



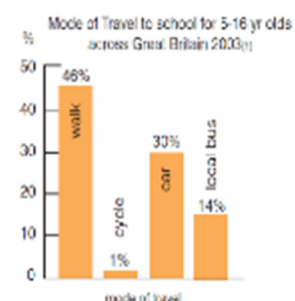
BRAMLEY PARISH COUNCIL

13th OCTOBER 2014

Safety Pedestrian Crossing Improvement Scheme Proposal

Summary –

- This report outlines proposals to create crossing improvements and a safe route to school for the majority of pupils and parents that walk or cycle to the Bramley Primary School. The proposal centers around the Level Crossing on the C32 and Bramley Lane junction off the C32 leading to the Bramley Primary School.
- The report will seek in-principle approval to implement the proposals, authorization to consult on a preferred option layout, and to advertise a 20mph Speed Limit Order for the proposed 20mph Zone around the dedicated pedestrian crossing over the C32 and level crossing.
- The report will also outline a longer-term plan to create an off-road shared use pedestrian/cycle route, removing pedestrian etc. from the dangerous heavily trafficked C32. The aim is to link the disconnected regions of the village of Bramley and also potentially bordering parishes, to enable, a safe route to school for all those that choose not to use motorized forms of transport.
- The aim of the proposal is to work with all available parties such as Hampshire County Council, Basingstoke and Deane Borough Council, Bramley Parish Council, Network Rail, national bodies such as Sustrans or County-wide Sustainable and Healthy Access Routes Programme and local business in developing a **co-funded** sustainable proposal.
- Safe Routes to Schools aim to enable more young people to walk and cycle to school. They usually involve a series of highway measures supported by other community and school projects making roads safer and providing the infrastructure and skills to make walking and cycling a popular choice.
- With average distances for school journeys increasing, busier lifestyles and fears over safety, the number of 5-16 year olds travelling to school by car has doubled since 1985. By creating Safe Routes to Schools we have a great opportunity to reverse this current trend. Currently approximately 40-45% of the parents and pupils of the Bramley Primary School must cross the C32 without supportive safety measures providing priority to Pedestrian users over motorised traffic.
- So why is it so important to encourage children to walk and cycle more? Like everywhere else in the UK, car use is on the rise. In the last 20 years





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the number of children being driven to school has doubled, this is despite the fact that the average school journey is just over three miles, or a 20 minute bike ride. The consequences of our ever more sedentary lifestyles are rising levels of obesity and traffic pollution which contributes to high levels of asthma.

- Add to this concerns about climate change (personal car use contributes 13% of the UK's total carbon dioxide emissions), congestion at peak hours (as much as a quarter of traffic on the roads at 8.50am is on the school run), and we believe we have a powerful argument for doing things differently. Like all children, the young people of Bramley want to travel independently to school. Nearly 50% of children in the UK would like to cycle to school, but only 2% do.
- It is the Bramley Parish view that every child should have the benefit of a safe route to school. We want to make this a reality for more children.





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Cost summary

- Bramley Parish Council would seek co-funding for the safety development and safe routes to school in the Parish.
- The land indicated within the Mekanix car park is owned by Network Rail and could be gifted in negotiations by them.
- The table below are cost estimates and if LIF funding was secured in principle, a full costed programme of works would have to be developed. The estimates are indicated as a maximum and indicated later could be significantly lower.

Description	Estimated cost
Phase A – Puffin crossing	£35000-£40000
Phase B – Pathway expansion and additional routing	£100000
Phase C – Safe area for Mekanix car park	£20000
Phase D – 20mph zone and hatching	£25000
Phase E – Further expansion of rights of way to cycle supporting width where possible in parish	£150000
Total	£335,000



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Background

- The main purpose of the proposed scheme is to improve the safety for pedestrians, in particular Bramley Primary students and parents. At the moment, many students/parents cross the C32 in the vicinity of the level crossing and Bramley Lane junction (Figure 1). The reason for this is that a main connecting path/rights of way exits on to the C32 opposite the Bramley Lane junction.

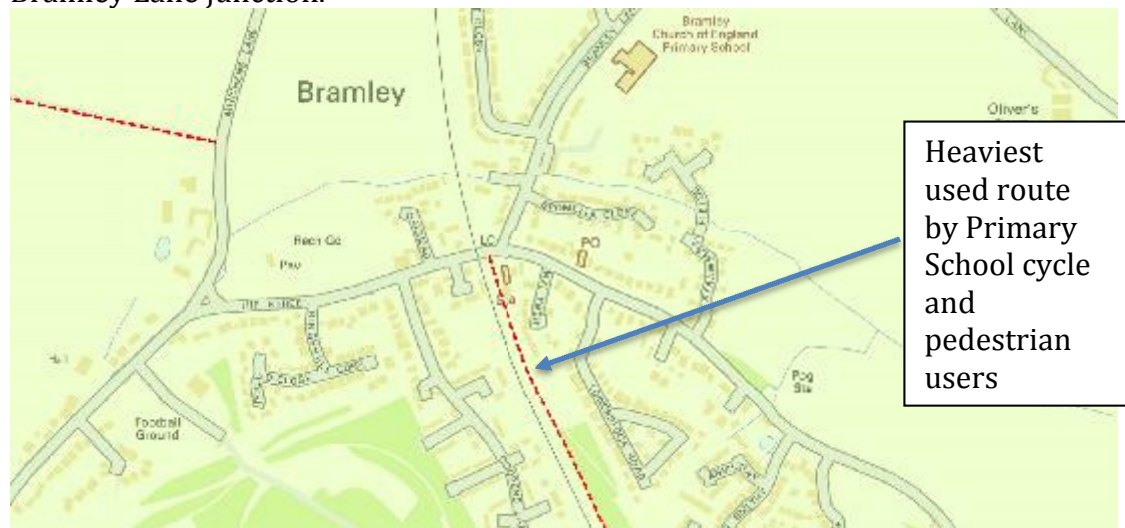


Figure 1 - The C32, Bramley Lane junction

- Currently within the village there are distinct areas separated by either the C32 North/South or the Railway level crossing East/West. No managed traffic control crossing is available to cross the C32 and paths are not interconnecting to separate cycle/pedestrian users from the C32.
- Over a number of years traffic-calming schemes have been applied to the C32 in forms of 'Pinch points' and pedestrian refuge areas (Figure 2). However these have not been designed and implemented to provide overall safety for residents in the village on the most popular route used to the Bramley Primary School.



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- The refuge points are located 480m from the main crossing area for the largest group of residents trying to cross the C32. As shown in Figure 2 one of the Refuge points is only 7cm above the National minimum defined by the Department of Transport and is unable to offer protection to a parent with a standard sized pushchair and a second child. The refuges have also been installed on a bend within the C32, some considered unsuitable. To quote the Department of Transport advice "*Section 3.2. Where they are to be provided it is essential for the location. Near a school, for example, large numbers of children with prams and pushchairs need to be accommodated.*"
- The absolute minimum width (across the road) for a pedestrian refuge is 1.2m, and the recommended minimum is 1.5 m, although 2m is preferred to accommodate pushchairs, wheelchairs and cycles.
- Central refuges can cause concerns for cyclists using the road and the recommended advice is that the through lane width should be either sufficiently wide to allow vehicles to pass cyclists in safety, or sufficiently narrow to prevent attempted overtaking within the narrowing. Gaps of 3.1m-3.9m seem to be least satisfactory from the cyclist's perspective. A gap of 4m-4.5m is recommended but where traffic speeds and volumes are lower a gap of 3m may be acceptable. Clearly the current refuges are operating outside of these guidelines.



Figure 2 - Available refuges 480m from school crossing point



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- Throughout the Parish there is no pedestrian priority, motorized traffic has priority at all time, with only the railway level crossing providing traffic management. Even with the barrier down, parents crossing the C32 at the suggested proposal area, must contend with vehicles regularly breaking the double solid white lines to proceed down the opposite carriageway due to traffic queues caused by the crossing and limited parking area of the only village convenience shop, located also on the C32.
- The Safe Route to school has been part of the Bramley Primary School Travel Plan since 2001, but funding has never been sufficient to provide the required development, despite County and Parish lobbying.

C32 Traffic volumes

- Survey data for the C32 indicates peak traffic volumes 0800-0900 and then from 1500 onwards.
- By providing a safe route to school and promoting less use of vehicles traffic volumes could be decreased and therefore queuing times at the level crossing.
- Increased traffic control would help to stream the C32 to a more indicative rural use; suitable for the minor road it is classified as.
- Figure 3 indicates traffic survey points conducted recently.



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Figure 3 - Traffic survey points

- The largest volume of traffic was measured at survey point 65594084, the C32 / Bramley Lane junction.
- Westbound and Eastbound show similar trends and are shown in Charts 1 and 2.
- The 5 day peak average values Monday to Friday were from 0800 to 0900, measured at 184 Westbound and 147 Eastbound. Condense these figures in to a 25 minute window due to the Railway Crossing barrier being closed to C32 traffic for on average 35 minutes per hour, indicates pedestrians having to cross a road with a car on average every 4 seconds. A short window of time to cross a busy road with a pushchair, child, scooter or bike.



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Surveyed traffic volumes

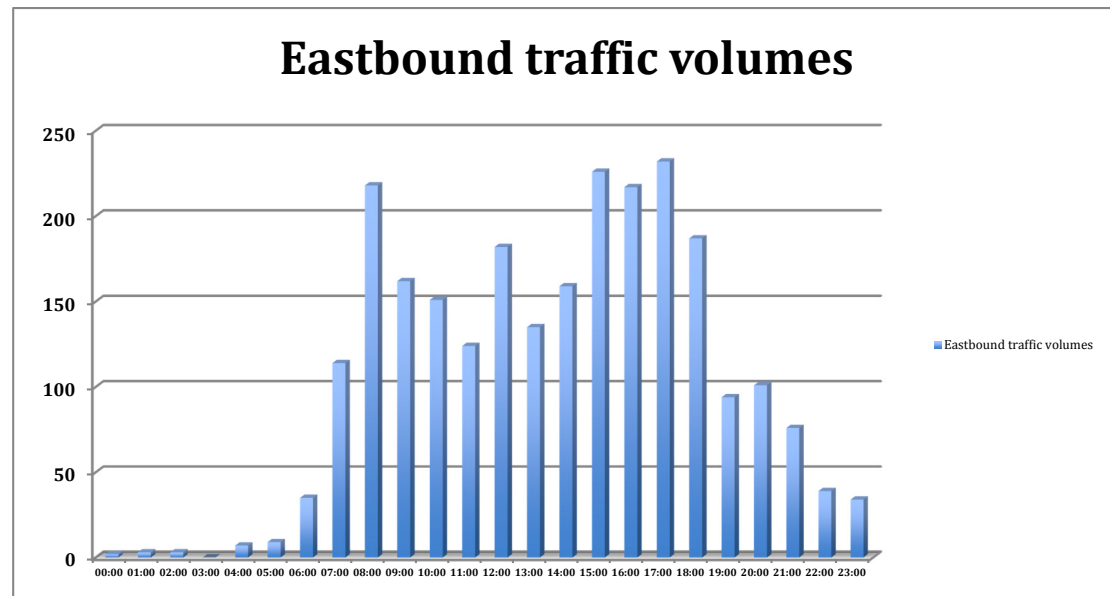


Chart 3

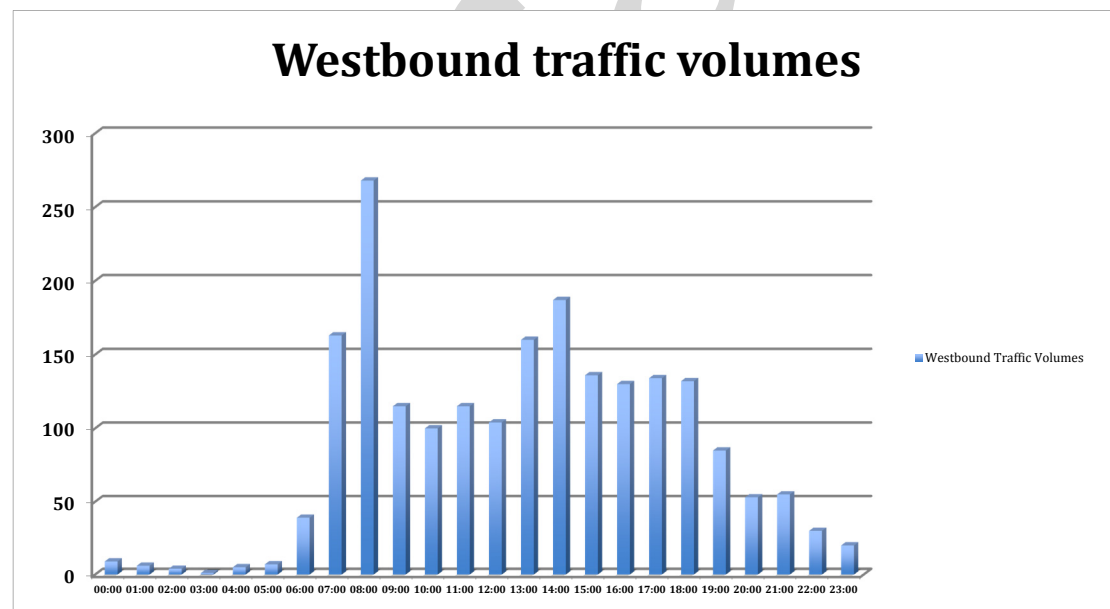


Chart 4

- Traffic flows on rural roads are predicted to grow by up to 50% by 2030, meaning an unsustainable traffic volume of 500 vehicles would be using the C32 in its current format at current railway traffic levels within a 25 minute window. Without the impact of increased railway traffic or further housing development in the parish.



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Level Crossing – Network Rail

- Annex A provides a copy of the Full Network Rail risk assessment for the C32 Level Crossing.
- At the recent assessment of the C32 crossing the following criteria were reported;
 - Individual risk rated as G, Medium risk
 - Collective risk rated as level, High risk

Individual Risk	Collective risk
A	1
B	2
C	3
D	4
E	5
F	6
G	7
H	8
I	9
J	10
K	11
L	12
M	13

- The risk assessment G3 is the combined assessment for individual and collective risk. Individual risk relates to the probability of a fatal accident to a single crossing user and range from A to M. Collective risk relates to the combined risk to all users that traverse the crossing; including pedestrians, road users, train staff and train passengers. Collective risk ranges from 1 (highest risk) to 13 (zero risk).
- The Network Rail risk assessment would benefit the most from a collective safety approach related to all elements of the crossing rather than one single user group such as pedestrians, this is supported by the collective risk being set far higher than the individual risk.
- It should be noted that Network rail assessed the crossing in a single day supporting 3294 vehicles, 729 pedestrians/cyclists, 208 trains per day.

Future rail predictions

- According to the Freight RUS, the total number of freight trains between Southampton and Basingstoke is likely to reach 51 each way per day by 2031.
- The electric spine will be completed in the early part of CP6 (2019-2020)
- An electric stopping service could reasonably be expected to provide a 15 or 20 minute interval service, at least in peak hours.
- The planned electrified western link into Heathrow from the GW mainline (Slough or West Drayton) could predictably create demand for a direct service from Basingstoke.
- The electrification process of the line from Basingstoke to Reading will lead to major infrastructure change and could be seen as an ideal time to implement a pedestrian crossing via bridge or tunnel linking in to a pathway/cycle structure for Bramley Village.



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Proposals

- Bramley Parish Council propose a staged development and safety improvement program within the village using Local Infrastructure Funding and other co-funded agreements as detailed earlier. The aims are to achieve a sustainable safe route to school for the children of the Parish, increase safety for all residents in the village and look to reduce vehicle use for short journeys so reliving congestion and reducing risk.
- We have listed each option as an individual program or task, but all are interlinked in a program of works to achieve the goals listed.

Option A – A pedestrian crossing enabling traffic control for cycle and non-motorized priority.

- Provide a Puffin crossing located at the existing 'Pinch Point' between Bramley Lane junction and the Jibbs Meadow junction.
- Extend the rights of way to include a designated route to the Primary school via the front entrance or through the pathway (that could be widened, already listed as part of safe route to school project 2001) along Bromelia Close to rear entrance to Primary School, removing pedestrians from vehicle traffic where possible.



Figure 5 - Puffin crossing enabling pedestrian priority and safe route to school

- Puffin crossings are the most modern type of signal controlled crossing and have been developed to overcome some of the shortcomings of the Pelican. Puffins have a near-side steady red/green man signal which can more easily be seen by pedestrians with sight difficulties. As the



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pedestrian signals are located on the near side and not visible to a pedestrian on the crossing, there is no confusion or anxiety caused by a flashing green man signal.

- All types of pedestrian crossing need to be appropriately lit and therefore it may be necessary to make amendments to the existing street lighting layout. Tactile paving should be used, the footway will be lowered flush with the carriageway and this may require drainage works to prevent rain water collecting at the point where pedestrians cross.
- Costings for the pelican crossings assumes that a high friction surface will need to be laid on each approach. We believe this a mandatory requirement for the crossing as would be a raised profile for the crossing area, given the available width at the crossing point and pathways supporting it is unreasonable for the crossing to support cycles and users would have to dismount at the end of the German Road path expansion.
- For a given location, a puffin crossing will always be more expensive to install than an equivalent pelican crossing, the typical cost of which is **£35,000**. The main difference in cost will depend on the equipment specified to detect when pedestrians are waiting to cross. In the simplest of cases (where only on-crossing detectors are fitted), the microwave detectors will add typically **£3,000** to the scheme cost.
- The additional cost of the Puffin crossing would benefit the elements of traffic control to the C32 and be the least impact.

Option B – Expand the Rights of Way path from the German Road estate through to the proposed C32 Puffin crossing.

- The 'Rights of Way' path linking the German Road and then consecutively Bramley Green Road, Campbell Road Estates should be widened and developed for both pedestrian and cycle use. This would then provide a viable Safe route to school away from the C32, reducing risk considerably.



Figure 6 - Option B - Cycle way expansion



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- It should be noted that this path route links to the largest population housing density areas for the village.



Figure 7 - Expand existing path linking the major housing areas

- Total costs for a new Cycle way is defined approximately as £100,000 per mile. The proposed option is an expansion on an existing path, newly re-laid due to 106 funding from the German Road development in 2012. The total length of the proposed widening would be 500m. Therefore a reasonable cost assumption as a maximum would be **£50,000**, but most probably below this figure.



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Option C – Provide a safe pathway area across the Mekanix/Bakery car park

- The land adjoining the Bramley Station and Mekanix car park can be developed to provide a safe, barrier protection path linking to the German Road expanded path and the proposed Puffin crossing.



Exit of German Road
expanded cycle way into
Mekanix car park

Develop land between car
park and station to be a
barrier protected pathway

- The total length of development is 65m, using the earlier assumption of cycle way costs per mile, this proposed option would be £10,000 approximately in total or less.
- The car park of the mekanix and bakery area would be barrier protected from the cycle and pedestrian traffic through to joining the main C32 pathway and then leading to the proposed Puffin crossing.



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Option D – Improved ‘road hatching’ to enable traffic control linked to Puffin crossing.

- The current traffic control signage around the crossing merely provides ‘keep clear’ warning and double constant white lines for both carriageways which are ignored on regular basis.
- The installation of a Puffin crossing would provide the added benefit of traffic control and parking enforcement within the area of the convenience store therefore benefitting traffic flow.
- Hatching both sides of the level crossing which interconnect to the overall plan of providing more priority in a rural village on a minor road to the pedestrian user.



Hatching ‘no stop’ areas to limit vehicle access close to barrier.

- Indicative costs are Hatching (above) costs £7.50 per sq. metre. The total area suggested is approximately 100 sq. m, therefore a total cost of **£750**
- Application of a 20mph zone would be applied around the hatching and Puffin crossing areas.