

TRAFFIC & NETWORK MANAGEMENT

**A350 Dual carriageway north of
Chippenham**

Safety of central reserve crossovers

Document Control Sheet

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Report Title: Safety of central reserve crossovers

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1.0 Introduction and background

- 1.1 Following a fatal collision on the 29th July 2010 at the central reserve crossover adjacent to the property known as Pretty Chimneys, concerns have been raised about the safety of all the crossover points. At the court case in connection with the fatal collision the Police recommended that Wiltshire Council undertake a review of the need for the central reserve crossing points.
- 1.2 Options to be considered include maintaining the crossing points as they are, prohibiting U turn movements through signing, and completely closing the crossing points.
- 1.3 The length of A350 Dual carriageway under consideration runs from The Plough Crossroads up to the M4 Motorway junction. Within this length there are five vehicle crossovers that give access to residential and farm properties and four that cater for agricultural field access. In addition there is a crossover at the side road junction with Days Lane which is a standard T junction access onto the dual carriageway.

2.0 Collision history

- 2.1 An investigation of the Police collision database that holds details of all collisions in the County having been recorded as involving personal injury has been undertaken. It is important to note that damage only collisions are not recorded on the database. In order to gain a long term picture of the collisions the investigation has looked at the latest 10 year period up to the end of October 2011 rather than the normal three year period.
- 2.2 The table below sets out the summary data at the residential and farm access crossovers in the last 10 years. The data includes the most recent fatality at Pretty Chimneys.

Table 1: 10 year collision history

Location	No of collisions	Severity / Casualties	Involving U turn
The Moors	0	n/a	0
Courtfields	0	n/a	0
Pretty Chimneys south	3	3 serious 2 slight	2
Pretty Chimneys north	1	1 Fatal 2 Serious 3 slight	1
Lower Swinley Farm	2	1 slight 1 fatal	0

- 2.3 A plan showing the above crossover locations can be found at Appendix A
- 2.4 In summary there have been six recorded collisions at the residential and farm crossovers in the last 10 years of which three have involved U turning manoeuvres. This reduces to two collisions with one involving a U turn manoeuvre in the latest three year period. At Pretty Chimneys south one of the collisions involved a northbound out of control vehicle passing through the central reserve gap and being in collision with a vehicle on the southbound carriageway. It should be noted that there are no recorded collisions involving vehicles using the crossovers to access the residential and farm properties.
- 2.5 No collisions are recorded at any of the four agricultural crossovers in the last 10 years.

- 2.6 At the Days Lane junction there have been six recorded collisions in the last 10 years of which two have involved southbound U turning manoeuvres. There have been no recorded collisions at this location during the latest three year period.
- 2.7 The Council's adopted intervention criteria for safety schemes requires that a location has to have a minimum of three recorded personal injury collisions in the latest three year period to qualify for remedial action. None of the crossovers or the Days Lane junction meet this criteria.

3.0 Possible measures

- 3.1 In view of the particular type of incident occurring and since the Council's adopted criteria for safety schemes are not met, any intervention measures identified should be commensurate with the low overall collision rate. Therefore substantive physical alteration of the highway infrastructure has not been considered as a potential solution.
- 3.2 Within the Police traffic management report presented at the Court case, a recommendation was made to review the need for the crossing points and that they be closed if they are deemed to be no longer necessary. A further recommendation was made that regardless of the result of the review, consideration should be given to prohibiting U turns at all the crossing points.
- 3.3 Prohibiting U turns can be achieved through the promotion of a suitable Traffic Regulation Order. To give effect to the Order signs are provided displaying the no U turn symbol. Signs can be provided at the commencement point of the prohibition with a distance plate indicating the length of the prohibition or at each of the individual crossing points. In either case the signs would be required to be positioned on the nearside verge and in the central reserve. A prohibition of U turn would not prevent the continued use of the crossovers for right turn manoeuvres. A prohibition of U turn can be recommended in either or both the north and southbound directions
- 3.4 It should be noted that enforcement of this type of prohibition would be a matter for the Police who would have to witness the offence taking place before being able to take action.
- 3.5 The complete closure of the crossovers could also be achieved by the promotion of a suitable Traffic Regulation Order which would prohibit all types of turn manoeuvre. This would then allow the physical closure of the crossovers. Gaps for pedestrian use could be provided if this is deemed necessary.
- 3.6 It would be possible to close some of the crossovers whilst maintaining others with or without restrictions.
- 3.7 Whichever approach is followed the Traffic Regulation Order process would give residents and others the opportunity to formally comment on the proposals and no guarantee can be given that the advertised proposals can be achieved.

4.0 Residents and Parish Council's views

- 4.1 In order to fully inform this review the views of local residents and the two Parish Council's affected have been sought. There are eleven residential properties that have direct access along this length of the A350. Each of these was invited to submit their comments. Seven written and one telephone response have been received from residents. In addition a response has been received from Kington Langley Parish Council. No response has been received from Kington St Michael Parish Council
- 4.2 A summary of all the comments received are set out in Appendix B.

5.0 Consideration

- 5.1 It is clear from the comments received that the residents and Kington Langley Parish Council do not support the full closure of the central reserve crossovers. They feel that the problems at the crossovers are not caused by the residents themselves but by other motorists and their inappropriate behaviour. The residents have great concern over the additional distance, time, and cost that they would incur in having to travel to either end of the dual carriageway in order to turn to gain access to their properties. Furthermore a number of residents claim that turning left off the dual carriageway into their properties is more hazardous than turning right across the central reserve due to the speed and behaviour of following drivers.
- 5.2 If closure of the crossovers is not pursued then a prohibition of U turn could be considered. It should be noted that a U turn prohibition would still allow a 90 degree right turn to take place. Taking each of the crossovers in turn it is possible to assess the impact of a U turn prohibition on each of the residential properties and other road users.

Table 2: Impact of U turn prohibition

Crossover location	Central reserve deceleration lane	Property served	Impact on property	Impact on other road users	Comments
The Moors	Yes	The Moors (southern entrance)	None	High	Diversion for other users would be required
Courtfield Farm	Yes	Courtfield Farm	None	None	
		1 Raglan Cottage	None	None	No 1 has an entrance onto the Courtfield Farm access track
		3 Raglan Cottage	High	High	Diversion would be required
		The Moors (northern entrance)	High	High	Diversion would be required
		Southbound layby	None	High	Diversion for other users would be required
Pretty Chimneys North and south	No	Hillside Farm	High	High	See para 5.3 below
		Hillside Bungalow	High	High	See para 5.3 below S
		1 Pretty Chimneys	High	High	See para 5.3 below

		2 Pretty Chimneys	High	High	See para 5.3 below
		Trade Winds	High	High	See para 5.3 below
Lower Swinley	Yes	Lower Swinley Farm	None	High	Diversion for other users would be required
		Hill View	None	High	Diversion for other users would be required

Pretty Chimneys

- 5.3 It should be noted that at Pretty Chimneys it is observed that access and egress from the residential properties is achieved by use of the nearside laybys as no deceleration lanes are provided in the central reserve. Residents and their visitors travel along the laybys and then carry out a turn manoeuvre through the crossovers. It is not possible for residents to undertake a 90 degree turn to gain direct access or egress. Clarification from the Police has been sought and their view is that the manoeuvres currently taking place constitute a U turn. The introduction of a prohibition of U turn in both directions would prevent this movement and residents and their visitors would have to take an alternative route. The effect of a U turn prohibition at Pretty Chimneys would be to replicate a closure. The options at Pretty Chimneys can therefore be considered to be 'do nothing' or a closure.

Agricultural crossovers

- 5.4 None of the agricultural crossovers are provided with deceleration or acceleration lanes either on the nearside or in the central reserve. Visually they are low key in nature and there is no evidence that they are used by passing motorists to affect turn movements. The frequency of use by agricultural machinery is not known but is considered to be low. Given that no recorded collisions have occurred in the latest 10 year period it is not considered that closure of these crossovers is desirable given this would mean the diversion of slow moving agricultural machinery along the length of the dual carriageway which in itself could be considered to be a hazard.
- 5.5 There is however some concern that if closures or prohibitions are introduced onto the residential crossovers then some motorists may start to use the agricultural crossovers to affect a turn movement. It would therefore be sensible to include the agricultural crossovers in any prohibition of U turn order promoted although it is not considered that they would require individual signing.

Days Lane junction

- 5.6 The reducing collision trend at the Days Lane junction would indicate that no action is required. However it is noted that signs indicating the junction and the point of turn are provided for northbound motorists on the A350. Given the lack of a central

reserve deceleration lane for right turning traffic it would be sensible to replace the existing signs with those indicating that motorists should proceed north around junction 17 then south and turn left to achieve entry into Days Lane.

Southbound Layby

- 5.7 A number of concerns have been raised by local residents about the condition and use of the southbound layby located to the south of Raglan Cottages. Whilst the use and condition of the layby are outside the scope of this report the concerns have been brought to the attention of the Environmental Health team with a request that they report their findings to those residents who have raised a concern.
- 5.8 Of direct interest to this report is the use of the Courtfield Farm crossover by northbound HGV's to affect a U turn to gain entry to the layby. This movement would be stopped by the closure of the crossover or the introduction of a prohibition of U turn. It would also appear desirable to encourage lorry drivers to make use of the official truck stop facilities located off of junction 17 rather than use the layby. This could be achieved by the provision of additional signing on the northbound carriageway indicating the presence of the junction 17 truck stop.

Speed Limits and observance of the limits

- 5.9 It has been suggested that the introduction of lower speed limits would help. As part of the overall review of speed limits on all A and B class roads in the County undertaken in 2009, the A350 dual carriageway was assessed against the adopted criteria and no change from the current 50mph and 70mph limits was recommended. Whilst there is an understandable desire to see a lower level of limit introduced a lower limit would only be successful if motorists then adhered to that limit. There is concern that motorists would not adhere to a lower limit given the characteristics of the road and the environment that it passes through. Department for Transport Circular 01/06 Setting Local Speed Limits states that 'if a speed limit is set in isolation, or is unrealistically low, it is likely to be ineffective and lead to disrespect for the speed limit. As well as requiring significant, and avoidable, enforcement costs, this may also result in substantial numbers of drivers continuing to travel at unacceptable speeds, thus increasing the risk of collisions and injuries'.

Police view

- 5.10 During preparation of this report the recommendations have been discussed further with the Police. They have confirmed that they support the recommended proposals as set out below.

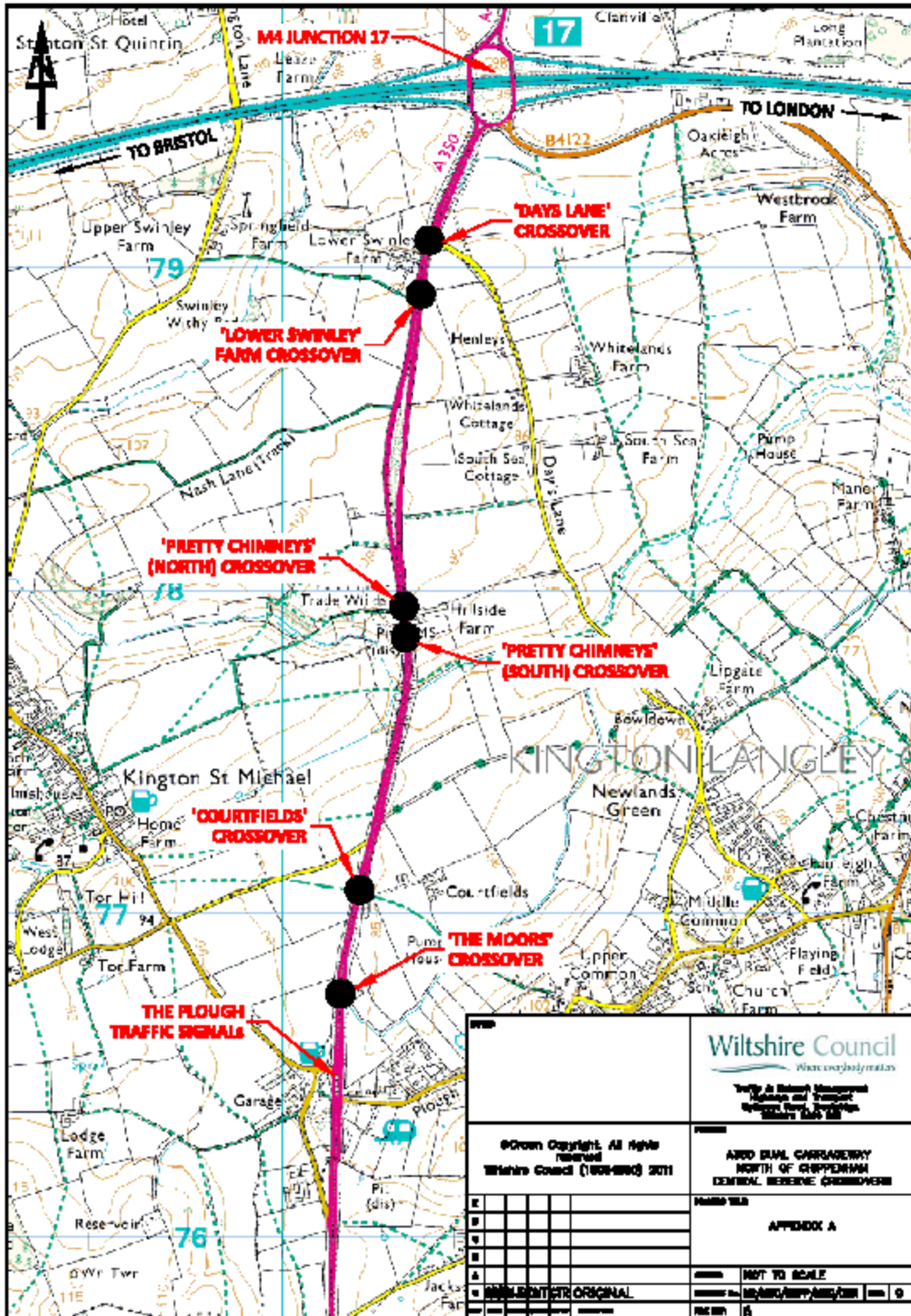
6.0 Recommendation

6.1 After due consideration of the collision history, the Council's adopted intervention criteria, and the views expressed by residents and the Police the following recommendations are made;

- 1: That the closure of the Pretty Chimneys crossovers be progressed.
- 2: That prohibition of U turns in both directions at The Moors, Courtfield Farm, Lower Swinley and the agricultural crossings be progressed.
- 3: That the additional signing at the Days Lane junction and for the junction 17 truck stop be progressed.

6.2 It should be noted that recommendations 1 and 2 above will require the promotion of a Traffic Regulation Order. This process will allow residents and others the opportunity to comment on the proposals. The final decision on whether the advertised proposals are implemented rests with the Council's Cabinet Portfolio holder for Highways.

Location Plan of residential and farm access crossover points



Resident and Parish Council comments

Resident / Parish Council	Comment reference
Mr & Mrs G Tayler The Moors	A, B, C, D, E, F, G, H, I, J
Mr D Bye 1 Raglan Cottage	B, D, E, K, L, M, N, O
Mr T Hewlett Courtfield Farm House	A, B, D, E, P, Q, R
Mrs S Newton Hillside Farm & Hillside Bungalow	C, F, G, S
Mr J Herbert (Jnr) Hillview	A, D
Mr J A Herbert Lower Swinley Farm	A, C, H
Mr O Tayler and Miss A Pegler 3 Raglan Cottage	B, D, I, M, N, T
Kington Langley Parish Council	C, E, F, G, S, R

Comment summary

- A. Our crossovers have deceleration lanes in the central reserve. This has proved to be successful and safe.
- B. It is more hazardous to turn left into our premises due to the speed of following vehicles and the turning circle of larger vehicles requires them to use both lanes to make the turn.
- C. The number of slow moving vehicles on the dual carriageway would increase if they had to turn at the M4 roundabout increasing the hazard to all motorists and the number of accidents.
- D. Diversion to the M4 roundabout would increase journey time and length, cost us more, use more fuel, and is not environmentally friendly.
- E. Speed on the dual carriageway is too high, a lower limit is needed. 50mph is suggested with 40mph past residential property.
- F. If the crossovers are closed it will result in higher speeds on the dual carriageway
- G. Closure of the crossovers will cause a delay to the emergency services when they need to get to us.
- H. Closing the access to commercial property will jeopardise their income.
- I. Suggests closing the large layby on the southbound carriageway.
- J. Suggests better signs, rumble strips, and flashing signs to help maintain lower speeds if the speed limit is lowered.
- K. Does not support the closure of the crossovers.
- L. Closing the crossovers will not eliminate accidents.
- M. Concern about northbound lorries U turning at the crossovers to gain access to the large southbound layby often for overnight stops.
- N. General concerns about the use of the large southbound layby, damage to its verges, standing water etc. Considers the layby to be an environmental hazard and that it should be closed particularly as a truck stop exists nearby off of Junction 17.
- O. Suggests ban on U turning lorries.
- P. Collisions on the dual carriageway are all to do with speed and driver behaviour. Not the residents or the use of the crossovers.
- Q. Supports closing the crossovers that do not serve residential properties.
- R. Supports a U turn ban but recognises it will impact negatively on some residents.
- S. Concern that closing the crossovers will prevent pedestrians from crossing.
- T. Suggests signing of residential access points.