



## AGENDA ITEM NO 7

### HENLEAZE, STOKE BISHOP AND WESTBURY ON TRYM NEIGHBOURHOOD PARTNERSHIP

10<sup>th</sup> March 2014

**Title:** Devolved Transport Budgets for 2014/15

**Officer presenting report:** Mark Sperduty – Area Manager

#### RECOMMENDATION

1. To agree the 2014/15 work programmes for carriageway surface dressing and footway maintenance (Sections 1 and 3).
2. To comment on the proposals for future delivery of local traffic schemes (Sections 5 to 10).
3. To note progress on outstanding Local Traffic schemes (Section 11).
4. To agree to Eastfield Road local traffic scheme moving on to implementation of option 2 within the original funding allocated (Section 12)
5. To note the Chock Lane feasibility report and agree funding the implementation of the recommendations contained in the report (Section 13)
6. To remove the feasibility studies listed in Section 14 from the NP work programme.
7. To place on hold the feasibility studies listed in Section 15 pending the outcome of recommendation 2.

**Carriageway surface dressing – (sufficient funding is available to deliver the priorities listed below)**

1. We would like to ask the NP to agree the carriageway surface dressing priorities as detailed in the table below. The priorities are based on routine inspections and technical assessments carried out by our Highway Officers.

<b>Ref</b>	<b>Location</b>	<b>Ward</b>	<b>Estimated cost</b>
SD1	Coldharbour Road	Henleaze & Redland	£4,100
SD2	Parrys Lane	Stoke Bishop & Westbury-on-Trym	£28,100
SD3	Druid Hill	Stoke Bishop	£9,900
SD4	Combe Bridge Avenue	Stoke Bishop	£6,200
SD5	Hazelwood Road	Stoke Bishop	£3,600
SD6	Eastfield Road	Westbury-on-Trym	£4,800
SD7	Holmes Grove	Henleaze	£4,200
SD8	Owen Grove	Henleaze	£1,400
SD9	Cairns Rd	Henleaze	£2,600
SD10	Bayswater Avenue	Henleaze	£4,300
SD11	Etloe Road	Henleaze	£2,900
SD12	Cross Elms Lane	Stoke Bishop	£2,800

**Footway maintenance schemes (Budget available £63,000)**

2. The budgets available are similar to those for 2013/14. The footway maintenance budget has been split equally amongst the Community and Neighbourhood Partnerships, based on the number of wards in each. Therefore, Partnerships comprised of two wards have £42,000 and partnerships with three wards have £63,000. This funding may change slightly once the final accounts from the current year's footways schemes are known.
3. We would like to ask the NP to determine the footway resurfacing priorities from those locations detailed in the table below. These have been selected as locations in need of attention following routine inspections and technical assessments carried out by our Highway Officers, and include any footways raised with us directly.

Those marked with a Mxxx reference are locations where concerns had been raised through the Neighbourhood Partnership, Local Forum and Transport Sub Group directly. F3, F15 marked with a \* covers the remaining parts which were not funded in 2013/14 .

Ref	Location	Ward	Estimated cost	Score
F1 (M105)	Hill View	Henleaze	£53,000	85
F2 (M116)	The Crescent	Henleaze	£34,000	85
F3* (M117)	Kellaway Avenue (Between no.49 & Lansdown Terrace)	Henleaze	£17,000	80
F4	Lakewood Rd (Between Lakewood Crescent & end of road)	Westbury-on-Trym	£35,000	80
F5	Priory Court Road	Westbury-on-Trym	£24,000	80
F6	Sandyleaze (Between Hammond Gardens & Canford Lane)	Westbury-on-Trym	£21,500	75
F7 (M130)	Westover Road & Area.	Westbury-on-Trym	£38,000	70
F8 (M131)	Southmead Rd & Henleaze Rd (Wellington Hill West - Pycroft Ave)	Henleaze	£19,000	65
F9	Druid Stoke Avenue	Stoke Bishop	£8,000	65
F10	Walliscote Road & Area	Henleaze	£15,000	60
F11 (M132)	Great Bockeridge (Reedley Rd-Downs Rd)	Westbury-on-Trym	£20,000	60
F12 (M123)	Canford Lane (North side)	Westbury-on-Trym	£40,000	60
F13 (M122)	Canford Lane (South side)	Westbury-on-Trym	£38,000	60
F14 (M120)	Sabrina Way	Stoke Bishop	£26,000	60
F15*	Grange Park	Henleaze	£4,500	60
F16	Dorset Road & Area.	Henleaze	£15,000	55

4. For more information about the technical assessment criteria for carriageways and footways scoring, please look on the NP website (<http://www.bristol.gov.uk/page/council-and-democracy/neighbourhood-partnerships>), or ask your area coordinator. See Appendix 1 for the detailed scoring of the above potential schemes.

## Local traffic schemes

5. In 2013-14 a backlog in delivering local traffic schemes in neighbourhoods was acknowledged and a pause in decision making was agreed by NPs to deliver the backlog. This is on track for being complete by June 2014.
6. Unallocated devolved budgets have been carried forward meaning that from April 2014 your NP local traffic scheme budget is £51,426, although this funding is dependent on the final accounts from the schemes currently being progressed.
7. What has become clear during the pause is that there will not be enough capacity within the Highways team (specifically not enough personnel) to deliver more than 14 local traffic schemes per year in addition to S106 schemes and highways maintenance works. Prior to 2009/10 when budgets were devolved to Neighbourhood Partnerships, highway officers delivered 14-15 local traffic schemes per year, and since the devolution of the budgets the number of staff in the team has decreased while the workload has increased. The last three to four years have shown that realistically the highways team can only guarantee to deliver one scheme per Partnership per year.
8. Therefore, we are proposing the following:
  - Limit the number of schemes chosen per year across the city to 14 (equivalent to one per NP), which we know we can deliver.
  - We would like to ask each NP to consider choosing their schemes for a 3 year programme, and we will endeavour to work flexibly to deliver these schemes as quickly as possible within this timescale.
9. To enable consideration of the above, the current local traffic issues will not be brought in front of the Neighbourhood Partnership for prioritisation until the next meeting.
10. We are often asked whether contracting the work/using consultants would allow us to deliver more schemes. The answer to this is that we do regularly contract work out, and we also use internal and external consultants, for which we are charged. Whilst this can be an effective way of delivering projects when resources are limited, this is often not always viable or the best course of action for the funding available for the following reasons:
  - Consultants have to both cover their costs and make a profit from each scheme. Therefore, whilst the estimated cost of each project includes an estimate of staff time, external consultants generally cost more than direct Council employees for the same work, meaning that less can be achieved overall with this approach.

- The City Council also still have to manage the consultants so that they deliver what is required. Therefore, whilst the time they spend on each project is reduced, Highway officers will still be heavily involved in each project.
- Finally, the Council are not able to pass certain powers on to consultants, for example they do not have the authority to make the traffic regulation orders associated with parking restriction changes. Therefore, certain projects, or aspects of projects cannot be delivered directly by consultants.

**11. Update on local traffic schemes, s106 schemes, local sustainable transport schemes and other relevant schemes in the area.**

<b>Ref</b>	<b>Scheme / location</b>	<b>Current status (in progress/not yet started)</b>	<b>Estimated completion date</b>	<b>Funding Source</b>
1	Minor lines and signs	Implementation of a new contract has caused delays. Some work has been undertaken whilst other changes have been delivered as part of other schemes. A few further requests are currently being developed.	St Christopher's School, Westbury Park: access markings – completed  Trym Road /Channel's Hill: No Entry markings awaiting completion of utility works	NP
2	Westbury Park area - Parking restrictions review and consultation	Lining order issued – delays raised with contractor at contract review meetings to complete as soon as possible. Signs ordered.  Further amendments of restrictions waiting for outcome of Waitrose planning application.	Signing and Lining – March 2014  Anticipated September 2014	NP and central funds for corrections

3	Bell Barn Road/Sea Mills Lane area - Review and introduce parking restrictions	TRO completed and sealed. Lining order issued, signing ordered.  Half of the lines have been installed but withholding payment to contractor pending completion of outstanding work	March 2014	NP
4	Greystoke Avenue junction with Passage Road - Feasibility of banned turns	Report complete and published in Oct 2012.	Completed	NP
5	Northumbria Drive (entrance to Waitrose) - Undertake traffic/pedestrian movement counts and draw up some layout proposals	Scheme on hold due to possible planning application for extension to Waitrose car park	On Hold	NP
6	Henleaze road (exit from Tesco) - Review current layout	Report complete. Options to be discussed with the Transport Sub Group.	Report completed.	NP
7	Park Grove - Design study and local consultation	Feasibility report completed.  Funding for implementation has been obtained from the IBFF grants, therefore there is no decision required on progression of the proposals.	Feasibility report completed.  Implementation June 2014	NP and IBFF
8	Henleaze Road/Northumbria drive mini roundabout - Design study to re-shape the roundabout	Feasibility Report completed. Options to be discussed with the Transport Sub Group.	Completed	NP

9	Stoke Road/Saville Road - TRO for parking restrictions	Feasibility report completed. Consultation started. Implementation being funded by RPS	Feasibility report completed.  Implementation September 2014	NP
10	Rockleaze, Downleaze and Circular Road - Consultation and TRO for additional parking restrictions	Consultants commissioned - preliminary designs and site visits completed	As 9 above.	NP
11	Stoke Lane - Parking review along and at either end of the road.	Informal consultation has been undertaken, reviewed and scheme amended as a result. In TRO process.	June 2014.	NP and IBFF
12	Eastfield Road - Design consultation for footways improvement	Report complete (Appendix 2) and informal consultation undertaken.  <b>Decision required by NP - see Section 12.</b>	Report Complete	NP
13	Henbury Road - Steel demarcation studs to be installed to assist accurate parking	Completed – Parking services informed so they can now enforce parking in this area	Completed	NP
14	Southmead Road - Feasibility study for crossing	Feasibility report completed, implementation now funded by LSTF.	Feasibility report completed.  Implementation September 2014	NP and LSTF and Horfield and Lockleaze NP

15	Grange Court Road and Westbury Road - School keep clear 'zigzag' road markings and school warning signs	£4,542 of S106 unspent as school does not want keep clear markings to be made enforceable. S106 officer awaiting response from school on possible alternative uses.	Unknown	S106
16	Coldharbour Road - zebra crossing near Cairns Road junction	Feasibility report completed.	Feasibility report completed.  Implementation September 2014	IIBF
17	Chock Lane – feasibility study into measures to improve safety for route to school	Report completed. (Appendix 3)  <b>Decision required by NP - see section 13.</b>	Report completed	LSTF
18	West Broadway and South Croft – feasibility into traffic calming	Traffic counts undertaken, consultants commissioned.	June 2014	Well Being Fund

**12.** Eastfield Road – The feasibility report on options for improving the footway and crossing facilities on Eastfield Road by Chock Lane has been completed and is contained in Appendix 2. The Neighbourhood Partnership are asked to consider this report and consider allowing the allocated budget to cover the cost of installing option 2 – i.e. the installation of dropped kerbs to facilitate an improved crossing point. This should be able to be achieved along with the work undertaken to date within the original allocated budget of £3,000.

**13.** Chock Lane – The feasibility report on options for addressing safety concerns along Chock lane has been completed and is contained in Appendix 3. The Neighbourhood Partnership are asked to consider this report and determine whether any funding should be allocated to delivering the recommendations contained within.

**14.** In December 2013, the NP agreed to fund 6 new feasibility studies into traffic issues in the area from the 2014/15 traffic schemes budget. Three of these locations are the subject of wider work around the traffic implications of the Filton Airfield and other developments in the area, and therefore it is



recommended that these are not areas of work that the NP should concentrate their limited funds on. These are the studies of the junctions of:

- Southmead Road with Henleaze Road and Eastfield Road;
- Falcondale Road with Greystoke Avenue; and
- Falcondale Road with Westbury Road.

**15.** The approval of these discussions took place without the knowledge of the constraints being placed on future resources. Therefore, it is recommended that work on the remaining three new studies is placed on hold until the discussion around the issues raised in Sections 5 to 10 reach a conclusion. These are the studies into:

- Henleaze Parking Review (various roads);
- Shirehampton Road - crossing to serve the new playground; and
- Coombe Lane junction with Canford Lane – junction improvements.

### **Equalities impact assessment**

**16.** An Equalities Impact Relevance Check has been undertaken and determined that due to the fact that this decision has no impact on those with protected characteristics in the following ways a full equalities impact assessment is not required:

- access to or participation in a service;
- levels of representation in BCC workforce; or
- reducing quality of life (i.e. health, education, standard of living)

**17.** Generally, older people, those with a physical disability, or a mobility impairment are more likely to be disadvantaged than others with protected characteristics when there are footway and road maintenance issues.

**18.** Investment in Bristol's roads, footways, gullies and street lighting improves the accessibility and safety of the road and footway network and therefore has a positive impact on all equalities groups, and in particular older people, those with a physical disability, or mobility impairment.

### **Appendices**

Appendix 1 – Condition Survey Assessment form for Footways

Appendix 2 – Eastfield Road Feasibility Study

Appendix 3 – Chock Lane Feasibility Study

Appendix 1 - Condition Survey Assessment form for Footways								
Site	Ward	COST	SECTION 1 - CONDITION	SECTION 2 - ENVIRONMENTAL	SECTION 3 - PEDESTRIAN USE	SECTION 4 - PUBLIC / ACCIDENTS	TOTAL	COMMENTS
Hill View	Henleaze	£53,000	60	0	15	10	85	Replace poor macadam & concrete with asphalt & relay kerbs where necessary.
The Crescent	Henleaze	£34,000	50	0	25	10	85	Replace poor macadam & concrete with asphalt & relay kerbs where necessary.
Lakewood Rd	W-O-T	£35,000	60	0	10	10	80	Replace paving and concrete haulingways in asphalt.
Priory Court Road	W-O-T	£24,000	60	0	10	10	80	Replace paving and concrete haulingways in asphalt.
Sandyleaze	W-O-T	£21,500	50	0	15	10	75	Replace paving and concrete haulingways in asphalt.
Westover Road & Area.	W-O-T	£38,000	50	0	10	10	70	Replace poor macadam & concrete with asphalt & relay kerbs where necessary.
Southmead Rd & Henleaze Rd	Henleaze	£19,000	40	0	25	0	65	Replace macadam with asphalt.
Druid Stoke Avenue	Stoke Bishop	£8,000	50	0	15	0	65	Replace paving and concrete haulingways in asphalt.
Walliscote Road & Area	Henleaze	£15,000	40	0	10	10	60	Replace paving and concrete haulingways in asphalt.
Great Brockridge (Reedley Rd-Downs Rd)	W-O-T	£20,000	50	0	10	0	60	Replace paving and concrete haulingways in asphalt.
Canford Lane	W-O-T	£40,000	40	0	20	0	60	Replace poor macadam & concrete with asphalt & relay kerbs where necessary.
Canford Lane	W-O-T	£38,000	40	0	20	0	60	Replace poor macadam & concrete with asphalt & relay kerbs where necessary.
Sabrina Way	Stoke Bishop	£26,000	50	0	10	0	60	Replace poor macadam & concrete with asphalt & new kerbs where necessary.
Grange Park	Henleaze	£4,500	50	0	0	10	60	Relay existing paving
Dorset Road & Area.	Henleaze	£15,000	40	0	15	0	55	Replace poor macadam & concrete with asphalt & relay kerbs where necessary.



## APPENDIX 2

### HENLEAZE, STOKE BISHOP & WESTBURY-ON-TRYM NEIGHBOURHOOD PARTNERSHIP

**Report of:** Service Director – Transport Service.

**Title:** Feasibility Study into Safety Improvements on Eastfield Road.

**Officer presenting report:** Rob Grieve, Principal Officer, Highways and Traffic, Transport Service.

**Contact Telephone Number:** (0117) 92 23695

#### RECOMMENDATION

1. The Neighbourhood Committee is asked to consider the options given in the report.
2. It is recommended that an informal crossing point be installed in the form of a set of dropped kerbs at the location shown in the plan in Appendix B.

# 1 Background

- 1.1 The Henleaze, Stoke Bishop and Westbury-on-Trym Neighbourhood Partnership (NP3) Transport Working Group have identified pedestrian improvements on Eastfield Road by Waters Lane from their Highways Issues list as a priority scheme (see below):

Ref	Ward	Location	Details	Progress	Status
W109	WoT	Eastfield Road (near top of Waters Lane)	Pavement build-outs and pedestrian crossing improvements, including the widening of footways between Albert Place and Waters Lane	Cost estimated at approx. £10k. Design study and consultation (£3k) sanctioned at June 2012 NP. Est completion December 2013	Study sanctioned at June 2012 NP

- 1.2 As such this feasibility study considers the options available and recommends a solution to address the local concerns.

## 2 Stakeholder Concerns

- 2.1 The request for this study expresses the concerns about Eastfield Road raised through the Neighbourhood Partnership and is further supported through correspondence with residents, the local school and Councillors over a number of years, and by problems raised at Neighbourhood Forum meetings.

- 2.2 A compilation of the issues raised is detailed below:

- Speed of westbound vehicles turning left at the junction with Waters Lane, into the narrow residential section of Eastfield Road is too high.
- Pavement parking (in the narrow residential section) in Eastfield Road causes difficulties for pedestrians.
- Crossing Eastfield Road at its junction with Waters Lane is difficult as westbound traffic is fast and poor visibility of eastbound traffic coming up Waters Lane.
- Lack of dropped kerbs and width of footway make it impossible for people in mobility scooters and wheelchairs to cross Eastfield Road.

## 3 Road Characteristics

- 3.1 General

- 3.1.1 Eastfield Road (USRN 4524180) lies within the Westbury-on-Trym ward and is a C class road. It is effectively two distinct roads with a wider section acting as a local distributor road linking

Southmead Road to Waters Lane and a narrower section running from the top of Waters Lane to Westbury Hill.

3.1.2 The western end of Eastfield Road falls within the Westbury-on-Trym Conservation Area. The village hall and numbers 51 and 53 Eastfield Road are grade two listed properties.

### 3.2 Traffic Speeds

3.2.1 Speed data has been collected in 2009 using Automatic Traffic Counters (ATC). Data was collected over a week long period.

The figures in brackets after the average speed are the 85<sup>th</sup> percentile speed. This is a measure of the minimum speed the fastest 15% of traffic was travelling at.

Mean average speeds for eastbound traffic were recorded of 28.4mph (33.6mph) over a 24 hour period. The morning average speed was 28.0mph (33.2mph) and the evening average was 28.4mph (33.2mph). Average speeds for westbound traffic were 27.7mph (32.6mph) with AM peak of 27.5mph (32.3mph) and a PM peak of 27.6mph (32.3mph).

3.2.2 Data obtained from the team undertaking the citywide 20mph scheme show typical speeds recorded on Eastfield Road in 2012 at 17.9mph in the morning peak and 19.2mph in the evening peak eastbound, with westbound morning peak at 16.9mph and evening peak at 17.5mph.

3.2.3 The speed limit on Eastfield Road is due to become 20mph as part of the citywide 20 scheme although no physical measures will be introduced.

### 3.3 Traffic Volumes

3.3.1 The ATC data in 2009 shows the average volume of traffic over a 24 hour period as 7573 vehicles eastbound and 7634 westbound. The AM peak at 8am shows 651 vehicles in an hour eastbound and 693 westbound while the PM peak at 4pm shows 588 vehicles eastbound and 628 westbound.

### 3.4 Accident History

3.4.1 There have been no recorded injury accidents in the last three years.

3.4.2 In 2009 a fatal accident occurred involving a child between the junctions with Eastfield and Cote Lea Park. This accident occurred some distance from the area of interest and involved injudicious action by the driver.

### 3.5 Road Markings & Signage

3.5.1 The road signs are mostly in reasonable condition and in accordance with The Traffic Signs Regulations and General Directions (TSRGD).

3.5.3 The road markings are in reasonable condition.

## **4 Options**

The following is an analysis of potential remedial options, including those suggested by residents.

### **4.1 Central refuge island**

4.1.1 Introducing a refuge island can reduce vehicle speeds and make the road easier to cross by allowing pedestrians to cross in two stages.

4.1.2 A refuge island is typically two metres wide to allow sufficient space for pedestrians, cyclists and mobility scooters to wait. In some circumstances islands as narrow as 1.5 metres can be considered however this is below the recommended width.

Analysis:

The carriageway is 8.5 metres wide directly outside the village hall and it would be possible to fit a refuge island however given the close proximity of the junction and bend it would be difficult for large vehicles traveling up the hill to pass.

The number 20 bus service operates daily on Waters Lane and Eastfield Road.

All parking outside the village hall would need to be removed and there would be nowhere for loading and unloading to take place.

### **4.1.5 Conclusion**

This option is not to be recommended given the above constraints.

### **4.2 Kerb build-out**

4.2.1 In order to reduce the speed of traffic turning left into the western section of Eastfield Road an option would be to widen the southern footway to reduce the carriageway width and tighten up the corner.



4.2.2 To reduce the crossing distance and to improve visibility for pedestrians due to parked vehicles, it would be necessary to install a build-out on the northern side outside the village hall (the right hand side of the above photo).

Analysis:

At this location there are issues with visibility for both traffic coming up Waters Lane and also those turning right out of Eastfield Road. Pedestrians crossing north to south will have adequate visibility however when crossing from the southern side pedestrians will only be able to see vehicles within 20 metres of the crossing due to the gradient and existing retaining wall.

Widening the footway on the northern side will require regrading of the existing footway to avoid a low spot which would be liable to flood at the existing kerb line. It may be necessary to provide some footway drainage in the form of a channel. Carriageway drainage should be acceptable due to the gradient.

The footway on the southern side will also require regrading and in order to raise levels at the back of footway it will be necessary to assess the structural integrity of the adjacent wall. Carriageway drainage may require the installation of an additional gully as there appears to currently be a low spot which may be exacerbated with the realigned kerbline.

#### 4.2.3 Conclusion

Whilst physically possible and an improvement on the current situation, the benefits of this option are limited by the lack of visibility crossing so close to a bend and junction.

Widening the southern footway to around 1.6m will assist those in mobility scooters however the footways leading to this section are narrow and have various pinch points with some sections at less

than 0.9m wide. In addition a number of vehicles park on the footway reducing the available space even more. The benefit of widening this section of footway is therefore limited as it may be difficult to actually reach.

The cost of widening the southern footway and a build-out on the northern side are likely to be in the region of £10,000.

Costs could be reduced by not providing the northern kerb build-out however unless parking is removed from the front of the village hall (requiring a Traffic Regulation Order), visibility will be as limited as the southern side.

#### 4.3 Formal crossing

4.3.1 A zebra or signalised crossing can be considered at locations where sufficient numbers of pedestrians cross the road and appropriate visibility levels can be achieved.

4.3.2 A signalised crossing is likely to cost in the region of £40-£50k whereas a zebra would be approximately £25k.

4.3.3 Whilst it is physically possible to install a formal crossing at this location, visibility is an issue. The absolute minimum visibility for a 20mph road (Eastfield Road is due to be reduced as part of the Citywide 20 project) is 40 metres. Installing a crossing with less than the recommended visibility can cause regular instances of drive-throughs. If the crossing was installed near Albert Place visibility would be improved however it is not possible to widen the footway at this point.

##### 4.3.4 Conclusion:

Due to the lack of a suitable location, this option would not be recommended.

#### 4.4 Traditional Traffic Calming Techniques

4.4.1 Traffic calming can reduce vehicle speeds to make it easier for pedestrians to cross the road.

4.4.2 The principle methods of achieving lower traffic speeds using physical measures are vertical deflection features such as Speed cushions (road humps) and Speed tables or horizontal deflection features such as Chicanes.

4.4.3 Speed cushions and Speed tables both require a Road Hump Notice to be promoted which is a relatively costly lengthy legal process (around 6 months).

4.4.4 To provide suitable crossing points it could be possible to introduce raised tables. This would overcome the issues with footway gradients however additional carriageway drainage would be required.

Analysis:



It is not good practice to install a single traffic calming feature and so a number of raised tables would need to be introduced. Three locations between Waters Lane and Cote Lea Park would be an appropriate amount.

It is likely that a number of objections would be received including the residents adjacent to the raised tables and the bus companies.

The cost would be in the region of £50k.

#### 4.4.5 Conclusion:

This option extends beyond the scope of the study and is not recommended at this time.

### 4.5 Informal crossing point

#### 4.5.1 There are currently no dropped kerbs on Eastfield Road between its junction with Waters Lane and Albert Place.

##### Analysis:

While an informal crossing does not give pedestrians a priority it does enable parents with pushchairs and wheelchair or mobility scooter users to cross the road if there is a suitable gap in traffic.

Existing footway widths of 1.1 metres between Waters Lane and Albert Place are no worse than other sections of footway leading to this section.

Due to the narrow footway it could be difficult to turn a mobility scooter to enable a perpendicular crossing of Eastfield Road. An option would be to install a dropped kerb at the junction with Albert Place which is a quiet cul-de-sac. Another dropped kerb opposite Albert Place would then enable people to cross to the north side of Eastfield Road.

#### 4.5.2 Conclusion

Whilst not ideal, a pair of dropped kerbs would still be a potential benefit for any pedestrian who has been able to reach this point.

## 5 Costed Options

Measure	Cost per item (approx)	Total scheme cost (approx)	Officer recommended?
4.1 Central refuge island	£15,000	£15,000	No
4.2 Kerb build-out		£10,000	Yes
4.3 Formal crossing		£25-50,000	No
4.4 Raised tables	£15,000	£50,000	No
4.5 Informal crossing point	£1,500	£1,500	Yes

## 6 Conclusions

### 6.1 Traffic volumes

Eastfield Road does have a high volume of traffic, particularly at peak times.

### 6.2 Traffic speeds

The figures do not show traffic speeds to be significantly high in comparison to other roads, however given the narrow footways and road layout speeds will seem high to pedestrians attempting to cross.

### 6.3 Pedestrian facilities

The pedestrian facilities in the area are generally poor. This stems from the historic nature of the area and in many cases introducing pedestrian facilities to current standards can be difficult or prohibitively expensive. In these cases identifying and signing suitable alternative routes may be a more practical solution.

### 6.4 Accident status

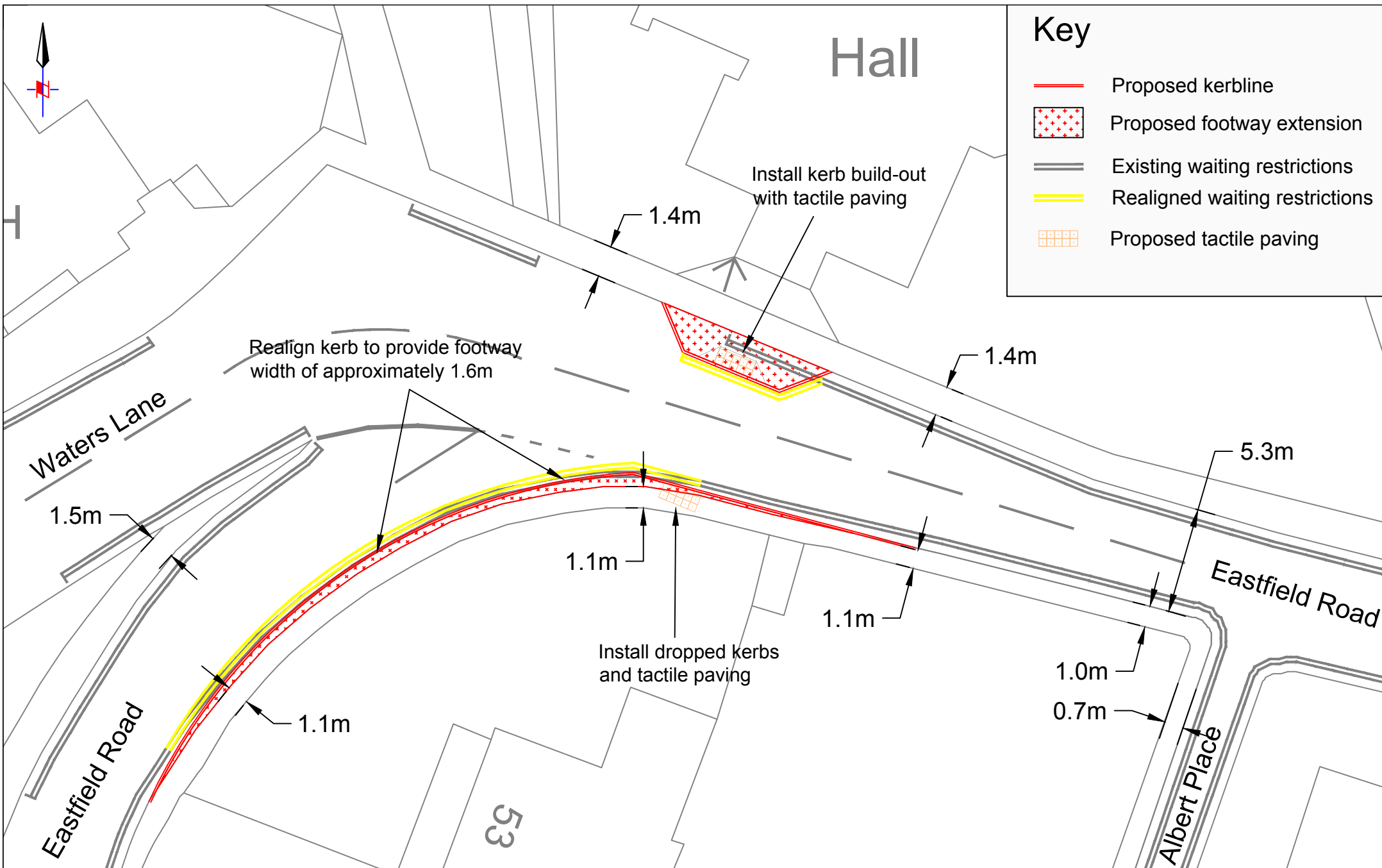
The lack of recorded injury accidents suggests that despite its layout, pedestrians and motorists are respecting each other.

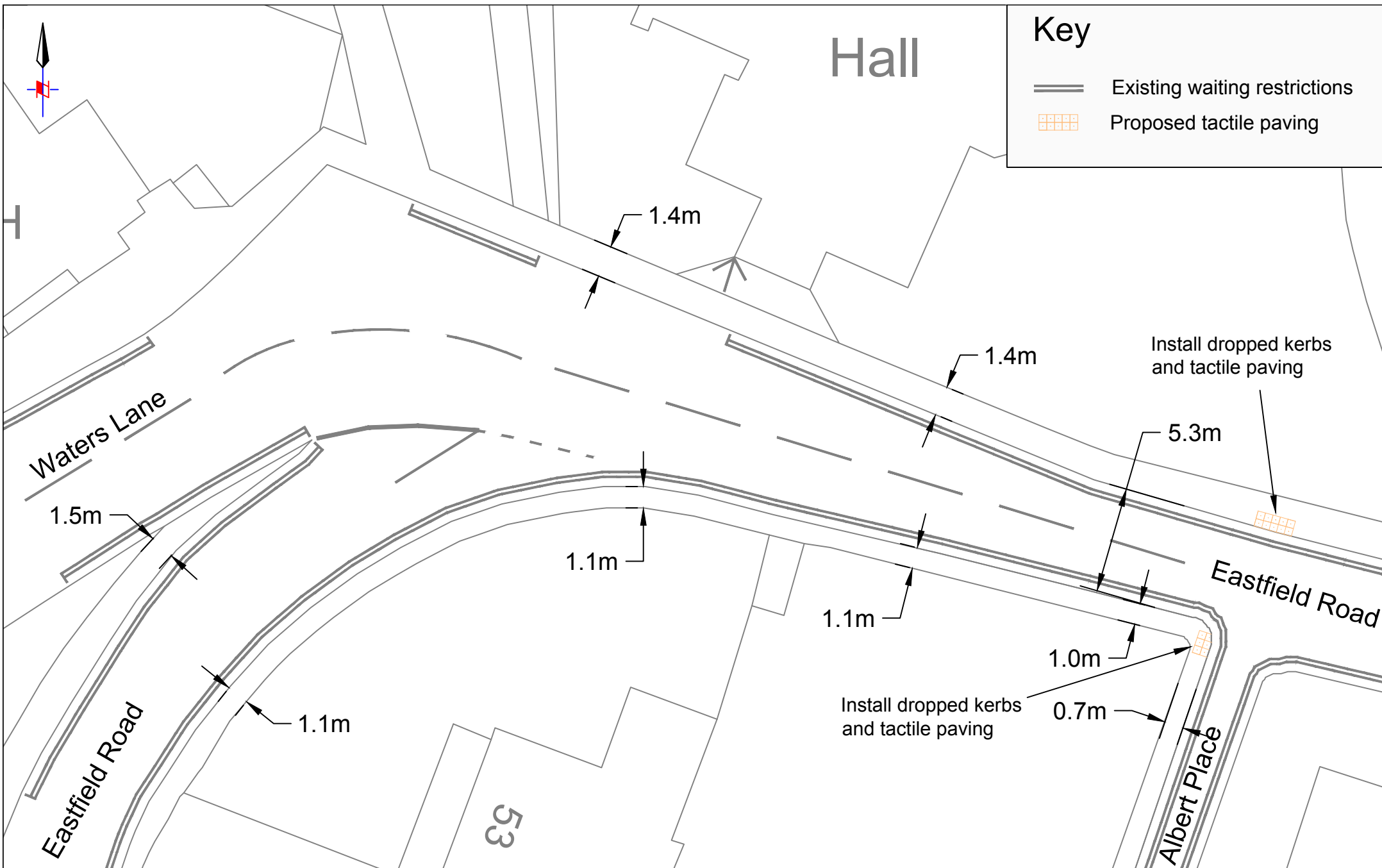
When determining the budget to be allocated to this scheme, due regard needs to be given to the fact that within Bristol there are over 100 locations at which 5 or more injury accidents have been recorded in the last three years.

## 7 Recommendations

7.1 It is recommended that an informal crossing point (4.5) be installed in the form of a set of dropped kerbs at the location shown in the plan in the Appendix B [Option 2]. Sufficient funding is available from the budget allocated to the feasibility study to undertake this work in the current financial year.

7.2 The other options can then be considered for funding in future financial years subject to competing priorities.







## APPENDIX 3

### HENLEAZE, STOKE BISHOP & WESTBURY-ON-TRYM NEIGHBOURHOOD PARTNERSHIP

**Report of:** Service Director – Transport Service.

**Title:** Feasibility Study into Safety Improvements on Chock Lane.

**Officer presenting report:** Rob Grieve, Principal Officer, Highways and Traffic, Transport Service.

**Contact Telephone Number:** (0117) 92 23695

#### RECOMMENDATION

1. The Neighbourhood Committee is asked to consider the options given in the report.
2. It is recommended that Phase 1 is implemented as outlined in the plan in Appendix A

# 1 Background

- 1.1 Concerns regarding the speed and volume of traffic in Chock Lane have been ongoing for several years.
- 1.2 In June 2009 consultation was undertaken on proposals for an experimental closure of Chock Lane to through traffic. Of the responses received, 61% were against closing Chock Lane to through traffic but concerns were raised about the lack of pedestrian crossing facilities on Eastfield Road. An experimental closure was not therefore progressed and after further consultation, works on Chock Lane and Eastfield Road to improve the pedestrian facilities were implemented in March 2010.
- 1.3 The Henleaze, Stoke Bishop and Westbury-on-Trym Neighbourhood Partnership (NP3) Transport Working Group have subsequently included Chock Lane on their Highways Issues list:

Ref	Ward	Location	Details	Progress	Status
W114	WoT	Chock Lane	Introduce traffic-calming measures	Road is already subject to a mandatory 20mph speed limit. Additional 'minor signing & lining' to be considered. Capital works (£5k) granted from LST Fund for an informal crossing point and/or additional traffic-calming measures	Under Review

- 1.4 Following an unsuccessful attempt in 2012 by the Westbury Academy Safer Walks to School Group to obtain funding from Phase 1 of the Local Sustainable Transport Fund (LSTF) Active Neighbourhood Grant, NP3 Transport Working Group submitted a revised bid to Phase 2 of the Grant in March 2013.
- 1.5 In June 2013 the LSTF panel awarded £5,000 to investigate further options that could be considered with the suggestion of footway improvements at the north end of Chock Lane. The full amount of £15,000 was not awarded as the panel felt further feasibility work was required to determine a suitable solution.

## 2 Stakeholder Concerns

- 2.1 The request for this study expresses the concerns about Chock Lane raised through the Neighbourhood Partnership and is further supported through correspondence with residents, the local school and Councillors over a number of years, and by problems raised at Neighbourhood Forum meetings.
- 2.2 A compilation of the issues raised (and some suggestions from residents about how they may be dealt with) is detailed below:

- 83% of parents in a WoT Primary School survey in 2011 felt that Chock Lane was 'not very safe' and there had been 11 near misses recorded (needs traffic calming such as road humps).
- Lack of a footway at the southern end of Chock Lane makes it unsafe for pedestrians (should construct footway on the west side).
- Lack of footway at the northern end of Chock Lane between the end of the segregated footpath opposite number 23 down to number 25 (should remove parking and install a footway outside these properties).
- Issues crossing the road between parked vehicles to get to the segregated footpath.
- The end of the segregated footpath is dangerous as the road widens at the point pedestrians need to cross (install bollard / planter as a chicane to keep vehicles away).
- Volume of traffic is unsuitable for such a minor road (consider reversing one-way on Channel's Hill and ban the left turn from Chock Lane to Trym Road to remove the 'rat-run').
- Speed of traffic is too high and is dangerous for pedestrians, particularly school children.

### **3 Road Characteristics**

#### **3.1 General**

3.1.1 Chock Lane (USRN 4545833) lies within the Westbury-on-Trym ward and is an unclassified road joining Eastfield Road at the South end and Trym Road at the northern end.

3.1.2 It falls within the Westbury-on-Trym Conservation Area. Numbers 23-26 Chock Lane are Grade 2 listed properties and two post-medieval limekilns are sited on the west side of Chock Lane opposite number 9.

3.1.3 The road has been one-way (south to north) since TRO 6738 was made operative on 27 July 1967.

3.1.4 A 13 tonne structural weight restriction was in place from 2004 until the culvert was upgraded and the weight restriction removed in 2009.

3.1.5 A 20 mph speed limit was introduced through the making of TRO 0834 which was made operative on 13 October 2008.

#### **3.2 Traffic Speeds**

3.2.1 Speed data has been collected in 2009 using Automatic Traffic Counters (ATC). Data was collected over a week long period. The figures in brackets after the average speed are the 85<sup>th</sup> percentile speed. This is a measure of the minimum speed the

fastest 15% of traffic was travelling at.

Mean average speeds were recorded of 19.9mph (24.3mph) over a 24 hour period. The morning average speed was 20.1mph (24.2mph) and the evening average was 20.7mph (24.9mph).

Approximately 30% of traffic was exceeding 20mph

3.2.2 Data obtained from the team undertaking the citywide 20mph scheme show speeds recorded on Chock Lane in 2012 at 17.2mph in the morning peak and 17.8mph in the evening peak.

3.2.3 Speed readings undertaken by the local Speedwatch group in 2013 show between 40 and 50% of vehicles exceeding the 20mph speed limit with around 7% traveling at speeds greater than 24mph.

#### 3.2.4 Conclusion

These datasets are based on varying methods of measurement and cannot therefore be directly compared.

However, they do show that although the speeds some vehicles are travelling at may not be considered appropriate for the road layout in Chock Lane, in general compared to the posted speed limit they are not excessively high.

### 3.3 Traffic Volumes

3.3.1 The ATC data in 2009 shows the average volume of traffic over a 24 hour period as 2078 vehicles. The AM peak at 8am shows 248 vehicles in an hour while the PM peak at 4pm shows 215 vehicles.

3.3.2 The Speedwatch records for 2013 show an average of 205 vehicles per hour.

#### 3.3.3 Conclusion

A substantial volume of traffic uses Chock Lane throughout the day and so any changes in Chock Lane need to be balanced with the impacts this traffic may have on neighbouring roads.

### 3.4 Accident History

3.4.1 There have been no recorded injury accidents in the last three years.

### 3.5 Road Markings & Signage

3.5.1 The road signs are mostly in reasonable condition and in accordance with The Traffic Signs Regulations and General Directions (TSRGD).

3.5.2 The 20mph terminal signs at the southern end of Chock Lane will need to be removed once Eastfield Road is reduced to 20 as part of the citywide project. Consideration will need to be given ensure the spacing of repeater signs is still correct.



3.5.3 The road markings are in reasonable condition.

## 4 Options

The following is an analysis of potential options for addressing the existing concerns and includes those ideas suggested by residents.

### 4.1 Vehicle Activated Signs (VAS)

4.1.1 VAS cost in the region of £5,000 each and incur ongoing maintenance costs.

4.1.2 DfT guidance on their use states '*Vehicle activated signs should be considered only when there is an accident problem associated with inappropriate speed that has not been satisfactorily remedied by standard signing*'

4.1.3 The suggested location is opposite number 10 in the verge at the point where pedestrians cross to access the segregated footpath.



Analysis:

VAS start to measure the speed of oncoming vehicles at around 60m. The gradient also reduces the distance at which the sensor will be able to detect. As this location is only 40 metres from the point at which the road widens vehicles are unlikely to have picked up much speed.

The location may not be suitable to install a standard VAS and either loops in the road or an external detector may be required adding to the cost.

Based on the Speedwatch figures, around 7% of vehicles would be travelling at speeds that would trigger the VAS (14 vehicles per

hour).

4.1.4 There are no other suitable locations on Chock Lane to consider a VAS.

#### 4.1.5 Conclusion

When temporary traffic calming was introduced to Chock Lane during recent water works, the Speedwatch recorded only 1-2% of vehicles travelling above 24mph.

There have been no recorded accidents in Chock Lane and although the use of VAS is recognised as a useful tool in helping to reduce traffic speeds in certain circumstances, their overuse can cause drivers to become complacent.

It is not recommended that a VAS is considered at this time. In line with DfT guidance other physical measures should be considered first.

## 4.2 Road Closure / Change of traffic flow

4.2.1 Consultation into closing Chock Lane was carried out in 2009 and overwhelmingly rejected and little has changed that is likely to make this a more popular option now. Therefore a road closure is not recommended.

4.2.2 There is no benefit to reversing the direction of traffic on Chock Lane as the AM and PM peak flows are similar. This suggests that vehicles are using it to avoid the village centre at all times and by reversing the flow it would likely still be used to avoid the centre. Additional traffic could be directed past the school on Channell's Hill whilst the access from Chock Lane onto Eastfield Road does not have good visibility.

4.2.3 Another suggestion has been to reverse the flow on Channell's Hill and ban the left turn at the bottom of Chock Lane into Trym Road. This option would again put more traffic past the school. As vehicles appear to be avoiding the village centre it is likely that they would continue to use Chock Lane whether they joined Passage Road at the Trym Road or Channell's Hill junction.

#### 4.2.4 Conclusion

Without a comprehensive study of traffic flows around the surrounding area any changes to flows in Chock Lane could cause problems elsewhere.

As there is no obvious benefit to any of the options mentioned above and given the potential side-effects it is not recommended that any changes are made to the traffic flow on Chock Lane.

## 4.3 Footway Improvements

4.3.1 A request has been made for a fully constructed footway at the southern end of Chock Lane.



### Analysis:

This has been investigated before and due to the narrow width of the carriageway (4m) any reduction would prevent large vehicles from accessing Chock Lane. This would prevent delivery vehicles accessing The Victoria PH and general deliveries and refuse collection to properties within the street.

An alternative option to a kerbed footway could be to apply a surface treatment to differentiate the pedestrian route as shown in the example below.



This could take the form of an imprinted surface using a hot applied resin based compound and can give the appearance of a block or cobble surface. Alternatively a coloured aggregate could

be applied to the existing road surface (as with bus and cycle lanes). Combined with some additional signage it could help to improve the perceived safety for pedestrians, particularly the young and elderly.

Although significantly cheaper than a conventional block surface the cost is still relatively high and there is an ongoing maintenance liability however as it should receive minimal over-running by vehicles this is not considered to be a major issue.

- 4.3.2 A request has been made for improvements to help pedestrians access the southern end of the segregated footpath.



Analysis:

The obvious solution would be to alter the kerblines on the east side (right hand side in the photo) to provide an informal tactile paved crossing point in line with the tactile paving on the west side, however this would affect the ability for vehicles to turn right out of their access.

As vehicles often park close to the tactile paving an option could be to build out the kerb on the west side which would have the effect of narrowing the carriageway and improving visibility for pedestrians. Drainage would not be an issue given the gradient at this point.

Although pedestrians would not be directed to a formal footway on the east side, the access is lightly trafficked and is already the current point of access for the footpath.

- 4.3.3 A request has been made for a footway to be constructed on the west side of Chock Lane opposite the northern end of the segregated footpath.



### Analysis:

A new footway would provide an improved pedestrian route from the northern end of the segregated footpath however, as can be seen in the lower photograph, would remove three parking spaces.

Currently pedestrians are forced to walk on the east side (left hand side in the lower photo) and are squeezed between the wall and the parked vehicles.

An option could be to construct a footway on the east side and remove the parking on the west side. With two vehicle accesses the footway would have to be at carriageway level although realigning the double yellow lines would help emphasise the edge of the footway. A TRO would be required to implement double yellow lines on the west side. Removing the parking could increase traffic speeds as it is currently acting as traffic calming and traffic would also be pushed towards the properties whose front doors open directly onto the carriageway.

Introducing a footway on the west side would allow for the construction of a full height kerbed footway and would offer

protection to the properties from traffic however care would need to be taken to ensure the threshold levels were not exceeded. A low pressure gas main is situated on this side of the road.

With this option pedestrians heading to Westbury on Trym Academy would have to cross the road twice, once at the end of the segregated footpath opposite number 24 and then back again to access the public gardens as there are limited opportunities to cross at the junction with Trym Road. If vehicle volumes and speeds are still high with the removal of parking then this increases the risk.

An alternative could be to introduce coloured surfacing on the east side of the road linking the end of the segregated footpath to the short length of existing footway. This would highlight the presence of pedestrians although due to parked vehicles is likely to be over-run the majority of the time. If introduced with the other traffic calming features the slower speeds should allow vehicles and pedestrians to share this space in a safer manner than currently experienced.

- 4.3.4 Complaints have been received regarding parked vehicles causing issues for the school walking bus which crosses Chock Lane between the public footpath adjacent to number 25 and the public gardens on the corner of Chock Lane and Trym Road.



Analysis:

There are currently no dropped kerbs on the west side (right hand side in the photo) and therefore vehicles are entitled to park. A simple option would be to install a set of dropped kerbs and tactile paving which would leave a gap for pedestrians to cross however

it would be reliant on motorists leaving enough room and visibility would be limited.

A kerb build out could be introduced on the west side which would remove one parking space providing adequate visibility for pedestrians. No TRO would be required. The gradient should remove the need for any additional drainage.

- 4.3.5 The original bid to the LSTF Active Neighbourhood Grant suggested the installation of rumble strips to provide a safe crossing point as shown in the adjacent photograph.

To avoid the need to advertise a Road Hump Notice, the maximum upstand needs to be 15mm or less. The irregular surface in the example may be an issue for two-wheeled vehicles and so a more uniform surface may be appropriate and in order to avoid drainage issues a gap at each kerb would be advisable.



Rumble strips are designed to make noise to slow vehicles down. As long as they are not adjacent to buildings, the noise and vibration from the rumble strip should be minimal and therefore this option may be suitable for both the walking bus crossing point and the further up the hill at the southern end of the segregated footpath. However a smooth surface finish should be considered to reduce the rumble effect.

#### 4.4 Traditional Traffic Calming Techniques

- 4.4.1 The principle methods of achieving lower traffic speeds using physical measures are vertical deflection features such as Speed cushions (road humps) and Speed tables or horizontal deflection features such as Chicanes.
- 4.4.2 Speed cushions and Speed tables both require a Road Hump Notice to be promoted which adds cost and time (around 6 months) to a scheme.
- 4.4.3 The introduction of speed humps or tables would allow Chock Lane to be classified as a 20mph zone rather than a 20mph limit and would allow gateway signs at the junction with Eastfield Road helping to emphasise it as a residential road.
- 4.4.4 Vertical deflection features are often unpopular and difficult to gain

local support and not generally appropriate in conservation areas. For these reasons they will be excluded from the options for Chock Lane.

- 4.4.5 Temporary chicanes were recently used in Chock Lane by Wessex Water when traffic was diverted. They proved popular with local residents and the Speedwatch recorded a significant drop in speeds with 80-90% of vehicles traveling below 20mph.

Analysis:

There are a number of locations where chicanes may work successfully in Chock Lane. They are ideal in advance of points of potential conflict to ensure vehicles are travelling at an appropriate speed, such as where pedestrian are likely to be crossing. With good advanced visibility they can help to reduce speeds on straight sections of road by focussing the driver on the narrowed carriageway. The type of chicane used can depend on the layout and character of the road. The type chosen can have an effect on ongoing maintenance costs and road safety based on their performance against the weather and from being hit by vehicles.

Local residents have suggested the installation of planters as a simple and cheap option. Planters require ongoing maintenance in terms of looking after the plants (a 15 years commuted sum is required by the Parks team), wooden structures do not last and it can be difficult to add and keep the necessary levels of reflectivity to ensure they are seen by motorists in the night. If clipped by vehicles they can move and possibly end up in positions that can cause danger to other road users.

Permanent chicanes can take the form of raised islands with a reflective marker of some type or can be designed to be over-run. The latter would allow for narrower gaps to be utilised potentially slowing small vehicles more and large vehicles would be able to over-run. A channel could be left to prevent drainage issues.





## 5 Costed Options

Measure	Cost per item (approx)	Total scheme cost (approx)	Officer recommended?
4.1 VAS	£5,000	£5,000	No
4.2 Road closure/change of traffic flow	-	£15-20,000	No
4.3.1 Imprint footway at southern end of Chock Lane	-	£2,500	Yes
4.3.2 Build out at southern end of footpath	-	£5,000	Yes
4.3.3 New footway at northern end of footpath	-	£15-20,000	No
Or surface treatment to provide shared surface	-	£850	Yes
4.3.4 Build out at walking bus crossing point	-	£7,000	Yes
4.3.5 Rumble strip	£1,500	£6,000	Yes
4.4.5 Chicane (over-runnable)	£2,000	£8,000	Yes

## 6 Conclusions

### 6.1 Traffic volumes

For a narrow unclassified road, Chock Lane does have a relatively high volume of traffic and given the layout of the road this is an issue that could benefit from being addressed.

### 6.2 Traffic speeds

The figures do not show traffic speeds to be significantly high in comparison to other roads, however Chock Lane is unusual in its layout, use as a route to school and lack of defined pedestrian facilities.

### 6.3 Pedestrian facilities

For a rural lane the pedestrian facilities may be considered adequate however as a route to school, these would benefit from improvement.

### 6.4 Accident status

The lack of recorded injury accidents suggest that despite its layout, pedestrians and motorists are respecting each other.

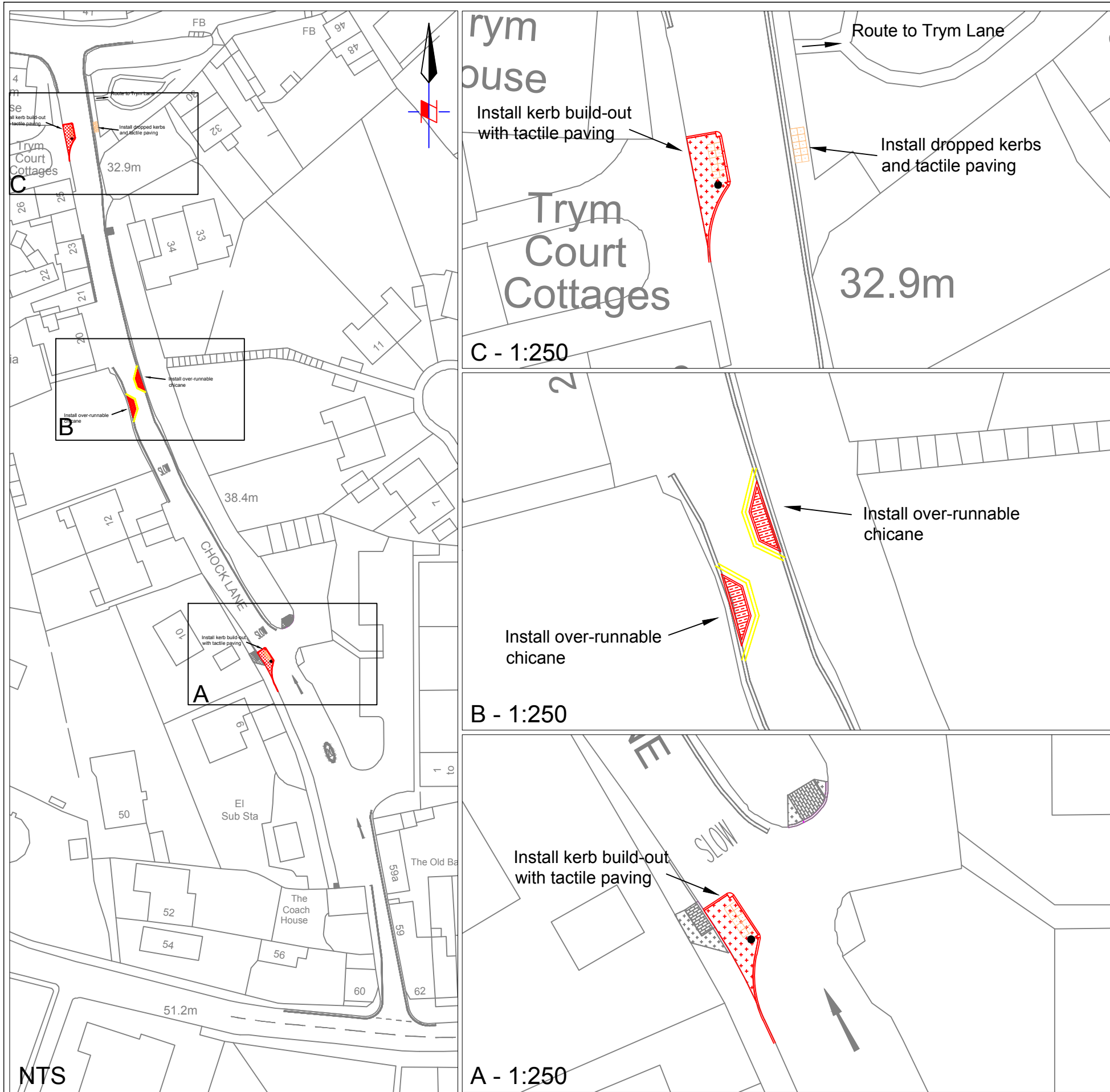
When determining the budget to be allocated this scheme, due regard needs to be given to the fact that within Bristol there are over 100 locations at which 5 or more injury accidents have been recorded in the last three years.

## 7 Recommendations







- 7.1 It is recommended that a range of measures be introduced to combat the problems outlined, primarily focussing on the two pedestrian crossing points (4.3.2 & 4.3.4) and speed reduction through the use of chicanes south of The Victoria PH [Phase 1].
- 7.2 Additional works may be desirable but may be unnecessary and should be considered at a later date if the initial works do not improve the situation [Phase 2].
- 7.3 Alternatively the entire package could be carried out which would result in some savings in temporary traffic management and road closures.
- 7.4 Whilst it is possible to introduce individual elements separately, it would be preferable to implement in the phases as indicated. If due to funding difficulties individual elements need to be considered then these should be carried out in a south to north order, preferably with phase 1 items first in order that motorists travel through a series of traffic calming features rather than arrive half way down the road at an individual feature.

### 7.3 Indicative works programme costs

Phase	Works	Approximate cost
1	Install two build-outs Install two chicanes Additional lining and signage	£17,000
2	Install Imprint footway Install two chicanes Install 2 rumble strips Additional lining and signage	£11,000
	All of the above	£27,000



### Key

-  Proposed kerbline
-  Proposed footway extension
-  Proposed chicane
-  Existing waiting restrictions
-  Realigned waiting restrictions
-  Proposed tactile paving



Example of an over-runnable chicane



