A4173 / A46 Pitchcombe Junction
Frequently Asked Questions

Why are we altering the junction?
The junction has a long record of collisions and near misses and, whilst some works have been implemented to improve safety, it has remained an issue for the Local Parish Councils, residents and users alike. Thanks to Department for Transport funding, secured by Gloucestershire County Council, we are in a position to implement an appropriate improvement scheme.

What junction designs were considered?
Three options were reviewed:

- **Option 1** – Signalised junction
- **Option 2** - Give way T-junction with right turn lane (option being built)
- **Option 3** – Give way T-junction

- A roundabout option was not considered due to both the topography of the road and land purchase required, plus the likely cost (£1M+)

How were the options evaluated?

Traffic modelling was undertaken based on the traffic flows from a 2018 traffic count of the junction. Each of the options were then compared to the existing junction layout (standard national practice when reviewing junction alterations) to illustrate how each option would affect traffic movements. This enabled the most appropriate junction design to be progressed to improve safety for all users of the junction.

Why were the others discounted?

Option1 – Signalised junction.

This junction option was discounted because:

- It increased traffic queue lengths on all approaches compared to the exiting layout
- It would be close to 'saturation' levels (the term used when a junction design stops working effectively in dealing with traffic)
- Both existing bus stops on the A46 would need to be relocated, which would require land acquisition
- To accommodate Halfway Pitch junction as part of the signal layout, it would involve the junction layout moving northwards into the existing verge between the A4173 and A46. This

would require Geotechnical and drainage works due to the ground level differences between the A4173 and A46 carriageways and the existing ground levels (there is a significant level difference in this area).

- The above results in a very steep gradient for traffic on the A4173 turning left or right onto the A46 (gradient would be around 1:6)

- Traffic signal equipment would 'urbanise' this rural location

- Potential air quality and noise issues from vehicles stop-starting due to the signal operation

Option 3 - Give Way T-Junction

This junction option was discounted because:

- It may cause delays to A46 southbound 'through' traffic due to vehicles turning right onto the A4173 or Halfway Pitch stopping the flow

- Risk of 'shunt' type collisions for the same reasons as above

- Unlikely to reduce vehicle speeds through the junction as no traffic islands on the approaches to visually narrow the carriageway

What are the benefits of the scheme being progressed?

Option 2 – Give Way T-Junction with Right Turn Lane on the A46

- This option simplifies the existing junction layout, making it safer and easier to manoeuvre through. The dedicated right turn lane for A46 traffic turning right onto the A4173 or Halfway Pitch will be a significant improvement over the existing layout and also ensure vehicles continuing towards Stroud are not hindered.

- By removing the 'slip' road for A46-A4173 northbound traffic and ensuring vehicles have to make a left turn similar to a T-junction, vehicle speeds will reduce

- The environmental impact (noise and pollution) is reduced compared to Option 1

- This design retains the two existing bus stops and includes improvements to the layout of the northbound one along with the addition of a new shelter

- No geotechnical issues as this design largely remains within the existing highway layout

- Improves visibility for vehicles exiting Halfway Pitch towards Stroud (improves from the existing 45 metre visibility to 120 metres)

- Traffic queues will be less than for Option 1.

- Junction saturation will be less than for Option 1.

- Allows kerbed traffic islands with bollards to be installed to help reduce vehicle speeds through the junction, along with a pedestrian refuge to access the Stroud-bound bus stop for Pitchcombe residents

- Allows the provision of new footways to improve access for Pitchcombe residents to both bus stops

- Ultimately there is an improvement to safety for all users without increasing congestion at the junction for through traffic

Why is the current speed limit not being reduced as part of this scheme?

- An initial speed limit review meeting was held with multi-agency involvement, which concluded that whilst some speed data was available for the area, there were some concerns over the locations, and also the condition of the carriageway surface (pre-resurfacing works) possibly influencing the data.

- It was therefore decided to organise further speed data collection (post re-surfacing), especially as the speed limit reduction request was over a larger area than the current speed limit extents, and what was originally consulted upon.

- Speed data has now been collected for 3 points along the A4173.

- With respect to the A46, speed data will now be collected shortly, on the approaches to the current junction.

- Given the proposed changes to the junction, once the new layout has been built and traffic has had some time to adjust to using it, further speed data will be taken on the A46 (at the same locations). This will provide a good, consistent range of data to enable a robust speed limit review to be undertaken.

When will the scheme be constructed?

- Spring 2019

How long will it take to construct?

- Approximately 12 Weeks

What Traffic Management will be used?

- Temporary traffic signals will be used for the duration of the scheme, up until the carriageway surfacing which will be undertaken at night as it will require a road closure. This element is anticipated to take 2-3 nights.

- Appropriate information signs will be erected well in advance of the works and a Communications Strategy will be in place, to inform residents and road users and try to reduce any disruption as much as possible.