MOSS NAYLOR YOUNG

B3153 Lydford-on-Fosse through Alford to Clanville, Somerset - Traffic & Highway Report

Annexe A - Alford

Change Table:

Report	Version	Date Issue	Notes
MNY17-15 Part 2	0	01/01/19	Original report
MNY17-15 Annexe A	1.0	01/11/19	Document restructured to enable use by wider range of stakeholders – text amended in line with restructuring.
	1.1	4/11/19	Minor corrections

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1. INTRODUCTION

General

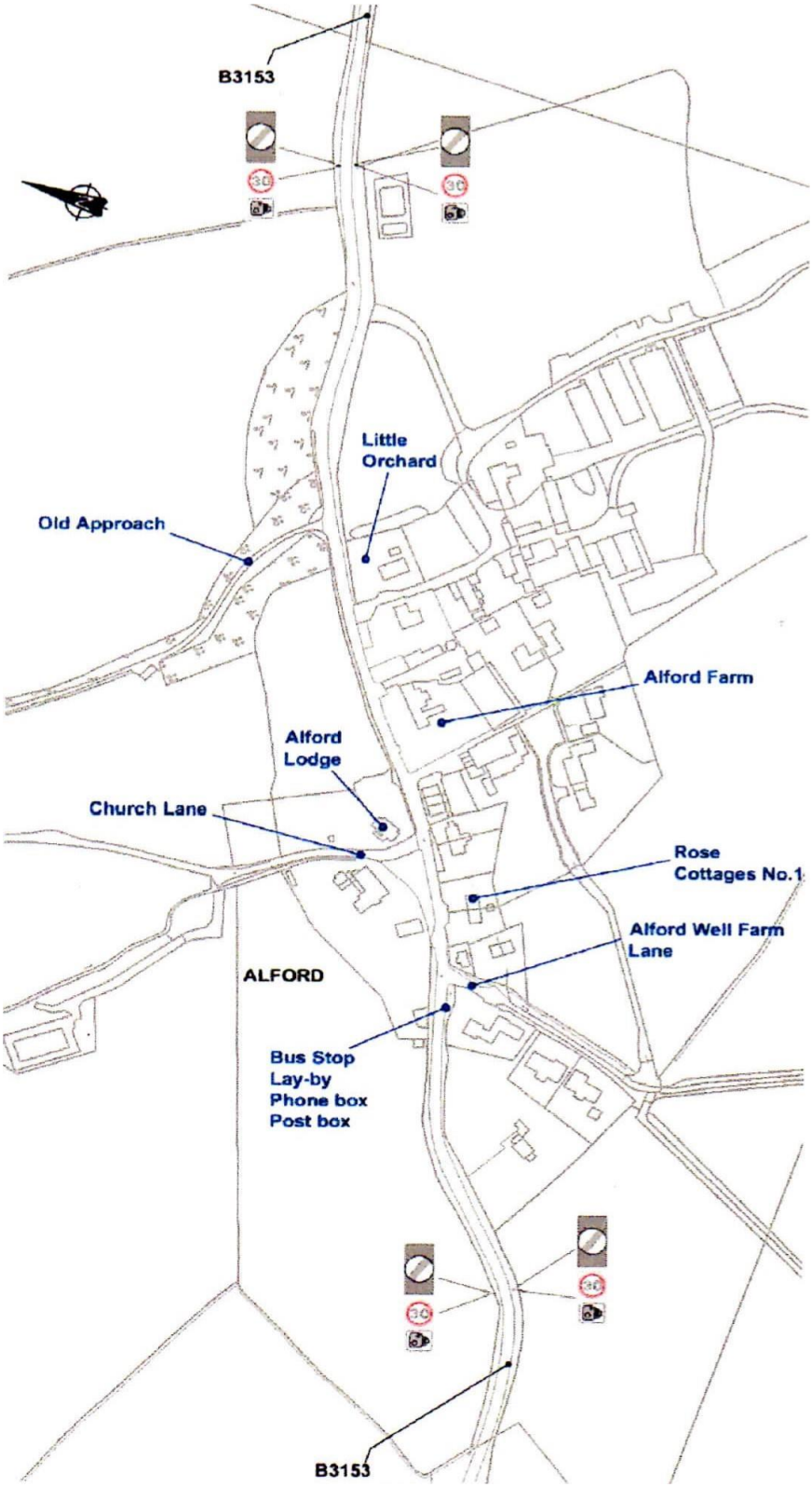
Annexe A of this report, has as its main purpose to consider specific proposals to improve the corridor of the B3153 and reduce the impact of the traffic it carries through the village of Alford. The Alford Traffic Working Group asked Moss Naylor Young to look into what can be done to ameliorate the various negative impacts of the road and its traffic on the local community.

Existing Situation

The B3153 is a narrow, two-way single carriageway, a mature road between the A37 at Lydford-on-Fosse and the A371 at Clanville/ Ansford. It is subject to national speed limits (e.g. 60mph for cars, 50mph for vans and HGVs) where not passing through villages. It has a poor geometry being narrow, frequently without margins, having poor junction alignments, having only occasional short footways and with poor junction and forward visibility in places. It passes through some very rural settlements: East Lydford, Lovington, Alford, and Clanville where there are 30 mph speed limits.

Provision for pedestrians is in the main lacking, but occasionally poorly provided with only short, isolated sections of footway on only one side of the road. There are few bus services along the route, accessed at minimally provided bus stops or simply by a bus pulling up in the road with no provision for passengers waiting to ride. Two-way traffic flows amount to a few thousand vehicles per day, compared to most other roads a high proportion of vehicles using the route are large or heavy goods vehicles. When combined with speeding vehicles (see later data) these conditions combine to create a danger to Alford residents and a loss of amenity in the area.

As a result, people living and working along the route are only too familiar with the menace of overly fast traffic appearing with too little notice. Passing traffic is intimidating, people are deterred from walking, even to visit nearby family or neighbours. HGVs or large towing combinations in opposing directions that meet may have to reverse first to then pass each other with the difficulties, delay and disruption to other road users that entails. Poor junctions such as that of Church Lane with the main road in Alford may be considered of relatively minor interest to the Local Highway Authority but using it is a daily risk to be taken by those that live off the side road.



Plan 1: Alford Village (from Parsons Brinckerhoff speed management report)

2. ISSUES IDENTIFIED

General

The B3153 Lydford-on-Fosse through Alford to Clanville, Somerset– Traffic and Highway Report examined in detail the strategic issues identified which arise from the current status of the B3153 as a whole and touches on the local effects felt in the village of Alford.

This Annexe examines in more detail the specific problems within the village of Alford, which are highlighted in the photographs below and which manifest themselves in the following:

HGVs - From the traffic flow figures in the main report it can be seen that, whilst 80% of traffic is motorcycles and cars/ light vans some with trailers, some 20% of traffic is larger and more dominating on the road. Almost half of these larger/heavier vehicles (8+% of the total volume) are rigid and heavy vehicles, one in twelve on the road. This is a significantly high proportion of HGVs, four times the national average (Source: *Road Traffic Estimates: Great Britain 2016,* https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2016), and one of the highest proportions of HGVs on roads in Somerset (Source: *Somerset Traffic Data 2016,* http://www.somerset.gov.uk/roads-parking-and-transport/working-on-the-road/transport-survey-information/.)

Speeding Traffic - Despite the 30 mph signs, speeding traffic is prevalent, in particular light vehicles, vans and cars. The recent survey commissioned by MNY show a 3 mph (nearly 10%) increase in the Average 85%ile speeds of vehicles travelling through the village in the past 3 years.

Pinch Point - A pinch point 5.2m wide exists in the village centre where there is not sufficient width for two trucks to pass. Here trucks regularly stop and reverse to manoeuvre past each other;

Noise and vibration pollution – People living in houses and using other buildings either hard against the road or close by are affected by noise, vibration and pollution;

Blind exits – There is almost no visibility to the right for vehicles turning out of Church Lane onto the main road;

Pedestrian Safety - The pedestrian footpath is narrow, overgrown and discontinuous. The bus stop, post box and village notice board are located at the west end of the village and are inaccessible on foot without walking in the live carriageway. The B3153 is narrow through the whole village, just about wide enough for two lorries to pass on most of the length.

Kerb / verge damage – Caused generally by vehicles having to swerve to the side as a result of approaching vehicles coming the other way at pinch points too quickly.

Image 1: Buildings close to the road in Alford

Houses and other buildings either hard against the road or close by and their occupants are affected by noise, vibration and pollution.

Image 2: Pinchpoint in Alford. Note the lorry is straddling the centre line

A pinch point 5.2m wide exists in the village centre where there is not sufficient width for two trucks to pass. Here we regularly have trucks backing up to manoeuvre past each other.

Image 3: Pinchpoint in Alford. The red tanker is over the centre line and the oncoming vehicle cannot pass

Image 4: Driver's view right from Church Lane

The image 4 depicts a driver's view from the give way position. This junction is considered dangerous as a number of vehicle damage accidents have already occurred here. There have not been any recorded injury

accidents here, but people who live in the village and pass it or use it regularly fear that the inevitable is surely only a matter of time.

Image 5: Pedestrian footway in Alford, where it exists, is narrow, overgrown and discontinuous.

Image 6: Lack of footway towards phone box

The bus stop, post box and village notice board are located at the west end of the village and are accessible on foot by taking the risk of walking in the carriageway along with mixed live traffic.

Image 7: Damage to the verge in Alford caused by large vehicles passing each other

Curb/verge damage – caused generally by vehicles having to swerve to one side as the result of oncoming traffic too quickly at pinch points.

Accidents

Road traffic collisions have been looked at using CrashMap, an online tool that allows us to find out information about road traffic crashes on Britain's roads. This is based on official Government data that has been processed to make it much more accessible to members of the public. The statistics relate only to personal injury accidents on public roads that are reported to the police, and subsequently recorded, using the STATS19 accident reporting form. The data on the B3153 in the study area is initially recorded in Somerset by Avon and Somerset Police then passed to Somerset County Council for cleansing, mapping and ongoing analysis. The files provide detailed road safety data about the circumstances of personal injury road accidents in Great Britain from 1979, the types (including make and model) of vehicles involved and the consequential casualties.

In the five years 2013 to 2017 inclusive there have been up to 11 injury crashes along the B3153 from the junction with the A37 at Lydford-on-Fosse to the junction at Ansford with the A371. There were only 5 injury collisions along the route itself, 4 at the westernmost terminal junctions with the A37 and 2 at the easternmost end at Ansford. Some collisions at the junctions may only have involved vehicles on the A-roads themselves. Most collisions do take place at junctions, so this pattern is not remarkable, collisions along highway links can have all sorts of causes. The collisions along the route were all slight injury crashes and were spread approximately one each year. Within Alford itself, despite the experience of local users of the Church Lane junction, as described by the team commissioning this report, there was only one injury crash recorded which involved one vehicle and resulted in one casualty.

Further information on the crashes along the route could be purchased but is unlikely to be of much benefit for the purposes of this report. There will doubtless have been other damage only collisions, but this is the case everywhere. Statistically speaking the ratio of damage only collisions to injury collisions that occur is usually higher in urban areas than in rural areas. These are the types of factors the County Council consider when assigning resource to a location such as Alford.

That public bodies focus on injury collisions does not however take away from anyone involved the personal experience of a crash: the emotional impact, delay and inconvenience, cost and ongoing commitments to vehicle recovery and repair. Some damage only crashes are 'near miss' injury collisions which could have had worse outcomes in slightly different circumstances. If local people wish to record these, they can be analysed for patterns and potential preventative measures. For example, it was reported anecdotally to MNY that there are frequent near misses as drivers emerge from Church Lane because visibility to the right is severely restricted by the hedged boundary of the property. Having looked at the junction there are three key problems:

Visibility is extremely restricted for emerging drivers, although there is not a STOP sign there.

Drivers approaching the junction on their near side have very little warning or awareness that they are approaching a junction and should to see vehicles emerging from it. They have recently passed the village entry gateway telling them to reduce their speeds to under and up to 30mph and are then negotiating a pair of switch-back bends. As vehicles pass two drivers are usually taking care; should one be unable to see clearly or perhaps inattentive the other may be able to take avoiding action; however, if neither driver can see the other vehicle collisions are much more likely.

Finally, traffic flow is relatively low both along the main road and into and out of Church Lane. This means that the chances of collision are lower than compared to busier junctions. However, it also means that even drivers who use the route frequently may not be very aware of the junction and therefore not on the lookout for vehicles emerging, so on approach may not adjust their speed in line with the potential hazard ahead.

3. SOLUTIONS

Range and Scale of Solutions

There are many things that would make the B3153 a better space for those who live and work along it, or a better highway for those who use it as a way. Some are static changes – engineering to change geometry for instance. Some are dynamic, more about behavioural choices: how and when goods and materials are transported, which alternative routes may be used. Some are complementary, but some would improve one and cause detriment to the other. From engineered highway improvements to behavioural changes, the corridor can be improved, traffic using it may be influenced, the village spaces may be reclaimed for more use by people out of vehicles.

The Alford Traffic Working Group asked that the problems identified above be separated into strategic and tactical issues. These approaches throw up differing sets of objectives and a slightly different approach to their resolution. The strategic view, which is covered in the main report, looks at a series of measures that can be put in place to attempt to reduce the volume and size of traffic along the B3153 as a whole, whereas for the tactical view MNY were asked to look at what, if anything, can be done in Alford to reduce the speed of the traffic and deliver a safer environment.

Tactical Solutions

The following section looks at any measures that might be taken within Alford to reduce the speed of the traffic and deliver a safer environment, including:

Traffic signals;
Street Lighting;
Vehicle activated signs / Speed Indicator Devices;
Traffic calming – humps, cushions, chicanes and narrowings;
White lining and signing (traffic management measures);
Improvement of pedestrian access and Enhancing pedestrian safety;
Measures for community involvement;
Measures for the Local Highways Authority / Somerset County Council to consider.

Traffic Signals

Within Lovington there is a set of traffic signals that controls access and manages movement through a narrow section of road. However, such solutions are not favoured now, if the Lovington signals were not already present it is doubtful they would now be installed. Aside from the capital cost there is an ongoing annual monitoring and maintenance cost - the M&E costs for signals are of the order of £45,000 per stop line, plus annual maintenance.) In highway management traffic signals would be seen as a solution of last resort and only used if a safe layout could be achieved. Given the poor geometry of the B3153, lack of street lighting, and the number of accesses and side roads which would all have to be signalled individually it is not at all likely that the County Council would agree to their installation.

Street Lighting

It is increasingly difficult to get approval for street lighting. Costs are not insignificant, £1600 per column including lantern and £100 per metre for cable to serve the column. A new system on a new development costs £2,500-£3,000 per column, before the cost of getting all the consents in place. Retrofitting in a rural village would be even more costly. The most difficult consents are environmental with impact on wildlife and light spillage being major issues. The tide has turned against extra street lighting in predominantly rural areas - as a minimum a system would need an environmental assessment and many people are keen to preserve dark skies and would therefore probably object.

Vehicle Activated Signs / Speed Indicator Devices

Vehicle activated signs (VAS) have been developed to address the problem of inappropriate speed where conventional signing has not been effective.

There is an established relationship between vehicle speeds and road accidents. On rural roads, driving too fast for the conditions is more likely to be a factor in accidents than exceeding the speed limit. Encouraging drivers to adjust their speed to suit the conditions is particularly important, since driver error is the major contributory factor in 95 per cent of accidents. A range of rural road safety engineering measures, including vehicle activated signing, has been developed to encourage drivers to approach hazards such as bends and junctions at a safe speed, and to encourage them to comply with the speed limit, e.g. through villages. Drivers exceeding a set threshold speed trigger a sign indicating the specific hazard or the speed limit. This may be accompanied by the message “SLOW DOWN”.

Image 8: Typical speed indicator device

A study of the effectiveness of over 60 installations on rural roads in Norfolk, Kent, West Sussex and Wiltshire was been conducted by TRL for the Department for Transport. The trial assessed the effect of the signs on speed and on injury accidents, and drivers’ understanding of the signs (TRL Report 548 Vehicle activated signs – a large scale evaluation). The signs appeared to be very effective in reducing speeds, particularly those of the faster drivers who contribute disproportionately to the accident risk, without the

need for enforcement such as safety cameras. In the study, a substantial accident reduction was demonstrated.

Due to the expense of installing these devices County Councils will normally only give consideration to areas where it has been clearly demonstrated that there is a history of accidents involving personal injury. However, Somerset County Council recently employed a softer approach to their policy for the installation Speed Indicator Devices (SID) and one was used at Alford in rotation with other sites in the County to late 2017.

SCC are however no longer able to provide a community mobile SID programme. They are, however, still prepared to support local communities that wish to purchase and manage the mobile SID signs themselves and welcome the opportunity to work with Town/Parish Councils to identify suitable locations and equipment as well as ensuring any sign's safe installation and operation on the County's road network.

Any persons installing these signs will need to be qualified to the relevant standard and accredited to work on the highway; including wearing appropriate personal protective equipment. The relevant training is known as Chapter 8, which refers to Chapter 8 of the Traffic Signs Manual, signing, lighting and guarding. There are providers who deliver the course within the County and an internet search will identify these training providers. Public liability insurance would also be required and employer's liability insurer to cover the installer(s).

The County Council has previously only endorsed the use of SIDs that display the posted speed limit when activated, and this is still the Traffic Working Group's preferred position, however they have listened to feedback and are now able to consider signs displaying the actual vehicle speed; up to no more than 10 miles per hour above the actual speed limit; for those communities who wish to use the signs in this way.

For more detail on the purchasing and managing of a SID sign, or if more detailed advice is required, e-mail:- transportdata@somerset.gov.uk.

Traffic Calming – Humps, Cushions, Chicanes and Narrowings

Traffic Calming refers to a system of vertical or horizontal deflection which is designed to slow vehicles down. Traffic Calming is used extensively throughout the UK and has proven significantly effective. However, in the case of both vertical and horizontal measures, legislation demands that deflections are clearly lit to provide sufficient conspicuity.

Vertical traffic calming features include speed cushions or flat top road humps and statistics have shown that they reduce accidents in the region of 43%. However, their effectiveness is usually down to a combination of oncoming traffic and on-street parking interrupting the smooth flow of traffic in urban areas. There is also a reluctance to install vertical features where there is a chance that traffic is travelling in excess of 30 mph. In many cases they are installed with complimentary measures such as mini roundabouts which are designed to slow traffic before they reach the vertical deflection. As on-street parking is not the norm in Alford, the flow of traffic is largely uninterrupted and often exceeds the 30 mph limit.

The process of installing these features includes a requirement to consult with the emergency services, organisations or groups representing people who use the road such as bus operators, other transport service providers and residents and traders of the road in which they will be installed. This is to ensure that the dimensions and spacings of features are designed to cater for emergency services - speed cushions can be straddled by ambulances and fire engines. However, they can also be straddled by any other wider vehicle such as vans or HGVs.

Given the above, the use of vertical traffic calming measures and the likelihood of their use being approved by the Highways Authority is not considered realistic in this location.

Image 9: Speed cushions. Note the presence of street lighting in a rural setting

Horizontal traffic calming features are less effective than vertical features with statistics having shown that they reduce accidents in the region of 29%.

Whilst there are many versions of horizontal traffic calming features in this instance, a single-lane working, consisting of staggered buildouts, narrowing the road so that traffic from one direction has to give way to opposing traffic is being considered.

A single-lane working chicane allows traffic in both directions, but there is only room for one vehicle to pass through at a time. Generally a priority is given to one direction, so that the possibility of vehicle conflicts is minimised. Priority should be given to vehicles leaving a traffic-calmed area, so that the speed of vehicles entering is reduced.

Chicanes have been used successfully in many traffic calming schemes across South Somerset. However, in some instances they have been removed because of complaints from residents, emergency services, or bus operators. Consultation prior to installation of chicanes is a necessary part of the design process.

Somerset Technical Advice Note 08/18 shows that research including on-site trials of traffic schemes suggests that single-way chicanes are acceptable where two way flows are between 3000 – 7000 vehicle per day, Alford's being at the lower end of this scale.

In Alford, if suitable positions could be found for chicanes at both ends of the village it would inevitably reduce the speed of the majority of traffic in the village. If it were possible to install one in the proximity of The Old Rectory it may have the added benefit of providing additional pedestrian access along the village. Although, even at a cursory glance positioning a chicane in this position could only be achieved after the removal of trees and hedging to provide adequate lines of sight.

The positioning of chicanes is a complex activity requiring expert knowledge to take account of lines of sight, the positions of all side roads and private accesses to enable villagers to go unimpeded about their daily lives. If there is a desire for this type of solution, despite the difficulties, the next step should be to seek further assistance from a highways expert to examine the feasibility.

Realistically, due to the lack of street lighting and the cost of this type of installation, it is unlikely to be Approved by Highways unless they can be persuaded to make it a priority or funding can be provided from elsewhere.

The photographs below (images 10-11) show examples of horizontal traffic calming, these also rely on balanced two-way flows of traffic along a road.

Image 10: Priority over oncoming traffic as part of traffic calming

Image 11: Give way to oncoming traffic as part of traffic-calming

White Lining and Signing

In 2017 Somerset County Council installed a Small Improvement Scheme (SIS) which made enhancements to signing and lining along the B3153. Some areas of vegetation were cut back to better define the highway and footways and re-open obscured visibility splays. The County Council selected this relatively light touch scheme – in parts little more than some long overdue highway maintenance works – from a range of suggested options.

The Traffic data analysis undertaken in the main body of the report indicates that rather than reduce the traffic speeds, the improved road surface and white lining has produced a less enclosed feel through the village which has resulted in increased speeds.

The Council also used regularly to place a mobile SID (Speed Indicator Device) at the western approach into Alford. These alert drivers to their speeds as they approach the device. The sign flashes up in front of the driver and often a driver will ease off their accelerator or brake to slow down if the number indicated is too high. However, from 2018 a SID is no longer provided by the Council. It may be worth canvassing the Parish Council to fund a replacement SID or one of its equivalents that have a variety of warnings and displays, with the permission of the County Council, the Highway Authority.

A number of companies manufacture a range of vehicle activated signs including:
Westcotec (https://www.westcotec.co.uk/product/product-name/)
Coeval (https://www.coeval.uk.com/products/vehicle-activated-speed-warning-signs/)
Roadside Technologies (https://www.roadside-technologies.co.uk/vehicle-activated-signs/)

Improvement of Pedestrian Access and Enhancing Pedestrian Safety

There is some considerable desire to enhance pedestrian safety and enable pedestrians to make safe transit from through the village.

Ideally the short length of narrow footway within the village on the north side of the B3153 would be widened and extended throughout the village and to link all houses to the bus stops. However footways can only be widened inwards or outwards, by narrowing the road itself or by taking land from adjacent landowners. As described above there are already concerns that the road is too narrow to accommodate regular traffic, so taking part of the carriageway is not a viable option. Widening outwards would depend on the various frontages being willing to dedicate or sell strips of land. Certain pinch-points are caused by buildings abutting the highway; demolition of these buildings is not likely to be popular. Extending the footway in a linear fashion would be similarly problematic.

In the case of Alford with the B-road having a relatively modest traffic flow, such a broadening of the whole highway corridor could also have the effect of increasing speeds. This is a risk the Parish Council would wish to consider most carefully before deciding which if any traffic calming options they might lobby the County Council to provide or to permit.

At the junction of Church Lane matters could be improved for all road users if a verge and visibility splay could be created on the northwest corner. This junction is quite near the western bus stop on the south side of the road. Setting back of the hedge on the corner would provide improved visibility between vehicles and a refuge for people walking, to the bus stop or the church for instance.

Short of achieving longer or wider footway provision, fewer, smaller, slower vehicles passing through Alford would reduce the risk to pedestrians who must walk within the live carriageway where there is no footway.

Measures for Community Involvement

Monitoring and evidence, local activism – e.g. trimming hedges. This is about local people doing what they can. Landowners may keep their boundary hedges trimmed back, may trim vegetation further to open lost visibility splays along the highway links or at junctions. By pruning back low tree branches or overgrown hedges drivers may see each other better and other road users, but people must be aware to take into account that this may entail working on the highway. Permission may be required, or safety signing for instance.

A greater understanding of which companies are using the route could be achieved by observers recording information on lorries, for instance, how many from a particular company are seen how frequently.

The Parish Councils could consider undertaking Community Speedwatch – local volunteers can be trained in the use of a speed gun, monitor speeds at a location, and drivers can be sent educational letters if they exceed a safe speed. More information can be found at:
https://www.communityspeedwatch.org/

Farm drainage schemes, more considerate crop and land management schemes may be possible to reduce water run-off onto the road.

Measures for the Local Highway Authority, Somerset County Council, to Consider:

The Parish Council might lobby the County Council and persuade it to revisit some of the possible route treatments proposed in the County Council consultant's report of 2015. However, while the County Council is empowered to do such things, they may not have funds available to do so, the Parish Council might offer to pay or raise funds.

The traffic evidence shows that there is more traffic travelling at higher speeds in 2018 than in 2017. Traffic growth is not surprising but increasing speeds suggest failure of the SID to manage traffic better as it passes through Alford. In the light of this evidence the County Council might be persuaded to revisit some of the more 'heavy duty' treatment options put forward by their consultants in the lead up to the SIS implementation: such as engineering measures and the application of further Traffic Regulation Orders.

4. FUNDING OPTIONS

Funding options and Opportunities

Although some behavioural changes may deliver some improvements, highway engineering, traffic management schemes and the introduction of new technologies will cost money. Where County Council funds are not available, other sources to seek improvement will be required. The Parish Council itself may be able to fund works themselves, or they may be able to raise funds locally from interested individuals and stakeholders. This would be particularly relevant to small discretionary schemes such as operating a SID, commissioning traffic surveys and schemes that raise the profile of the village such as gateways and street furniture.

Therefore, the Parish Council will need to consider a broad range of possible sources including the community of Alford itself (landowners, parish council, Care4Carey etc), donations generated by corporate goodwill and social responsibility, the District and County Council, and contributions through the Planning System and other regulatory regimes.

South Somerset District Council adopted a Community Infrastructure Levy (CIL) charging schedule on 17th November 2016 which came into effect on 3rd April 2017. CIL is a planning charge to help deliver infrastructure to support the development of an area. The principle behind CIL is that most development has some impact on infrastructure and should therefore contribute to the cost of providing or improving infrastructure to mitigate the impact. Parish Councils will receive 15% of the CIL money collected in their Parish which they can spend on anything they feel is necessary because of the development that has taken place within their parish area. Although funds to PCs from CIL come from developments within the Parish, and a Parish like Alford is unlikely to have much development that meets criteria for significant sums of CIL, as this study is for an area with several parish councils and Castle Cary is frequently affected by development (as Care4Carey may attest), it may be that the knock-on effects of development most likely close to Castle Carey/ Ansford can nevertheless be used to pay for route improvements along the B3153 should such be a shared aim between the parish councils and other stakeholders concerned. Further information can be found at:

https://www.southsomerset.gov.uk/planning-and-building-control/planning-permission/community-infrastructure-levy-(cil)/

5. SUMMARY

General

The challenge in satisfying the wishes of Alford residents is complex and demanding as it depends on a number of unknown variables such as:

- The potentially differing views on the solutions offered, by the Alford residents;
- The success level in diverting unnecessary traffic along alternative routes;
- The ability to persuade County Highways to prioritise and physical changes within the village;
- The potential to raise funding that may help to influence County Highways prioritisation.

As a result, it should be recognised that there is no quick fix to the Alford problems and that it will need a continued commitment from the residents and possibly Parish Council to drive a series of solutions, maybe over a number of years.

MNY examined the following three approaches to reducing speed of traffic through Alford and considered a number of activities that may improve general safety:

- Traffic Lights;
- Vertical traffic calming measures;
- Horizontal traffic calming measures (Chicanes).

All three of these approaches would require street lighting to be installed within the village, for which approval is becoming increasingly difficult. In addition to being costly to install, various consents are required including environmental, with impact on wildlife and light spillage being major issues.

The installation of traffic lights was ruled out due to the prohibitive cost and the fact that in highway management traffic signals would be seen as a solution of last resort and only used if a safe layout could be achieved. The poor geometry of the B3153 and the number of accesses and side roads, which would all have to be signalled individually, does not lend itself to this approach.

Vertical traffic calming measures were ruled out as they are not suitable in areas where traffic is travelling in excess of 30 mph. In many cases they are installed with complimentary measures such as mini roundabouts which are designed to slow traffic before they reach the vertical deflection. As on-street parking is not the norm in Alford, the flow of traffic is largely uninterrupted and often exceeds the 30 mph limit.

Horizontal traffic calming measures (Chicanes) were considered the only viable option of the three approaches. If suitable positions could be found for chicanes at both ends of the village it would inevitably reduce the speed of the majority of traffic in the village. In particular, the existence of the pinch point in the B3153 adjacent to the Old Rectory, where the road narrows so two HGV's cannot pass, means there is the makings of a natural chicane. The construction of a chicane in this position with priority for traffic leaving the village could include a protected pavement and with reduced hedging, provide much improved visibility at the Church Lane junction. Such an option would need the agreement of The Old Rectory as part

of a comprehensive improvement scheme. However, the positioning of chicanes is a complex activity requiring expert knowledge to take account of lines of sight, the positions of all side roads and private accesses to enable villagers to go unimpeded about their daily lives. If there is a desire for this type of solution, despite the difficulties, the next step should be to seek further assistance from a highways expert to examine the feasibility.

Vehicle activated Signs (VAS) have been developed to address the problem of inappropriate speed where conventional signing has failed. Research has shown that these signs have had a reasonable amount of success in reducing traffic speeds and at relatively low cost, these are certainly worth pursuing.

Other physical means to improve safety that have been addressed are use of signage, white lining, maintenance of hedgerows and the introduction of footways. Where private land is needed to effect a solution to a safety problem (eg. the junction with Church lane) the community are best placed to negotiate this.