway road (which is better than proposed at Worthing), then concentrate on both Crossbush and a free flowing solution at Ford Road.
- In the context of the issues of Social and Ecological damage, to Binsted and the areas of Woodland, this does appear to be a more equitable approach and the success of an only slightly wider and faster flowing A27, is much more likely to be achieved.

### **Traffic Pollution**

- The change from a roundabout to a free flowing junction will significantly reduce the queuing of stationary, or slow moving vehicles and will as a result reduce air pollution.
- The government has announced that no new petrol or diesel cars can be sold after 2040 (17 years after the projected Bypass completion) and so the motor industry is now under notice to change to full electric by that date (Volvo have already indicated their change by 2020). This will significantly reduce the accessibility to and cost of petrol and diesel fuel, within this period and second hand cars will inevitably become too expensive to run, with higher road tax in addition.
- The impact of pollution resulting from free flowing traffic through Arundel will therefore diminish considerably in the decade after it has been built.

### **Economy**

- It certainly is not clear that the choice of a remote 'Offline' Bypass, will in any way boost the economy of Arundel Town. The issues of remote passing trade, have to be balanced against the pull of Arundel Castle as a Destination, but small traders are very vulnerable to the implications of a reduction in passing traffic, that will not even have sight of Arundel Castle, or the Cathedral, before they decide to proceed past the junctions at Crossbush or at Walberton. However an 'Online' solution will ensure visible access to the town and an ability to make a decision in time.
- The impact on the regional economy, should be much more significant at Chichester and Worthing and given the fact that commuters will know in advance that Option 1 at Arundel, will be limited to 40mph and should easily accept a journey time of no greater than between one and one and a half minutes (compared to Options 3 or 5A at 70mph). For the foreseeable future Worthing is of much greater concern.
- The opportunities for growth, between Bognor Regis and Worthing, will not be affected by a slightly slower journey time at Arundel as all three options start and finish in the same place, so none of them provides any better direct means of access, to say Ford Airfield, for example.
- If however, under the example of new housing at Ford, it is assumed that developers will pay for a railway bridge at Ford Station, plus a grade separated junction, on the back of 1000, or 1500 new houses, then this masterplan should be explained more explicitly, since it is a matter of speculation

that such development will be feasible, or gain a suitable planning consent and so it is not now a possible sound basis for choosing one option over the other?

- It would seem more relevant and considerably more economic, to upgrade a network of existing and some new, 7.3m wide single carriageway links, plus new rail bridges, as and when required, between the A259 and the A 27, which would have considerably less spatial and ecological impact, than diverting the Bypass, to a position near Ford Station (without a junction), at great cost and personal loss to many people and the environment.

### **The Proposal at Ford Road.**

- The main reason for not adopting a grade separated junction, is normally one of cost and/or the local impact of scale on adjacent properties.
- The scale of the existing Ford Roundabout is such that provides a large area of land, in which an underpass could be formed and since there is approximately 190metres distance between the last house in Maltravers Street (No: 84) and the Lodge at the gateway into the cemetery on Ford Road, there is sufficient room to introduce gradients at 1 in 20 (5%), which are considerably shallower than the lower end of Maltravers Street (1 in 15) and the High Street (1 in 7).
- The principle of grade separation has been offered by the HE under the Chichester proposals and in places where the available space appears to be more challenging, than in this case.
- As indicated above, Ford Roundabout must have been built on made up land, since there is evidence of a valley, with a stream at its centre, crossing over the middle of the existing roundabout.
- The original severed stream, exists at both sides of the roundabout and the level of the water approximates to that of the average water level of the river (zero metres AOD), which fluctuates between +2.6m and -1.6m AOD, under high and low tides.
- There is therefore opportunity, to use the existing streams, in conjunction with additional water storage at a slightly lower level, adjacent to the underpass, so as to provide a drainage balancing function to an underpass route, that connects Ford Road to Maltravers Street directly, providing that same direct link, that existed so many years ago.
- The existing roads provide opportunities for spur links to and from the underpass and A27, without significant changes to their existing level, direction. or relationship to existing tarmac surface.
- There is an opportunity to remove the road alignment away from the western end of Wheelwrights Close and to create a quality landscape environment, utilising also the parallel body of water to the underpass road, which could perhaps attract ducks and geese similar to the environment they occupy along Mill Road, which could establish a softer and more significant gateway to this side of Arundel, as well as providing a more direct route for pedestrians and cyclists, between Torton Hill and the town centre.
- The level of the road is envisaged to rise at the point of intersection, by no more than 1.7metres whereas it would rise by approximately 0.8m at the point of access onto the Bridge over the River Arun. The impact of the height of the realigned A27 would therefore be minimal, yet the linear alignment would draw traffic away from the bottom of Maltravers Street and Wheelwrights Close,

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which should provide some reduction in noise level, especially since the proposed speed is 40mph and electric vehicles will be significantly quieter in the future.

- I propose this an alternative approach to that offered under Option 1 and within the principles outlined by the A27 Arundel Forum under their New Purple Route, other than in respect of the underpass proposal itself.
- It offers a significant advantage to the establishment of a free flowing traffic route and at 40mph will have little impact on the town, especially if the road capacity is limited to that of a 10 metre wide road, which along with the junction amendments, offers significant benefits to the commuter, to residents in the town and avoids the ecological impact that Options 3 and 5A will have on the meadows and Binsted Village and Historical Woodland.
- A significant benefit to Option 1 would be that the construction of the road could be phased in sections and the opening of the section would not be dependent on the completion of the whole road, from Crossbush to Yapton. This could allow Crossbush to be implemented much earlier than otherwise assumed.

The balance that this additional proposal seeks therefore to address, examines the need to maximise a consistent traffic flow, so as to minimise the impact of journey time, boosting the local and regional economies, within the constraints of scale, along an option route that preserves the natural environment of the South Downs National Park and the community of Binsted, whilst maximising the benefit and potential civic pride to the residents of Arundel.