AshtonVale;

An investigatory report for the Greater Bedminster Community Partnership.

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Abstract

The purpose of this project is to carry out an investigatory piece of research into local needs for the Greater Bedminster Partnership, this will culminate in the production of a document which can be used to present local planning related priorities to external and internal organisations. Along with the generation of some aspirational ideas for addressing some of the key issues raised by community groups. This document will be delivered with a presentation.

What to expect?

The document will consist of two halves, the first half a detailed analysis alongside public consolations relating to the analysis, to contrast the statistical research with the anthropic local experiences. The Second half, an indicative proposal, explaining an approach to meeting a local need.

Who will produce the work?

The project will be carried out by three students of The University of the West of England in their graduation year (Jonathan Gomes, Josh Sturges, Jacob Westerman) of in the Undergraduate level degree, BA(Hons) Architecture & Planning (A RIBA part 1 & RITP recognised qualification), under the supervision, of RITP Chartered Planners working in a mentor/supervision capacity.

Who is it for?

The project will involve working with the Greater Bedminster Neighbourhood Partnership (GBNP), an organisation of local councillors, voluntary community organisations, public agencies and private enterprises. The GBNP operates in the Bedminster, Southville areas, and provide funding for local projects through their community chest. The objectives of the partnership are to benefit the local populous, by providing an opportunity for residents to influence policy whilst promoting cooperation between all local stakeholders.

What's it for?

The project itself will fit into the work of the GBNP by providing an informative document that aims to provide a representational precis of AshtonVale that can be used to support local communities in dialog with other agencies.

Where will it be?

The project work will be focused on the locality of AshtonVale, a small community on the south western periphery of the city of Bristol, bordering North Somerset. The small neighbourhood is mostly isolated from the rest of the city, this is due to its proximity to a rail line, and the A3029, along the north- east of the locality. There are currently plans to alleviate this disconnect, through the introduction of a new metro bus link, however some locals have voiced concern to how this will affect their current public transport links, i.e. the 24 bus.

The work to be agreed

- Analysis of the neighbourhood; looking into the environmental, social and economic aspects of neighbourhood to provide a foundation for future projects.
- Identifying key community groups; these initially appear to be the GBNP, Ashton-Vale Together (AVT), alongside the local school and youth groups.
- Assessment of the local needs; this is to be carried out post-production of the analytical report where the need will be identified, this will achieved through communication with local residents.
- Highlighting the needs to the neighbourhood; through approaching key community and demographic groups; this will be achieved through a SWOT analysis of the area.
- Engaging in constructive dialogue with the key community and demographic groups (with set engagement methods to be established for each group) to gauge the most pressing needs; thus allowing refinement of the analysis to generate a clearer picture of the area.
- Indicative proposals to be presented in a final document; the three students will prepare three individual reports each with specific ideas for future opportunities.

Final outputs

- Formation of the final three documents (one per student) with one indicative proposal individual to student, in .pdf format on a USB stick personally handed to Ben Barker, with a printed and bound copy.
- A single group presentation to convey the key findings and proposals of the documents to the key community and demographic groups. This will be done through presentational A1 posters of the proposals and a PowerPoint presentation with a brief overview of the analysis.

Methodology

The methodology that will be employed in the process of developing this document will involve a desk study based analysis into three categories; social, environmental, economic. These categories will be met by referring to the local development plans of the City of Bristol and North Somerset, to collate information on potential future developments, and local policy decisions, and the GBCP for information on the local funding opportunities, statistical research and collation of census information on to gather key demographics geographic research from sources such as the Environment Agency for flood information, the Wildlife Trust for information on the local biodiversity and ecological systems, and ordinance survey maps for general cartographic research, highlighting the current key local amenities, through anthropic research, contacting Historic England and the local historic groups, for information on listed buildings and locally valued sites, analysis of local Strengths, Weaknesses, Opportunities and Threats, (SWOT analysis). Public consolation with key community and demographic groups such as the Bristol City Football Club to gather information on local interests and precedent studies of relevant projects to develop case studies.

The Timetable of works

Week 1	Monday	Introduction to the project
		Preparation of the office space
	Tuesday	Meeting with a representative of the client (Ben Barker)
		Clarification of the required works
		Initial visit to the surrounding area
		Initial neighbourhood visit
		Initial dialogue with local entities (such as AVT)
	Wednesday	Development of the brief
	Thursday	Refinement of the brief
	Friday	Further brief refinement
		Feedback from Ben Barker
		Final changes and submission of the brief
		Initial desk studies; (a)Jacob - (b)Jonathan – (c)Josh –
Week 2		Analytical research.
		Feedback on the initial works
		1000hsr Monday 25th April Nick Croft (meeting)
		1030hrs Wednesday 27th April Ben Barker (Consultation)
		Completion of first draft of analysis.

Week 3	1500hrs Tuesday 3rd May Nick Croft (meeting) Community engagement and participation (dates to be confirmed) Reflection of feedback form community engagement Further Development of the document based on community engagement Consultation with Ben Barker
Week 4	1200hrs Tuesday 10th May Nick Croft (Meeting) Further research into community needs Community Consolation(s) Initial draft presentation of document to Ben Barker
Week 5	Response to feedback from Ben Barker Consultation 1000hrs Monday 16th May Community litter pick (to be confirmed) Delivery of Final Document Delivery of Final presentation; to community groups

Contact Details

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Aknowledgements

I wish to take this opportunity to gratefully acknowledge the assistance of all the residents and members of the community groups within AshtonVale, and The Greater Bedminster Community Partnership as a whole. Without you active support and your keen engagement and willingness for participation throughout this process.

A special thank you to;

David Johnson (Module Leader)

Nick Croft (Project Tutor)

Julie (Youth Club)

Jenny (School Governor)

Nick (AVT)

Pat (AVT)

Ricky (AVT)

Chris (AVT)
Ashton Vale's Primary PTA

Viv (AVPS Head teacher)

All of the members of AshtonVale Silver Social

Lew (Member of multiple groups)

All of whom that were in attendance of the final presentation

Most importantly a Sincere Thankyou to Ben Barker, who invited us to produce this research work and met with us frequently throughout the various stages of the projects development, your assistance was invaluable.

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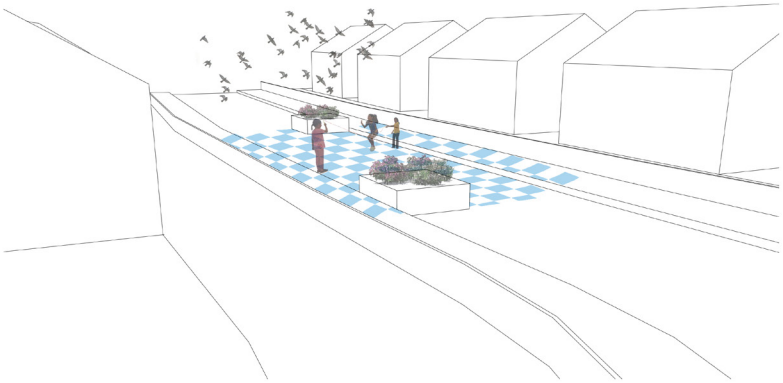
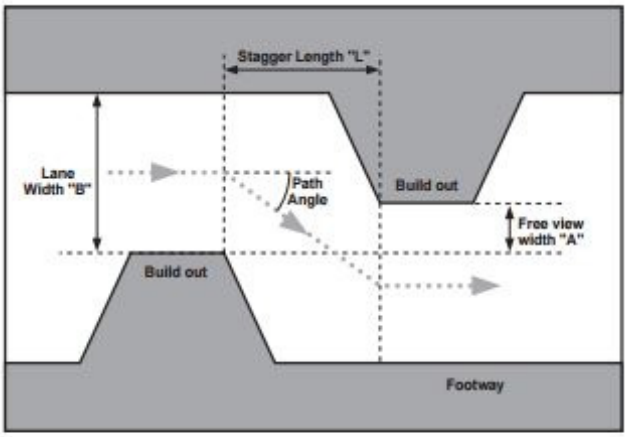
Indicative Proposals

DIY Streets





Free view width (A) – the width of the central gap between build-outs on opposite sides.

Lane width (B) – the average width between the build-out and the opposite kerb.

Stagger length (L) – the length between the start of the stagger on the offside and the end of the stagger on the nearside.

Path angle – the angle through which the traffic lane is displaced.

- Consult the Bristol City Highways Department first
- Sustrains is a local charity which can assist in the implementation
- Street Planters cannot be taller than 600mm
- Street Planters must not weigh more than 1 tonne
- Avoid drains and manhole covers when placing the planters
- If using trees the branches cannot be lower than 2000m from the ground.
- Insurance will be required
- The community Group is responsible for the maintenance

Table 6.1 Stagger length and car speeds

Lane width 'B' (metres)	Free view width 'A' (metres)	Stagger length 'L' to achieve required vehicle speed in chicane (metres)		
		15 mph	20 mph	25 mph
3.0	+1.0	6	9	14
	0.0	9	13	18
	–1.0	12	16	-
3.5	+1.0	-	-	11
	0.0	9	12	15
	–1.0	11	15	19
4.0	+1.0	-	7	9
	0.0	-	9	12
	–1.0	-	11	15

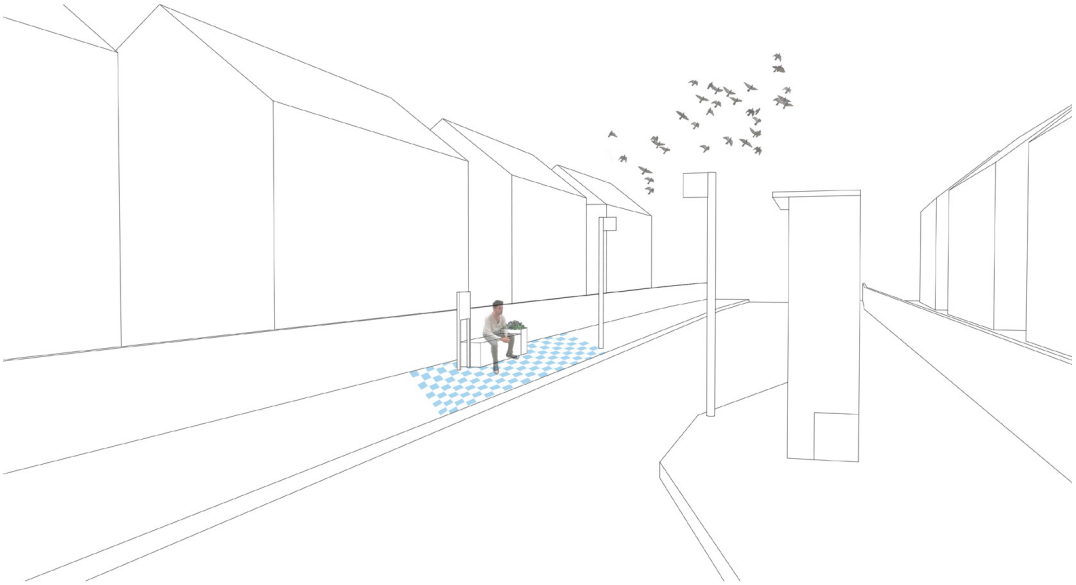
Indicative Proposals

DIY Streets

- Road surfaces can be painted consult the Highways Department prior
- If place on the Street to form a chicane, on the streets in Ashton Vale, if the Street is 4m wide, then the planters should extend from the pavement 1.5m the distance between the two chicanes should be 11m
- Chicane traffic calming systems are normally space every 70m to achieve the desired effect.
- Permission needs to be confirmed by the highways department prior to installation.
- If using thermoplastic paint use in moderation, otherwise the road surface will become too slippery when it rains.
- If deemed unsafe, poorly located, or not well maintained the local authority reserves the right of removal.

Indicative Proposals

DIY Bus Stops



- The community Group is responsible for the maintenance
- Road surfaces can be painted consult the Highways Department prior
- Permission needs to be confirmed by the highways department prior to installation.
- If using thermoplastic paint use in moderation, otherwise the road surface will become too slippery when it rains.
- Furniture cannot be placed directly on the desire lines of pedestrians, in another words furniture must be off centre from a path.
- Furniture cannot be located in a place that can aid would be trespassers, e.g. a bench should not be placed under an openable window.
- If deemed unsafe, poorly located, or not well maintained the local authority reserves the right of removal.

Indicative Proposals

DIY Bus Stops

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Indicative Proposals

Lavender
£6.99
Summer Flowers

Salvia Nemorosa
£5.99
From Summer to Autumn flowers

Sedum
£7.99
Late Summer early autumn flowers

Phlox
£8.99
Late spring to autumn flowers

Rudbeckia
£4.99
Late Summer early autumn flowers

Helenium
£7.99
Mid-Summer to early autumn flowers

Geranium
£9.99
Summer flowers

Dianthus
£9.99
Summer flowers

Japanese Anemone
£5.99
Late summer till autumn

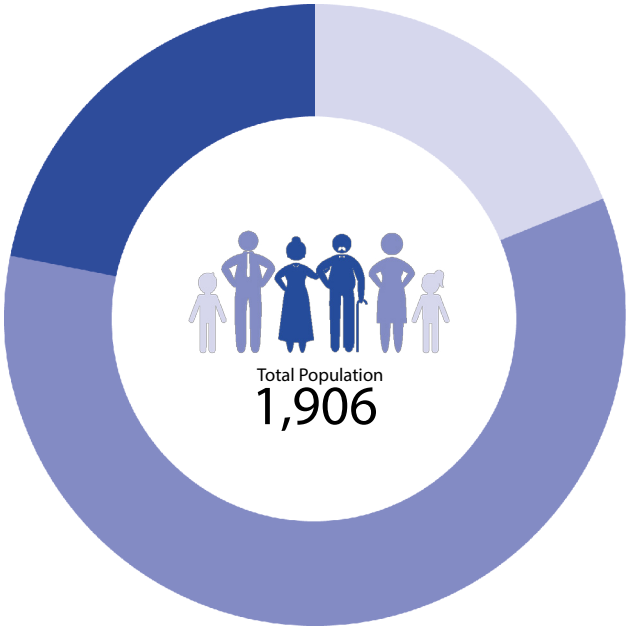
Tiarella
£8.99
March to November flowers

Penstermon
£5.99
Flowers June until the first frosts

Foxglove
£14.99
Mid-summer to autumn

- Because the local community group will be responsible for the maintenance it is recommend that perennial plants should be planted due to their low maintenance and long life.
- This is just an indicative list of plants with their respective average costs and when in the year they are in bloom.
- Be aware that if the plants grow to tall and are not trimmed the local authority retains the right and the responsibility to remove the planters on safety grounds.

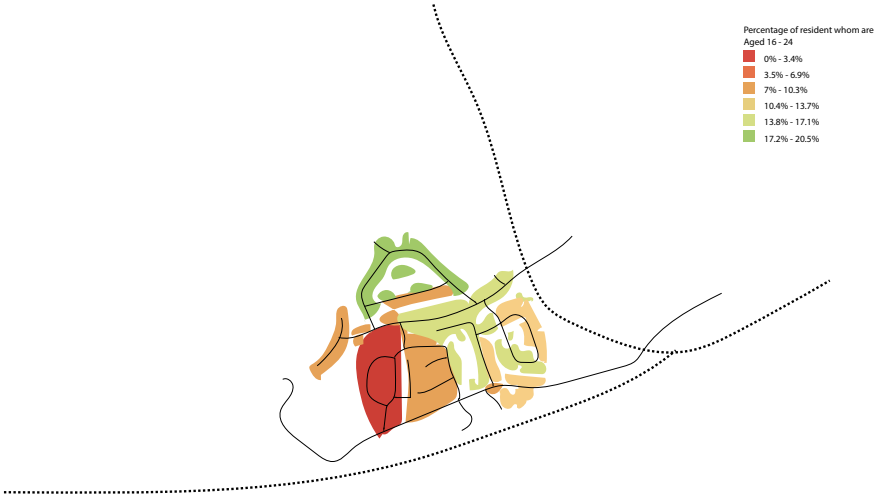
Demographics

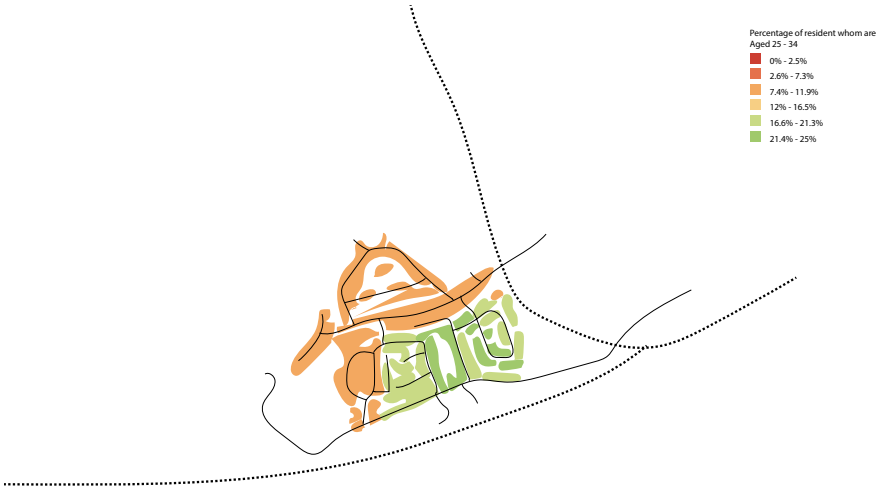


414 Older People
65 & over

1,130 of Working Age
16 - 64 year olds

362 Children
0 - 15 year olds





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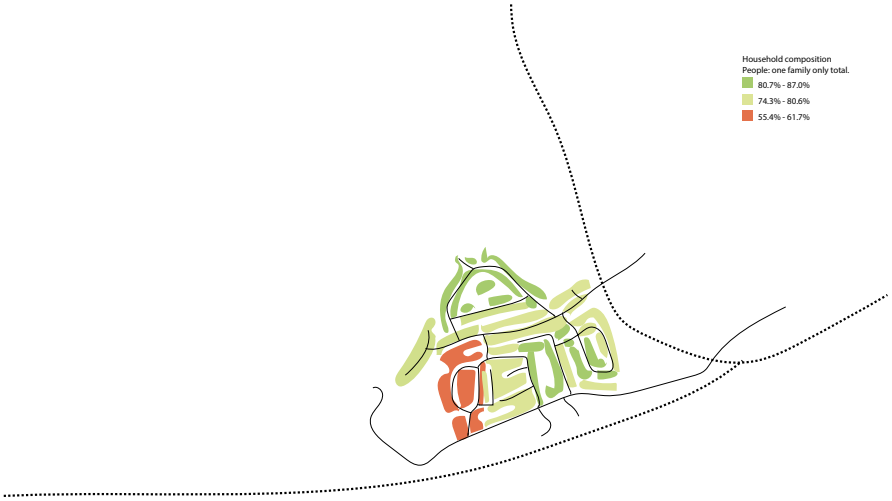

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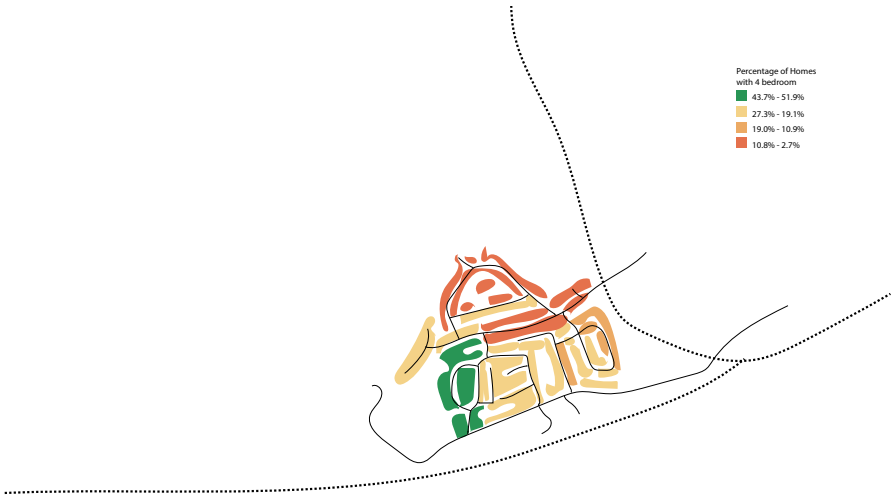

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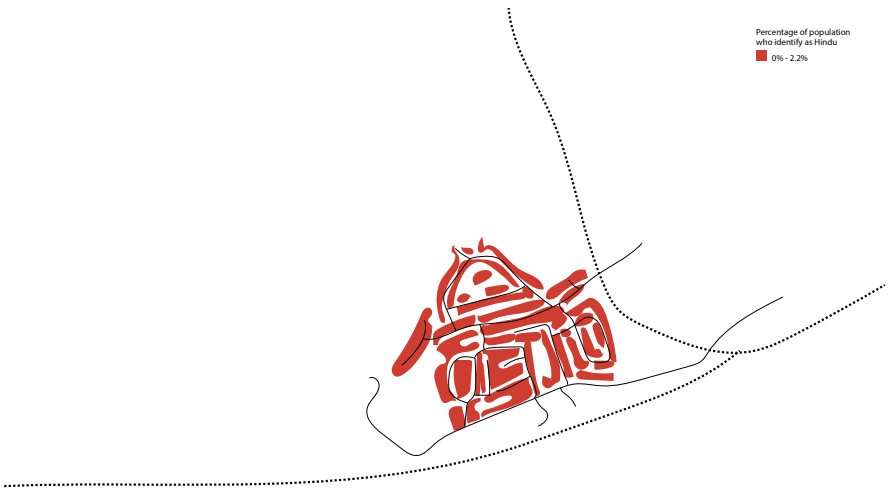

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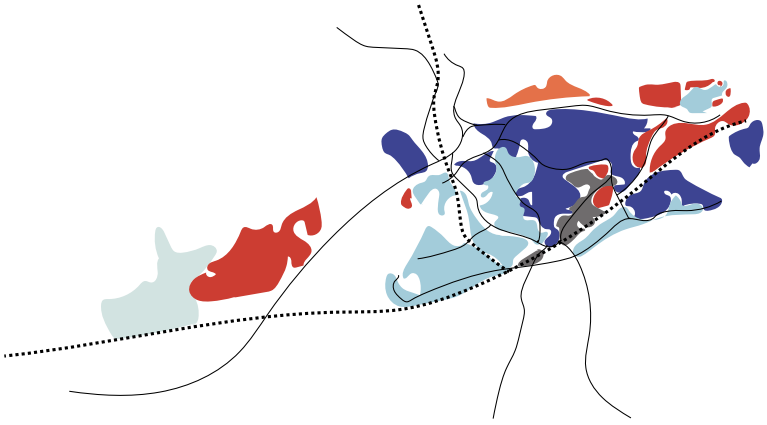

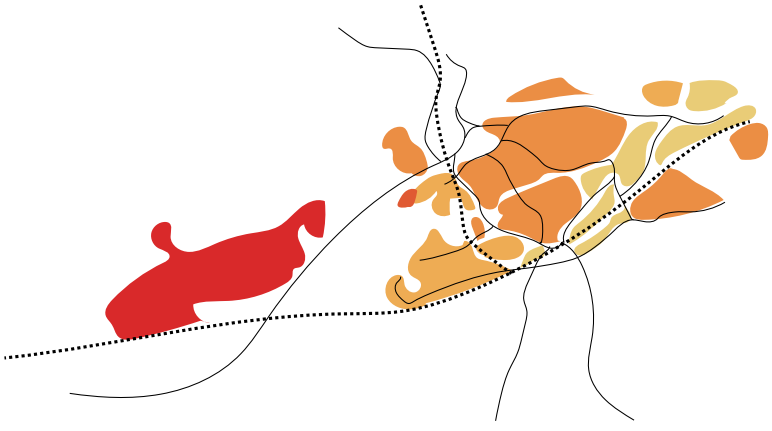

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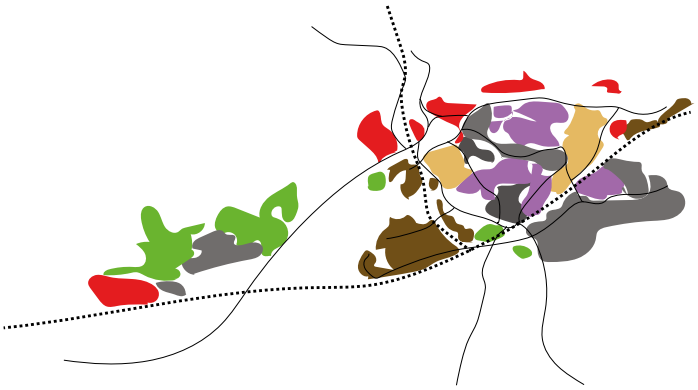
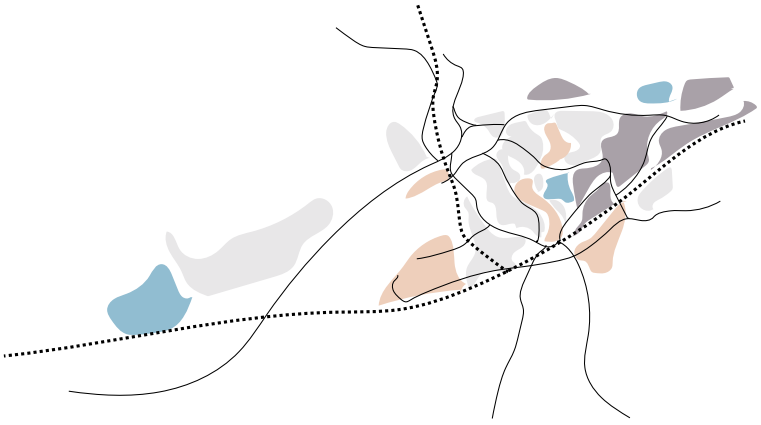
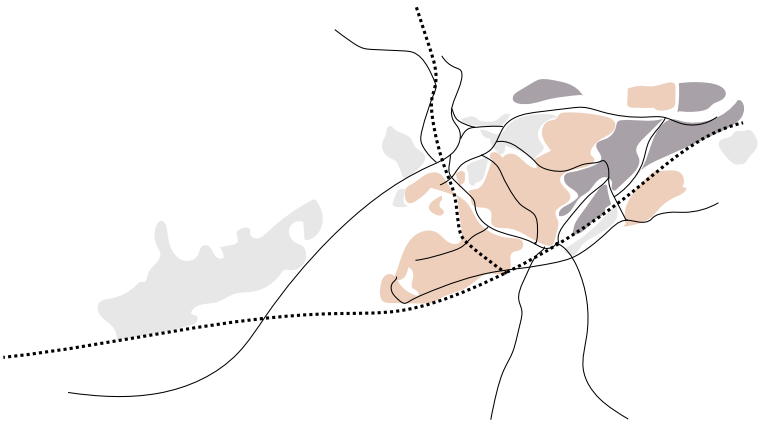


- Rural
- Servants of Society
- Metro Suburbs
- Retail
- Manufacturing and Distribution
- Suburban Services



Deprvation due to employment is reducing at a faster rate in the bluer areas

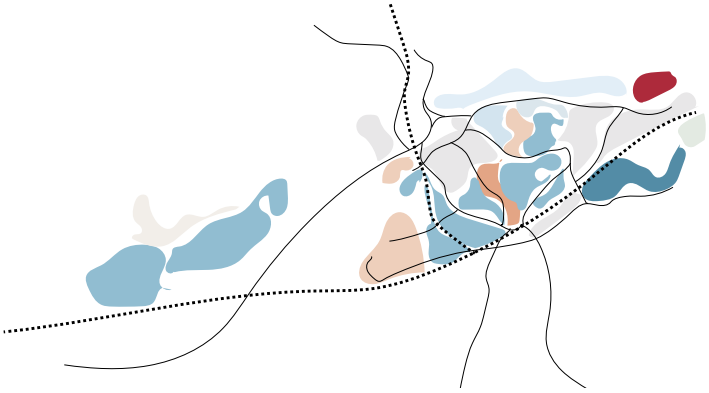
- Cannot Compare
- Data not available

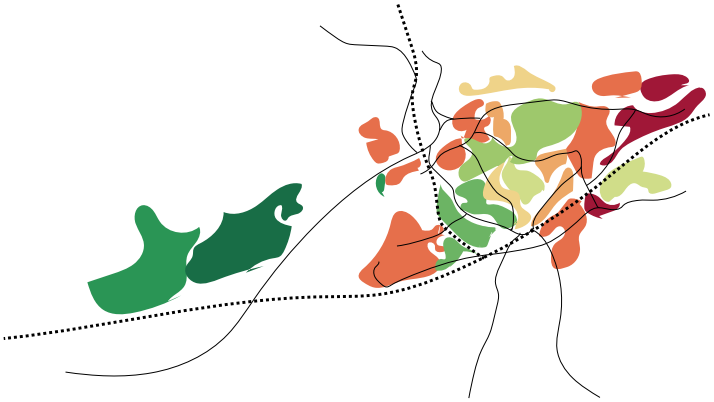


Deprvation due to the living environment is reducing at a faster rate in the bluer areas

- Cannot Compare
- Data not available

Demographics





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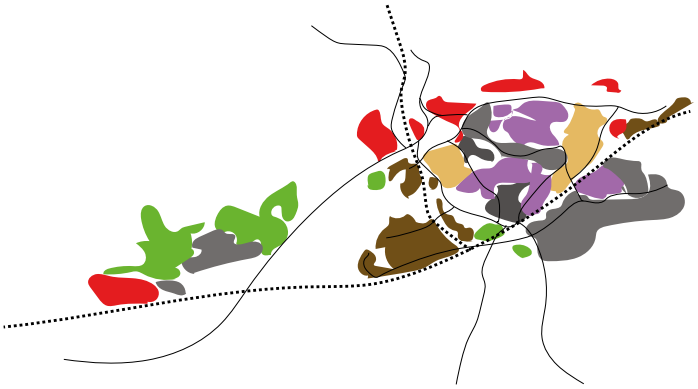
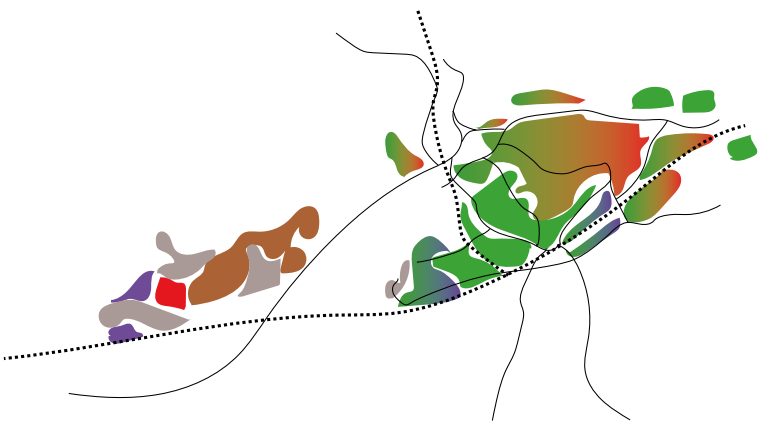




There must be a risk assessment along with a method statement produced prior to their installation to enable their installation, and anybody who is working of their installation must wear appropriate Personal Protective Equipment (PPE). (Dowling, J 2016)

Consideration should also be given to appropriate public liability insurance being in place for anyone working on the project, as the City Council cannot be put in the position where it could be liable for the public working on the highway and/or as a result of their actions be held liable for damage or injury to themselves or others. (Dowling, J 2016)

Planters need to weigh less than a tonne and to be located as to avoid any utility service covers in the road or footway. (Dowling, J 2016)

There is no definitive policy on painting road surfaces. Whilst it may not require full Highway Authority Approval it is necessary to state certain information on any proposal, such as the type of paint and the extents of the markings proposed. Some of the issues that the local highways authority we need to receive information on to appraise the solution to its full, are (Dowling, J 2016);

- Is there potential for trip or slip hazards (thermoplastic paint can be particularly slippery for footpaths in damp conditions). (Dowling, J 2016)
- Maintenance issues (the local authority does not have the capacity to maintain the markings when they fade, or are dug up by utility companies, and laying the markings itself may damage the road surfaces). (Dowling, J 2016)
- Street scene and de-cluttering (the local authority has general policies on reducing lining and signing in Bristol, to reduce street clutter). (Dowling, J 2016)

DIY STREETS

DIY Streets is a concept that was developed by Sustrans a Bristol based charity which encourages local community groups to generate their own ideas that can help improve of their own streets. The idea aims to make the street a less car dominated space, and create more anthropic community focussed space. Typically, this involves creating dissembling the formality of the streets, with artworks in the road and plants or trees. Wooden flower beds or tree plant pots known colloquially as 'planters' are placed in the road to calm vehicle traffic. DIY streets can also incorporate physical traffic calming measures, such as chicanes or narrowing, however this would significantly increase costs. (Traffic Choices 2014)

There are some advantages to developing a DIY Street scheme as an alternative to more traditional methods of traffic calming;

- Community input helps to maintain support for the project (Traffic Choices 2014)
- Cheaper than more traditional methods, as ideas are generated by the community, and plants should be maintained by the community (Traffic Choices 2014)
- Artwork and planters should not attract an objection from the emergency services (Traffic Choices 2014)

There are however some disadvantages;

- There is sometimes issues of on-going maintenance of planters etc.

- they must be maintained by the community for the Council to be supportive (Traffic Choices 2014)
- Normally used on small sections of residential road. Money may be better spent on busier sections of road (Traffic Choices 2014)

The normal restrictions that are associated with DIY Street projects include;

- DIY street designs must be discussed with Highways engineers at Bristol City Council at an early stage. Art work must conform to certain colours, and must not conflict with existing road markings (Traffic Choices 2014)

All schemes are at the discretion of Highway engineers at Bristol Council. They will:

- Check the scheme will work correctly on the road (Traffic Choices 2014)
- Ensure the scheme is safe (Traffic Choices 2014)
- Assess for any unintended consequences (Traffic Choices 2014)
- Check the scheme is compliant with Highway regulations (Traffic Choices 2014)
- Calculate a more accurate estimate of scheme cost (Traffic Choices 2014)

Maintenance

Many schemes will have an on-going maintenance cost, the local authority is not able to accept any maintenance responsibilities for community funded (or similar) planters or street greens which are introduced on to the public highways. (Traffic Choices 2014)

If the planters or street greens become damaged or are deemed to be dangerous for any reason, they will be removed from where they are located and not replaced. (Traffic Choices 2014)

Effects of narrowing a road

The most probable effect that placing objects in the road, such as planters, is most likely to achieve is a reduction in traffic speeds, because the carriageway will be narrowed, and vehicles may have to give way to each other. (Traffic Choices 2014)

Therefore planters might be expected to have a similar effect to road narrowing. Road narrowing simply implies reducing the width of the road. This can be achieved in a number of ways, the technique normally used in Bristol involves extending the curb at a junction entrance with a bollard on each side however this can be costly and may take a long time to implement, therefore a cheaper alternative can be placing planters onto the carriageway this can be an easier method to implement. (Traffic Choices 2014)

Motorists will need to drive more carefully because narrowed section of road to keep their vehicle in the correct road position, which may result in slower vehicle speeds, especially if there are moments generated where motorist have to stop to let others pass. (Traffic Choices 2014)

Narrowing a road targets a specific part of the road, this means that the affect can be localised around high risk areas such as outside of a school. (Traffic Choices 2014)

This method can be used on junctions, such as corners in residential neighbourhoods this will reduce their turner circles forcing a motorist to approach a corner slower with a greater level of

caution. (Traffic Choices 2014)

Can reduce vehicle parking by reducing the presence of available space to park a car, alternatively changing the way Cars Park on the street can also have a narrowing effect. (Traffic Choices 2014)

By reducing the velocity of vehicles the method can make it easier for pedestrians to cross a well-used carriageway, as well as reducing the distance that a pedestrian has to walk. (Traffic Choices 2014)

Because a reduction in road width is not a direct obstruction emergency vehicles should be able to pass through without slowing down. (Traffic Choices 2014)

This method won't be as effective as vertical treatments, such as installing a speed bump to reduce speeds; however it is easier to implement, especially through a DIY Streets scheme, as speed bump can only be implemented by the local authority. (Traffic Choices 2014)

Cyclists however may feel intimidated by some vehicle drivers' behaviour at road narrowing. (Traffic Choices 2014)

Generally, horizontal treatments - such as road narrowing - are expected to reduce accidents by around 29% (Traffic Choices 2014)

Road narrowing should not be used on roads or junctions with any heavy goods vehicle traffic or larger vehicle such as buses, otherwise the scheme could be deemed unsuitable for the location. (Traffic Choices 2014)

Effectiveness of chicanes

Single lane chicanes is a method that requires one direction of traffic to give way to oncoming vehicles. The chicane normally consists of a raised curb and bollard in one half of the road, with a sign to explain the vehicle traffic priority. For the lane without traffic priority, there are Give Way markings and hatching on approach to the chicane. If this method is applied to a DIY Street scheme the road sign may still need to be installed. (Traffic Choices 2014)

Groups of chicanes are normally placed with alternating priority down a road, so that each direction of vehicle traffic may have to stop and give priority in equal amounts, research has shown that space the chicane at roughly 70m apart on a continuous straight is the most affective spacing to ensure that vehicles travel consistently at 20mph(Traffic Choices 2014)

This method does not cause as much vehicle passenger discomfort as vertical treatments such as speed humps, however if they are placed to frequently they can cause discomfort through creating a swaying motion. (Traffic Choices 2014)

Most chicane designs allow cyclists to bypass them, an approach which varies itself from the technique of narrowing the roads carriageways, where cyclists can be intimidated by other road users. (Traffic Choices 2014)

Emergency vehicles may be able to travel faster around a chicane compared to vertical treatments, however there speed can still be reduced; chicanes should be avoided on distributor roads, as they can otherwise reduce response times for emergency vehicles. (Traffic Choices 2014)

Motor vehicles with priority are not required to reduce their speed, this can however be countered by implementing a chicane system which is a two lane system which forces a car to slow to

20mph due to their angles and proximity. (Traffic Choices 2014)

Motor vehicles without priority are not required to reduce their speed if there is no oncoming vehicle approaching, therefore if the traffic calming system is to located on a residential street which doesn't experience a high frequency of traffic, and the main concern is the velocity which vehicle traverse through the neighbourhood, than it may be more appropriate to use a two lane system. (Traffic Choices 2014)

Motor vehicles without priority may race to the chicane before an oncoming vehicle approaches, or swerve dangerously around the chicane (Traffic Choices 2014)

This system may cause long delays if there is increased vehicle traffic, or located on a major distributor road. (Traffic Choices 2014)

Buses without priority will find it more difficult to find a gap in vehicle traffic and drive around chicanes, subsequently this system is not the best for routes which is used as major bus link. (Traffic Choices 2014)

Chicanes could create motor vehicle noise which is heard in residences nearby, as many vehicles will be stopping and starting. A greater distance between chicanes and residences will reduce this problem. (Traffic Choices 2014)

Some traffic is likely to transfer onto alternative routes, potentially causing a problem somewhere else. (Traffic Choices 2014)

Chicanes are a horizontal treatment, which are generally expected to reduce accidents by around 29%. (Traffic Choices 2014)

Vehicles are likely to travel at around 21mph through a single lane chicane. Between chicanes, vehicles are likely to travel at 23mph. (Traffic Choices 2014)

Vertical treatments - such as speed cushions or speed tables - are more effective at reducing speeds. (Traffic Choices 2014)

Artwork in the road is called "psychological traffic calming". It is believed that personalising the street in this way will cause vehicle drivers to slow down, and respect the road as a community space. This approach is not too dissimilar to standard road marking which give the illusion of less space for drivers which subsequently will aid in the overall reduction of speed of traffic, and the way in which vehicles use the space of a road. (Traffic Choices 2014)

One technique often employed by the local highways department is reducing the width of the lane for car drivers by adding an additional line inwards from the curb, so that both lanes of car traffic are moved towards the centre of the road. The space between the line and the curb is hatched with white lines. This technique is called 'peripheral hatching'. (Traffic Choices 2014)

Another technique on a two way street is removing the centre line, which is simply removing the white dashed line in the middle of the road, this can be an effective method because it removes the security that there won't be oncoming traffic in a drivers lane, thus the driver is compelled to drive more cautiously. (Traffic Choices 2014)

Painting the road surface does not introduce discomfort to motor vehicle drivers, it can be relatively cheap compared to purchases planters, and it does not reduce accessibility for emergency

vehicles or buses, however peripheral hatching could be ignored by some motor vehicles drivers, who might still drive in this space and removing the centre line may cause some confusion to motor vehicle drivers. (Traffic Choices 2014)

Peripheral hatching can reduce vehicle speeds by around four percentage points. If a vehicle is travelling at 30 miles an hour, peripheral hatching would normally reduce speeds by at least 1.2 mph. (Traffic Choices 2014)

If the centre line is removed, this removes motor vehicle driver's feelings of 'designated space' for them to drive in. They may expect other road users to enter their path, or make an unexpected manoeuvre. This is more likely to cause motor vehicle drivers to slow down as a precaution. (Traffic Choices 2014)

Centre lines should not be removed when traffic speeds are greater than 30mph, even if it is within a designated 20mph zone, therefore areas which experience an average speed of greater than 30mph should considered a composite of traffic calming measures prior to considering the removal of the centre line. (Traffic Choices 2014)

Peripheral hatching can only be used on relatively wide roads e.g. 12 meters, the roads within AshtonVale are only 4m wide therefor peripheral hatching may not be appropriate but other street painting can be used. (Traffic Choices 2014)

Centre line removal should not happen near one-way streets, as this can produce confusion as to where the one way street starts and finishes. (Traffic Choices 2014)

Planters may be more appropriate than peripheral hatching on roads residential streets, however road painting can be used as an approach of signify an alternative anthropocentric road hierarchy. (Traffic Choices 2014)

Estimated Costs of Removal of centre line work to be carried out by the local authorities: £400 for 250 meters (Traffic Choices 2014)

Peripheral hatching work to be carried out by the local authorities: £1,300 for 100 meters. (Traffic Choices 2014)

National Policy Overview

When there is a speed limit reduction there has been a proven correlation of a 5% reduction in traffic accidents per every mile the speed gets reduced by (see appendix 1, paragraph 1.3.2 of policy) there has also been in some cases a reduction of 60% – 70% in some areas due to a reduction of traffic speed of 9mph.

A major limitation of traffic calming measures is the popularity or often lack of popularity (see appendix 1, paragraph 1.3.3. of policy), if a traffic calming scheme is deemed unpopular with local residents and stakeholders then the local authority may be more hesitant in implementing a scheme, thus in order for a local community group to request a schemes implementation, they have to first demonstrate either high demand and/or a substantial need for a traffic calming scheme.

- A high demand can be demonstrated through the use of a petition; a petition is generally more successful when connected to a major/popular community group/ facility, e.g. a school, or major retail unit.
- A high need is often demonstrated through the rate of accidents that occur.
- There are two principle methods of ensuring that there are no contentious issues raised between stakeholders and community groups,

    1. Avoidance; insure that the group petitions for traffic calming on routes or on parts of routes, which are not used by stakeholders other than that of the community group.
    2. Convergence; if the routes where traffic calming is required is also a route which is used by stakeholders other than the community group, the community group which is lobbying for the traffic calming measure, should contact the local stakeholders, inquire what would be an acceptable approach by the stakeholders, what are their main concerns, and attempt to find a consensus where the community group can still petition for a traffic calming measure to be implemented, whilst ensuring that it won't be campaigned against by alternative groups.

The Transport Act 2000 enables local authorities the option to designate streets into Homezones or Quiet Lanes: Homezone designation means that the streets do not have pavements and the road is used as a shared space between traffic and people, with the presents of passive traffic calming infrastructure, a Quiet lane designation means that the road is a primarily rural road, with little traffic and is suitable to be used by motorists, cyclists, and pedestrians alike (See Appendix 1, Paragraph 2.1.14) however this is a long and costly process and it needs to be demonstrated that it is priority, and that there is local agreement for a Homezone or Quiet Lane designation to be implemented along with sufficient funds being available.

Traffic calming measures are a vital aspect of local road safety strategies, the local authorities are encouraged to cooperate with local schools and groups to develop a safe method of accessing schools and other major facilities safely (see appendix1 paragraph 2.2.1.) particular attention should be given by

local authorities to areas where children are likely to be playing or where there are high casualty rates.

Nationally there is a strong movement towards greater prioritisation of sustainable transport methods, currently local authorities are supposed to be encouraging alternatives to the car especially within residential areas (see appendix 1, paragraph 2.4.7) there is a policy that suggests this should be achieved through traffic calming methods and the creation of Homezones in new and when applicable existing residential neighbourhoods should be developed where applicable.

Walking is encouraged as a major mode of transport the government has made it clear that local authorities are to use measures which help to calm traffic and encourage pedestrian and cycle activities (see appendix 1, paragraph 2.7.1.)

There is research in both the UK and the Netherlands which suggests that there is a reduction of accidents of 63% in areas where 20mph zones have been introduced (see appendix1, paragraph 2.7.2.) in areas where the introduction of a 20mph speed has been proven to be in affective due to a lack of compliance traffic calming measure can be introduced to have this affect.

When traffic calming measure are placed careful judgement and consideration should be made as to where measure are placed, when locating a traffic calming measure the group campaigning or authority whose enforces a measure should locate the traffic calming measure where pedestrian frequently cross, whilst bearing reference that pedestrians will normally cross where it is most convenient for themselves and not always where a measure is introduced. (See appendi1, paragraph 2.7.3)

It has been shown that since the introduction of 20moh zones within the U.K. traffic accidents concerning children has fallen by 70%, (see appendix 1, Paragraph 2.7.11), if a 20mph zone is not followed and it can be proven that there is a risk towards children in the area, there is a strong case to be made for the introduction of traffic calming measures, these measure could form part a school travel plan for developing Safer Routes to Schools Scheme (see appendix 1, paragraph 2.7.12)

The aesthetics of traffic calming methods can be of great importance for the local residents, (see appendix 1, paragraph 2.10.7.) this can be due to their presence is located directly on the door step of a resident, and thus they have to interact with the traffic calming scheme on a daily basis, therefore it should be considered best practice, gather a collective consensus between residents to the type of traffic calming method adopted, this can be more easily achieved if the scheme is a community based DIY Streets scheme.

For a list of relevant good practice methods of implementation, referrer to appendix 1, paragraph 2.10.11.

There is evidence that traffic calming schemes have a positive effect on the levels of children's independent mobility, (see appendix 1, paragraph 2.11.1.) this can be specifically pertinent to areas with a large demographic of children of school age, and areas which contain schools. (see appendix 1, Paragraph 2.11.2). There is also evidence to suggest that children are more likely to independently interact with other children on the streets (see appendix 1, paragraph 2.11.3.) along with an increase in children playing with each other locally, there is also accounts of

pedestrians feeling more comfortable to cross the road. A Study in Scotland found that residents in a neighbour where a traffic calming scheme has been implemented, there can be a 28% increase in people walking and 15% increase of cycling, whilst the residents also reported that they would be more willing to allow their own children to cycle (see appendix1, paragraph 2.11.4.)

Research has shown that by designating an area as a 20mph zone, has a limited effect on the overall speed of traffic within an area, when the average speed of traffic is already around the 24mph or below level, (see appendix 1, paragraph 3.2.9) however if the average speed reached by traffic is above said level, than enforcement of a reduced speed limit often required this can be achieved through passive systems such as traffic calming measures.

Most 20mph zones require traffic calming features which can be implemented, to ensure that the desired speed limit is kept, (see appendix 1, paragraph 3.2.16) however there is not a one size fits all approach which can be taken to enforce traffic calming on all streets, in some cases speeds may not change on some street types if a not suitable method is implemented, therefore it can be necessary to contact an external specialist on traffic calming measures, to ensure what the local community groups requests is applicable to the area that it is proposed.

This being said, there is evidence to suggest that narrowing's are generally the more effective approach that can be taken, which has led to some advocates to campaign for most residential to have streets narrowed, to emphasise the sense that the streets are for people (see appendix 1, paragraph 6.1.8) an increase in pedestrian space on the streets can result in the placement of a greater level of street furniture for local residents.

Chicanes do produce a general decline in in accidents there are occasions when vehicles have collided with a chicane, causing either just damage and no injury and sometimes injuries, in order to avoid accidental collisions with chicanes, there needs to be a vertical element to the chicane and not just a kerb, i.e, the chicane should be extruded to a height no greater than 600mm, the chicane must be illuminated of contain reflective surfaces to insure night-time visibility. (see appendix 1, paragraph 6.4.9)

National Policy Overview

The department of transport has concluded that the angle that a chicane produces has a direct effect on the speed that a vehicle is capable of reaching, (see appendix 1, paragraph 6.6.5.), the average street widths in Ashton Vale are roughly 4m, under the guidelines given, if a build out e.g. the chicanes were 1.5m wide thus permitting a 1m visibility gap, the chicanes would have to be of a space of 7m apart, to insure that the average vehicle speed would be reduce to 20mph, thus enforcing the speed limit.

The height of any of the traffic calming measure should not exceed 600mm, especially when there is the possibility of children crossing (see appendix 1, paragraph 6.6.8) planters can be used to enhance the streetscape whilst functioning as a traffic calming system, however it is important that they do not exceed the height of 600mm, alternatively trees can be used providing they do not restrict visibility. (see appendix 1, paragraph 6.7.8)

Chicanes along with any other horizontal traffic calming scheme are not likely to produce an increase in vehicle noise, which can be seen in vertical traffic calming schemes such as speed bumps (see appendix 1, paragraph 6.7.5.) however, the stop start nature that horizontal traffic calming schemes produce, there can be an increase in local emissions, (see appendix 1, paragraph 6.7.7.) however due to the low traffic level within Ashton Vale such an increase likely to be minimal.

Painting of the road surface can be used as a method of discouraging the drivers from overtaking, or to reduce a vehicle's speed by given the driver the impression that the road is narrower than it actually is. (see appendix 1, paragraph 10.2.9) Coloured road surfaces when acting as an isolated scheme can have a very limited effect on the speed of road users, (see appendix 1, paragraph 10.4.4) but there can be positive overall if combined with another scheme, for instance a village traffic calming scheme in Charlwood a change of the imprinted road surface led to an overall reduction in the average road speed, (see appendix 1, paragraph 10.4.6) however the visual aesthetic should also be considered, when implementing a scheme which does change the road surface markings there should be sensitivity to the local streetscape, otherwise there could be a negative visual impact to the locality. (see appendix 1, paragraph 10.5.1)

Planters and trees have been used commonly throughout continental Europe, has a mode of traffic calming alongside other forms of street furniture (see appendix 1, paragraph 10.2.16) they have also been used throughout the U.K. recently and can be seen in parts of Bristol. In order to discourage vandalism community ownership should be encouraged, for example in the Morice Town HomeZone in Plymouth large planters were used as chicanes which lead to residents to creating their own community groups based around the maintenance of the planters (see appendix 1, paragraph 10.2.17)

It is important when using planters as a method of traffic calming that the plants do not prevent a driver from being able to see pedestrians, especially children. As a general busy plants at a height between 60mm and 2000mm should be avoided. This does not prevent the use of trees, provided that the canopy is above 2000mm from the ground. (see appendix 1, paragraph 10.2.18) Trees and shrubs have the added benefit of increasing the physical appearance of scheme which can also help to aid the community acceptance of and encourage residents to develop a sense of ownership of the scheme (see appendix 1, paragraph 10.5.4)

The department of transport has produced a general comparison of the advantages and disadvantages of a chicane system.

Advantages:

- Less discomfort than road humps to occupants of large buses and commercial vehicles.
- Less delay to fire appliances.
- Effective speed control device, but not quite as effective as road humps.
- Chicane width and path angle through chicane can be used to influence the speed of vehicles through a chicane.
- Chicane dimensions and spacing can be varied depending upon the road type and 'target' speed required.
- Wider chicanes can be used to reduce discomfort to passengers in buses (including articulated buses) and ambulances. However, this is likely to increase the speed of cars.
- Chicane layouts can be varied to suit road width.
- The use of chicanes may remove some through traffic but the effect on traffic flows on roads with chicanes may be small (about 7–15 per cent overall).
- Different colours and materials can be used to increase effectiveness and offer greater opportunity to improve the street scene with planting.

Disadvantages:

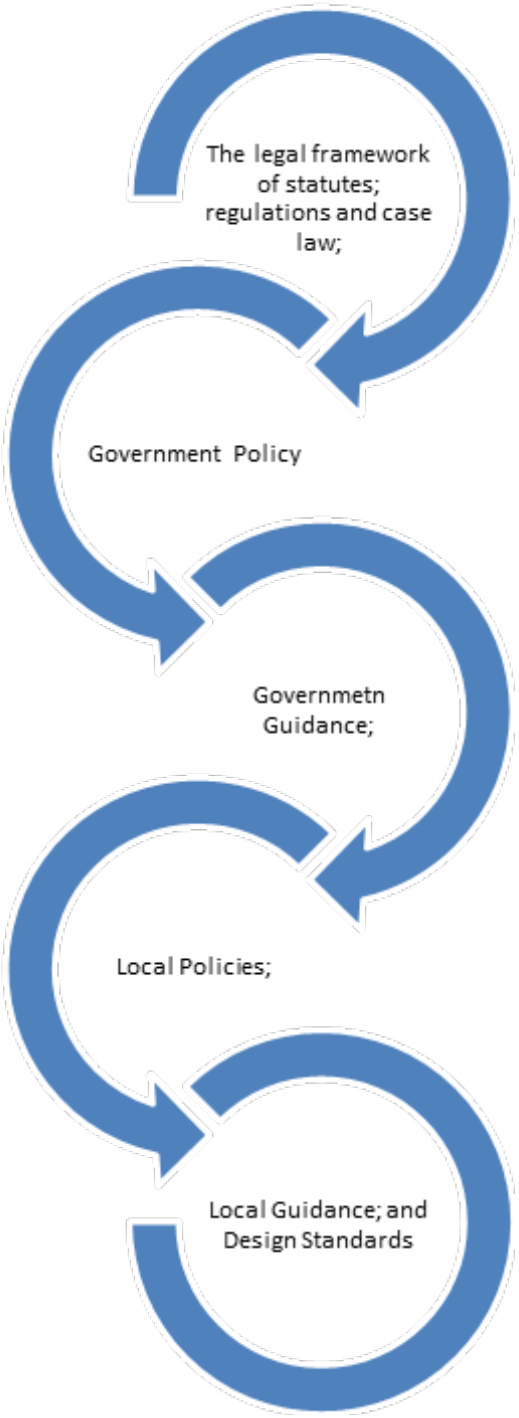
- May not reduce speeds of two-wheeled motor vehicles.
- Discomfort may be experienced by passengers in buses and ambulances. The degree of discomfort varies between vehicles and is governed by vehicle type, vehicle wheelbase, vehicle speed and chicane dimensions.
- Large vehicles may have difficulty, and cause damage, if chicane dimensions are too restrictive. Alternatively, chicanes designed to accommodate wider vehicles are unlikely to have the desired speed reducing effect on cars.
- Drainage can be a problem.
- Chicanes may interfere with accesses if not designed properly and the number of on-street parking spaces for vehicles may be reduced.
- Noise and vibration levels may be a nuisance at locations adjacent to chicanes, where there is a significant flow of commercial vehicles in the traffic stream, especially if the commercial vehicles have an overrun area.
- Some car drivers may drive on the opposite side of the carriageway to obtain the 'racing line' through the chicane.
- Chicanes can be unpopular with some residents due to concern about the speed of motorcycles, fear of collisions through the chicane due to drivers travelling in the centre of the road, reduction in parking and difficulty in using accesses. Traffic Calming 127
- Chicanes need marking, signing

and lighting. All of which should be checked regularly to minimise any vehicle collisions with kerb build-outs.

- Chicanes without cycle bypasses can be intimidating for cyclists.
- Streets fitted with some types of chicanes are not visually attractive.
- Vehicles travelling at inappropriate speeds can damage bollards, planters and the build-outs themselves. This can lead to a scheme looking untidy and high maintenance costs.
- Narrow chicanes on roads where there is high traffic flow may cause localised congestion.

It is important to note that there are two types of highways, 'streets' and 'roads', the main distinction between the two is that a road main function is the circulation of traffic, and a street is principally a place which is traversed (see appendix 2, paragraph 2.2) it is important for a street to be readily identified as a place, otherwise a street can be seen by the residents upon a 'street' as a 'road'.

The legislation, policies and guidance, that surrounds the design and layout of highways can seem complicated, which often forces a tendency to some designers to treat the rules as a fixed dogma which cannot be broken without breaking the law, (see appendix 2, paragraph 2.5.1) however on the small scale level of a community group legislation is not something which should discourage a group from making an intervention, the legislation, policies and guidance, are structured as diagramed:



The level that a small community group should engage with legislation/policy/guidance is at the local level, which means for the case of Ashton Vale's community groups, Bristol City's Highways department, they are the street level bureaucrats which hold the authority to access based on the national level guidance given whether or a not a scheme is permissible. (see appendix 2, paragraph 2.5.5) under this framework

the local authorities hold a significant amount of discretion which can enable them to develop a truly unique local approach.

The choice to walk is not only based on the distance which people have to negotiate it is also based on the quality of the route, if a route doesn't seem welcoming it can be discouraging for pedestrians (see appendix 2, paragraph 6.3.1) this can also prevent pedestrians from engaging in other activities such as, children playing, socialisation on the streets, walking children in push chairs etc. (see appendix 2, paragraph 6.3.2.) therefore in order to encourage a greater level of street based activities between residents beautification is a vital tool that could be used.

The kerbed separation of footway and highway can offer protection to pedestrians from motorised vehicular transport, however the separation of walkways, can also pose a threat to pedestrians crossing the roads, this can be in part due to the hierarchical structure that this can produce, kerbs tend to give explicit priority of the carriageway to vehicles (see appendix 2, paragraph 6.3.15) ways that such a situation can be mitigated can included raiding a road surface/lowering a pavement, painting a road surface and introducing planters.

An environmental factor which can be off putting to pedestrians is traffic, if there is road or street which is dominated by a car pedestrians could be inclined to avoid to route (see appendix 2, paragraph 6.3.17) pedestrians like to feel safe about the environment that they walk within and if they are not given priority of a space they may choose to avoid said space, like wise crime is another factor that can be off putting however, it is not the presence of crime itself it's the idea that it occurs, this can be avoided if, the pedestrian friendly routes are, overlooked by habitable rooms, other pedestrians are present, there is no evidence of crime through vandalism of street furniture, the streets are kept clean and tidy, they cannot be trapped e.g. more than one entrance/exit.

A 20mph maximum speed is the normally the objective for a residential neighbourhood, this is because of the reduction of risk to residents that can be generated is considerably less than that of a 30mph zone, in addition to a reduction of risk there is also a reduction of noise and intimidation to cyclists and pedestrians in terms of hierarchy of use. (see appendix 2, paragraph 7.4.2), this can be achieved through traffic calming schemes as a methodology of passive enforcement, there is evidence to suggest that for a traffic calming scheme to be effective on a continuous stretch of road containing no junctions the scheme should be replicated at interviews of 70m (see appendix 2, paragraph 7,4,3) this will ensure a continuous flow of traffic but at a restricted speed of 20mph.

A reduced visibility has been shown through research that reductions in forward visibility are associated with reduced driving speeds (see appendix 2, paragraph 7.4.4) therefore the chosen method of traffic calming should involve interference with direct sight lines, e.g. the traffic calming methods should be an object located on the road surface.

Street features and human activity can have an influence on the speed at which people choose to drive. (see appendix 2, paragraph 7.4.4) Research suggests that features likely to be effective include:

- Edge markings that visually narrow the road and subsequently reduced

carriageway width
- Obstructions in the carriageway; such as chicanes.
- features associated with potential activity in, or close to, the carriageway, such as pedestrian refuges
- on-street parking, particularly when the vehicles are parked in echelon formation or perpendicular to the carriageway
- pedestrian activity
- The presence of shops and local cafés.

"A street with a 20 mph limit is not the same as a 20 mph zone. To create a 20 mph zone, it is a legal requirement that trafficcalming measures are installed to ensure that low speeds are maintained throughout. In such cases, the limit is signed only on entering the zone, and no repeater signs are necessary" (see appendix 2, Paragraph 7.4.6)

The presence of street furniture, such as seating of features which can be secondarily used as seating such as planters, increase the amount of human activity on a street (see appendix 2, paragraph 10.1.3) seating is necessary to provide places of repose for pedestrians especially pedestrians who have mobility issues, it is considered best practice to locate seating in areas where people are likely to congregate, such as near local schools, shops, squares, and bus stops (see appendix 2, paragraph 10.2.3) street furniture should be located either, on a build out (see appendix 2, paragraph 10.2.4), or aligned against a rear edge of a path, but not so as to create climbable access into a property (see appendix 2 paragraph 10.2.6.) this is to ensure that a pedestrians desired route of travel is not inconvenienced.

Interviews

Silver Social Interview

Q1. What are your ages?
81 82 79

Q2. What are your genders?
Female Female Female

Q3. What is your marital/relationship status?
We are three Widows

Q4. Are you employed? (if so, what type? Part-time etc.)
We are all Retired

Q5. What are your hobbies/interests? (Where do you fulfil these?).
Crosswords at home.
Miniature Railway at Ashton court estate.
Reading & Cooking at home.

Q6. Do you have any pets? (if so, where do you take them?).
N/A

Q7. Where do you shop?
- Sainsbury's
- North Street
- M&S
- Anywhere via the 24th bus.

Q8. How do you travel?
Bus, Walking, and the Occasional Taxi.

Q9. Where would you take a friend for a drink?
- I would take to my Home
- We would go to Broadmeed
- Azzuza in the galleries in the city centre
- North Street the tobacco factory
- Sainsbury's has a café
- Thornbury Castle for celebration tea.

Q10. Where would you go for social activities?
- Linkage; at the youth centre, Southville Dance, Cooking at Salem Chapel,
- Church of England Fellowship.
- Bristol Older people Forum
- Greater Bedminster forum
- Quiz – Monaca Wills

Q11. How long have you lived in Ashton Vale?
Since 1974, since 1962, Bedminster 82 years

Q12. Do you know your neighbours?
''the neighbours on one side I can go into their house, we can even share house keys, the other side I haven't entered their house"
I'm familiar with them just not close with them
My neighbours rent so I don't see them long enough to get to know them.
We all know the people who live on our streets

Q13. Is there anything in other neighbourhoods you would like to see implemented into Ashton Vale?
- 20mph flashing sign or a Speed camera
- Something to slow the traffic
- A crossing for the school
- Traffic calming.
- Trees. (lots of) (evergreens?), there used to be a lot more trees in the area.
- Flowers (wild), it would be nice to some more flowers in the area
- Post office, there used to be one here, on the crescent by the shop.
- Doctors

Q.14 What are the Strengths, Weaknesses, Opportunities, and Threats to Ashton Vale?
Strengths
- No exits, Ashtonvale is like a cul de sac
- Like a village

Interviews

- All relatively new buildings, unlike other parts of Bristol
- Bowling club

Weaknesses

- The roads by the trading estate
- Depot by south liberty lane, operates 24.7
- House prices

Opportunities

- More development, close to the metro
- More jobs
- The new transport links

Threats

- Gentrification
- Too much development
- Decline in the local wildlife
- Traffic pollution

Interviews

Interview with the head of the Local School

Our community group is the local School which is here to educate the children

We engage with the local neighbourhood with a newsletter that explains community activities and events, that the school is organising, this is given to all the parents and some of the grandparents of the students.

There's a PTA coffee morning. A school newsletter which is given to the relatives of 198students. Pta. Strategic meetings normally consists of 8-10parents who organise, other pare to help with activities.

All parents are involved. PTA meets at the school and occasionally cafés e.g. Tobacco factory. "There's space for a café in the area" the PTA meets to review contests, events BBQ finances there are also links with the youth clubs.

There are also strong links with the local community centre, because some members of the PTA also attend activities over there.

The school is a catalyst for the creation of other social groups, because the school operates as a meeting place for parents locally which helps introduce likeminded individuals to each other,

Parent Teacher Association helps organise;

- Christmas fair
- Summer BBQ
- Football tournament

The have been assemblies held at the school which involve local businesses e.g. Southvile Bakery/ Delicatessen, and a butchers both from North Street.

The school is a member of The South West Bristol Co-operative Learning Trust; through this the school engages in activities with other schools, like the BIG picnic which involves 5 local schools.

The school engages in Community gardening projects through interacting with Allotment groups the school uses some allotments locally as a teaching facility.

Tobacco Factory; pupils are taken to here [tobacco factory] to see theatre performances.

Decorating for Christmas; members of the PTA help to organise this, likewise members of the PTA are also actively engaged with other local community groups.

The bowls club is a local facility. There's a Saturday club attended by pupils from the school

Strengths

- Lots of people/families have lived in the area for years - Childcare – grandparents - Close-knit community bringing up children
- Very Safe – playing out in the street –Best interest for the children – community and teachers look out for each other
- Mix of housing – low level – good mix – most have gardens – mixes well – always been like that.
- Parents are a lot more involved with community groups like the community centre

Weaknesses

- The area is cut off by Winterstoke road
- There a lack of communication with different generational community groups.

Interviews

- Lack of parks. ‘’there’s no children play areas nowhere safe to go without parents, nowhere free to play ”There’s lack of social spaces for adults – cafés etc.
- It’s a long way to the nearest library for adults
- There’s nowhere for parents to go for a coffee after dropping off their kids

Opportunities

- After Sid’s at the end of Silbury road, there is potential for a zebra crossing.
- Sid’s could be improved – tables? – Not the most pleasant of places to shop – when shops in North Street.
- Street Parties
- To become more connected to other areas

Threats

- Cars currently speed down Ashton Drive – a zebra crossing would slow the traffic
- The Traffic is a risk for children on bikes.
- Increase in private landlords – not a stable house – increases the risk of parents becoming homeless – lack of stability of homes

Interviews

Individual Interview Questions

Q1. What is your age?
70 – 80

Q2. What is your gender?
Male

Q3. What is your marital/relationship status?
Married

Q4. Are you employed? (if so, what type? Part-time etc.)
Retired

Q5. What are your hobbies/interests? (Where do you fulfil these?).
Studying and recording Local history; going to houses, visiting groups such as the silver social to record the history of individuals.

Studying Maritime history; going to local museums with the nearest being in the centre of Bristol.

Discovering Family History; at home mainly online.

Q6. Do you have any pets? (if so, where do you take them?).
N/A

Q7. Where do you shop?
About 90% of my shopping is within Bedminster of that 80% from Sainsbury's and 10% from local shops on North Street

Q8. How do you travel?
Exclusively by Car however when the car is excluded; I'll Walk or take a Bus

Potential future alternatives could be the new metro when it opens, or maybe by bike.

Q9. Where would you take a friend for a drink?
Not the Robins, this interview is the first time I've been into the Robins in 30years I would normally go to somewhere like Tyntesfield National Trust, or maybe Clifton Village or Fairfeild mainly because there's a lack of facility's or places of a good standard locally

Q10. Where would you go for social activities?
Saint Pauls, Church & Southville

Q11. How long have you lived in Ashton Vale?
52 years

Q12. Do you know your neighbours?
Yes in the immediate vicinity approximately 50% of my neighbours.

Q13. Is there anything in other neighbourhoods you would like to see implemented into Ashton Vale?
N/A

Q.14 What are the Strengths, Weaknesses, Opportunities, and Threats to Ashton Vale?

Strengths
- Compact area
- Is well defined
- Tranquillity
- The Arched Entrances Restricts Traffic

Weaknesses
- A lack of Cohesive Communication; fragmentation of Groups
- Lack of Children Facilities
- No Local GP
- Poor communication; ''There's poor communication between groups" – "there's no official AshtonVale Facebook or Twitter" - ''there is no 'body' for communication locally, and no clear communication route

for outside developers" What's On For Older People (WOOP) Group, is how I found out about a lot of activities that happen within AshtonVale, i.e. Silver Social.

Opportunities
- The village green; improved access & Drainage
- The area adjacent to the village green is designated for a sports ground

Threats
- Increased Traffic; due to new road development. (Winterstoke road & South Liberty)
- The metro bus route will have a pickup stop close to the youth centre; it won't be a local service.

Bedminster Ward
Bedminster group

The group involved in starting the ''village green"
- Save AshtonVale Environment (now disbanded)

In order to combat the development of a stadium a small group was form, called 'Save AshtonVale Environment' a village green was applied for and was successful with legal help, however there was some difficulty communicating between groups.

Interviews

Interviews Individuals
Q1.
80-90
60-70

Q2.
Male
Male

Q3.
Widow
Married

Q4.
Retired
Retired

Q5.
Gardening
Grenadier Guards
Bird Watching (in garden, used to use the fields)
Trainspotting
Home
Not in Ashton Vale

Q6.
N/A
N/A

Q7.
Sainsbury's
ASDA or ALDI (dependant on price)

Q8.
Car
Car

Q9.
The Ashton?
Shirehampton
The Brunel (St John's Lane)

Q10.
Silver Social
Silver Social

Q11.
60 Years
21 Years AVT Treasurer Neighbourhood Watch Coordinator

Q12.
Yes
Mostly (3 to 5 doors away)

Q13.
Post office
GP
Street parties
No playground (AVT trying to implement)

Q14.
Strengths
- Nice community and residents
- New link road
- Quiet neighbourhood
- Few break-ins and crime

Weaknesses
- Difficult to involve people
- Community centre isn't used much
- Metro bus (used land from the youth centre and social club)
- New link road
- Lack of police on foot

Opportunities
- AVT grows? (more improvements to the neighbourhood made etc.)

Threats
- New link road (S Liberty Ln becomes a "rat run")
- Metro bus
- (Slight) Hooliganism?

Q15.
Likes
- Quiet and few problems

Dislikes
- None

Q16.
Access

Q17.
- Lost post office
- Lost GP

Interviews

Q18.

- Link road
- Metro bus
- Traffic issues? (S liberty Ln)
- Increased crime from better accessibility

Q19.
Council houses (subject to a lengthy waiting list)

Q20.
Yes (200,000 plus av?)

Q21.
No
Notes: Lost 25 bus service to Southville

Interviews

AVT Treasurer (Group Questions)

Q1.
Improve area for all people

Q2.
Approx. 9 (+councillor and GBCP member)

Q3.
Mostly even (all white)

Q4.
Notice boards for walkabouts (once a month)

Q5.
Early 30's to late 60's

Q6.
Youth centre (once a month approx.) and walkabout (once a month approx.)

Q7.
Informal discussion in youth centre (information distributed) + annual meeting (elections held etc.)

Q8.
GBCP

Q9.
Notice boards (Walkabouts and meetings)

Q10. (November 2014 AVT started)
Planters and bench
Trying to site a playground
Highlight on walkabouts trip hazards etc.
Cleared land for planters
S Liberty Ln bushes cut

Q11.
Youth centre (community centre sometimes)(originally used Sainsburys café)

Q12.
N/A

Q13.
N/A (but open to ideas)

Interviews

(Individual Questions)

Q1.
40-50

Q2.
Female

Q3.
Single

Q4.
Yes (Full time)

Q5.
N/A (none)

Q6.
N/A

Q7.
ASDA and ALDI

Q8.
Car

Q9.
Sainsbury's local café
The Robins pub
"Nothing down here"

Q10.
Belong to AVT (park)

Q11.
N/A (8 years Southville)

Q12.
Well connected to Ashton Vale (clicky neighbourhood) (divides between groups)

Q13.
None

Q14.
Strengths
- Youth centre
- Silver Social
- Gardening etc.

Weaknesses
- Bus stops are far from the youth centre

Opportunities
- None
- Threats
- Metro bus (noise etc.)
- Sport opportunity diminished (loss of youth club land and field space)

Q15.
Bristol indoor bowling (families)

Q16.
N/A

Q17.
Pre fab housing removed

Q18.
N/A

Q19.
N/A

Q20.
N/A

Q21.
Families?

Interviews

(Individual Questions)(Couple answering together)

Q1.
70-80

Q2.
Male Female

Q3.
Married

Q4.
Retired

Q5.
Reading
Silver Social (Youth club)
Garden centres (Whitchurch and Whitehall)

Q6.
No

Q7.
ASDA (Whitchurch)
ALDI (Southville)
Tesco (Brislington)

Q8.
Car (bus to town)

Q9.
Robins

Q10.
Youth centre
Ashton Containers (old name?)

Q11.
Knowle for 50 years (approx.)

Q12.
N/A

Q13.
Post office
Library
Doctor

Bus service? (isolated)

Q14.
N/A

Lost Notes
Q13.
Older community
(Nothing can think of)

AV people
Cliquey – community centre and youth club

Groups don't tend to mix at all
Just doesn't happen (no reason to mix)
Possible places for a park? Not looking
Langley crescent
OR - outer playing field (been let out)

Q14.
Strengths
- Community centre
- Became older and younger use it separately
- Good for older people (bingo etc, substantial group)
- Community café (arts and crafts) (once a month)
- Younger mums go
- Gardening – pre school – could be used a lot more
- Youth club
- Intergenerational – sessions with painting
- Planting outside young and old
- This centre encourages interaction in comparison to the community centre
- Successful – summer workshops
- 12 people? At least half will take part in activites
- How people hear about it? Linkage mag/ facebook + word of mouth

Weaknesses
- Community spirit
- "Back in my day…" street parties, ashton vale is left out of things.
- No one wanted to know when Tregarth Road
- Summer activities – no one turned up
- Youth club starting to pick up – dance class (issues with money and inadequate space outside)
- Lost a court outside the back because of metrobus (no compensation paid yet)
- Boss – Lee Williams
- Football days - normally no cars, full now. Big problem and locals aren't happy.
- Drop curbs – not enough/ school crossings
- New flats - wall restricting – locals expressed concern
- Sign posts lacking in Ashton Vale. Especially for the community centre. Not enough info to show what's going on.
- Main road - 20mph zone doesn't work. Not respected throughout Ashton Vale.
- New road south liberty lane.

Opportunities
- Used to live here (like Eastenders, "everyone into everyone's business")
- Next door – funding for public bench (and just had brambles cut back)
- ACAN - teamwork - Try to implement planters and flowers (comes out of chest fund)
- Street furniture + signs + benches for the elderly.
- Long road + Silbury road
- Bus route
- Appearance and flowers (+ BBQ stands?)
- Cycle provision – Before it's implemented no one knows
- More regular – Not everyone morning people
- Hours for community social spaces
- Long walk to Sainsburys for the elderly, potential solution?

Threats
- Youth club struggling due to funding. – huge threat
- Continual funding issues - council cut every penny

- Fundraising for everything we need
- Pool table 'a luxury'
- Maintenance through people they know 'carpenter' brother – upstate youth club
- Bar days, TSB team building days
- Community centre just been taken over
- Council want nothing to do with it
- Learning west go more funding?
- Village green – trees hacked down because of metro bus
- Everyone not happy
- Might as well have put the city ground there

Q15.
Like

- Quiet and village like (everyone chats)
- Send kids to school on their own
- Traffic is quiet (and industry road after 5pm)
- Good school
- Green spaces, playing field
- Small neighbourhood
- Village green like a dump, could be utilised

Dislike

- More things to do
- Maybe a community café?
- Who will run it?
- Who would use it?
- Young mothers, meet at houses and at groups
- Lived here 15 years and haven't seen it open (the old groceries shop)
- Missing a park for the children
- Difficult to find an area for the park that is safe and under surveillance
- Community centre plot big enough for provision of park

Q16.

- Additional crossings
- Speed reduced to 20 appears to have made it worse
- AVT effectively to themselves – not much collaboration between
- School summer BBQ is heaving on 14th July

Q17.

- last 10 – prefabs all around AV
- Good gardens, well kept
- Knocked down and rebuilt (new people moved in)
- Travellers site – fought and very vocal against it.
- Was a permanently allocated site
- Outraged at the time when the bungalows were being knocked down
- All in all no issues, supportive of the school and v. polite

Q18.
Doesn't have much of a chance of staying village-like

Q19.
More affordable here, more land here. More house for the money

Q20.

- Residential house
- Setting up elderly people with the younger kinds at school teaching the elderly how to use computers etc.
- Sheltered housing
- Care accommodation – independent – feel safe

More Lost Notes

Q15.
Car – more open here

Q16.
- Metro bus – taken so much green
- Everything taken and nothing put back

Q17.
- more younger families
- Definitely ethically mixed now

Q18.
- more young families - green - more country
- Safe neighbourhood

Q19.
Lovely where prefabs are

Q20.
- Cost of things - family prices - money to socialise
-
- Notes: 20 – 30 (2 other staff)
- Mixed age group 8-16
- School assemblies picked up

Q14. What are the strengths, weaknesses, opportunities and threats to Ashton Vale?

Strengths :

- Community centre due to it catering for older and younger. (they use it separately)
- Good for the older community which is the majority of Ashton Vale, they use it for bingo etc and there is a good group of them.
- Community cafe which runs once a month, also hosting arts + crafts etc. Tends to be more for young mothers to attend however it is open to all.
- - Hosts gardening and pre-school also, however it could be used a lot more.
- Youth Club as it intergenerational, painting sessions for example cater for the younger and older generations and the same applies to the gardening activities, where the younger plant and the older supervise and do the more tedious jobs.
- The centre encourages interaction between groups in comparison to the community centre which does not engage between groups as much.
- It is successful on the whole, summer workshops are also running there
- When asked how the word is spread about anything going on, Linkage magazine, facebook and word of mouth were the answers.
-
- Youth centre is beginning to really pick up, Julie has numbers of around 20-30 very frequently during the evening slots. She believes this is primarily due to the fact that word is being spread as a result of assemblies at the school etc.

Weaknesses:

- Community spirit is lacking massively on the whole Julie feels.
- They have attempted to throw street parties and summer faires however no one was interested.
- Julie feels that Ashton Vale is often left out of things from the surrounding areas.
- Youth club having inadequate space outside, especially due to the fact that they have recently lost a court as a result of the metrobus route. It all boils down to money, and the council has cut all funding for the youth and community centres.
- Sign posting throughout the area, there is also a lack of sign posting and information for the community centre to spread the word and inform the local residents.
- Football days for Bristol City home games are causing problems around Ashton Vale, it is normally a fairly quiet area without a huge number of cars on the roads and streets in comparison to Bristol. However during match days the roads are becoming increasingly used for parking. The residents are not happy about this.
- Lack of drop curbs for disabled users, and there is a lack of school crossings.
- The new flats have also caused issues due to the fact that the extended wall onto the pavement means that it is very difficult to alight from the bus, this is an issue that has been raised.
- Main road, (whole of Ashton Vale is a 20mph zone) however the speed limit is not always respected. The main road in Ashton vale in which the bus runs along lacks benches etc for the elderly population as it is a long stretch of road. It also has many residents needed to cross it

and therefore should have more pedestrian crossings.

Opportunities:

- Provision of a play park for children.
- Space next door to the youth centre, provision for a picnic bench etc. They have just had the brambles cleared.
- Implementation of planters and flowers around the area.
- Street furniture + signs + benches for the older. Long main road and silbury road.
- Improved appearance - flowers etc. also potential for BBQ stands
- Cycle provision, when we talked about the proposed routes that are being implemented with the metrobus route to the East of Ashton Vale on the North South axis, she responded she wasn't sure the impact/benefit as no one knows because it isn't currently cycle friendly on the whole.
- More regular events at the community social spaces + centres, at different times - not everyone is a morning person and some may be missing out.
- She noted that she was lucky she could drive, however it is a nuisance for older people to get anywhere. Lacking in shops, cafes, amenities spaced apart etc. Long walk to sainsburys (which was identified as the place she would take someone for a coffee)

Threats:

- Youth club due to funding, this is a huge threat. They experience continual funding issues, the council have cut every penny. They are forced to fund raise for anything that they need. Having a pool table is a 'luxury'.
- Maintenance is often done by community members or people they know as a result of the lack of funding.
- Community centre just taken over as the council want nothing to do with it.
- Village green might as well have been used for the new football ground in some community members eyes - trees have been hacked down as a result of the route and they will not receive anywhere near the amount of funding as they would have for a stadium.

Q15. What is it that you specifically like/dislike about the area?

- Far less cars over here, much more open surrounded by undeveloped land.

Q16. If you could change one thing, what would it be?

- Metrobus, it has taken so much of the green space and some community assets like the tennis court. Julie feels that everything is taken in Ashton Vale and nothing is ever put back.

Q17. How do you think the area has changed over the last 10-20 years?

- More younger families, and the area is definitely much more mixed in terms of ethnicity. She notes that the children mix really well.

Q18. How do you think it will change in the next 10-20 years?

- More younger families, as the quiet safe nature of the area appeals to young parents. There is provision for green space and it feels more like the countryside.

- feels like the area where the pre fab bungalows that are being replaced are lovely. Also notes that the area on the whole is affordable and cheap and many are council owned.

Q20. Are there any groups that in particular are excluded?

- Cost of things can be a limiting factor for some parents with multiple children. She states it costs money to socialise.

AshtonVale Resident's Coleective SWOT

SWOT's were mergerd by Jonathan Gomes

Strengths:

- Community centre due to it catering for older and younger. (they use it separately)
- Good for the older community which is the majority of Ashton Vale, they use it for bingo etc and there is a good group of them.
- Parents are a lot more involved with community groups like the community centre
- -Community cafe which runs once a month, also hosting arts + crafts etc. Tends to be more for young mothers to attend however it is open to all.
- Hosts gardening and pre-school also, however it could be used a lot more.
- -Youth Club as it intergenerational, painting sessions for example cater for the younger and older generations and the same applies to the gardening activities, where the younger plant and the older supervise and do the more tedious jobs.
- Silver Social
- The centre encourages interaction between groups in comparison to the community centre which does not engage between groups as much.
- It is successful on the whole, summer workshops are also running there
- When asked how the word is spread about anything going on, Linkage magazine, facebook and word of mouth were the answers.
- Youth centre is beginning to really pick up, Julie has numbers of around 20-30 very frequently during the evening slots. She believes this is primarily due to the fact that word is being spread as a result of assemblies at the school etc.
- New link road
- Quiet neighbourhood
- Few break-ins and crime
- Compact area
- Is well defined
- Tranquillity
- The Arched Entrances Restricts Traffic
- No exits, Ashtonvale is like a cul de sac
- Like a village
- All relatively new buildings, unlike other parts of Bristol
- Bowling club
- Lots of people/families have lived in the area for years - Childcare – grandparents - Close-knit community bringing up children
- Very Safe – playing out in the street Best interest for the children – community and teachers look out for each other
- Mix of housing – low level – good mix – most have gardens – mixes well – always been like that.

Weaknesses:

- Community spirit is lacking massively on the whole.
- They have attempted to throw street parties and summer faires however no one was interested.
- Julie feels that Ashton Vale is often left out of things from the surrounding areas.
- Youth club having inadequate space outside, especially due to the fact that they have recently lost a court as a result of the metrobus route. It all boils down to money, and the council has cut all funding for the youth and community centres.
- Sign posting throughout the area, there is also a lack of sign posting and information for the community centre to spread the word and inform the local residents.
- Football days for Bristol City home games are causing problems around Ashton Vale, it is normally a fairly quiet area without a huge number

AshtonVale Resident's Coleective SWOT

SWOT's were mergerd by Jonathan Gomes

of cars on the roads and streets in comparison to Bristol. However during match days the roads are becoming increasingly used for parking. The residents are not happy about this.

- Lack of drop curbs for disabled users, and there is a lack of school crossings.
- The new flats have also caused issues due to the fact that the extended wall onto the pavement means that it is very difficult to alight from the bus, this is an issue that has been raised.
- Main road, (whole of Ashton Vale is a 20mph zone) however the speed limit is not always respected. The main road in Ashton vale in which the bus runs along lacks benches etc for the elderly population as it is a long stretch of road. It also has many residents needed to cross it and therefore should have more pedestrian crossings.
- Community centre isn't used much
- Metro bus (used land from the youth centre and social club)
- New link road
- Lack of police on foot
- Bus stops are far from the youth centre
- A lack of Cohesive Communication; fragmentation of Groups
- Lack of Children Facilities
- No Local GP
- Poor communication; ''There's poor communication between groups" – "there's no official AshtonVale Facebook or Twitter" - ''there is no 'body' for communication locally, and no clear communication route for outside developers" What's On For Older People (WOOP) Group, is how I found out about a lot of activities that happen within AshtonVale, i.e. Silver Social.
- The roads by the trading estate
- Depot by south liberty lane, operates 24.7
- House prices
- The area is cut off by Winterstoke road
- There's lack of social spaces for adults – cafés etc.
- It's a long way to the nearest library for adults
- There's nowhere for parents to go for a coffee after dropping off their kids

Opportunities:

- Provision of a play park for children.
- Space next door to the youth centre, provision for a picnic bench etc. They have just had the brambles cleared.
- Implementation of planters and flowers around the area.
- Street furniture + signs + benches for the older. Long main road and silbury road.
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- More regular events at the community social spaces + centres, at different times - not everyone is a morning person and some may be missing out.
- She noted that she was lucky she could drive, however it is a nuisance for older people to get anywhere. Lacking in shops, cafes, amenities spaced apart etc. Long walk to sainsburys (which was identified as the place she would take someone for a coffee)
- AVT grows? (more improvements to

the neighbourhood made etc.)
- The village green; improved access & Drainage
- The area adjacent to the village green is designated for a sports ground
- After Sid's at the end of Silbury road, there is potential for a zebra crossing.
- Sid's could be improved – tables? – Not the most pleasant of places to shop – when shops in North Street.
- Street Parties
- To become more connected to other areas
- More development, close to the metro
- More jobs
- The new transport links

Threats:

- Youth club due to funding, this is a huge threat. They experience continual funding issues, the council have cut every penny. They are forced to fund raise for anything that they need. Having a pool table is a 'luxury'.
- Maintenance is often done by community members or people they know as a result of the lack of funding.
- Community centre just taken over as the council want nothing to do with it.
- Village green might as well have been used for the new football ground in some community members eyes - trees have been hacked down as a result of the route and they will not receive anywhere near the amount of funding as they would have for a stadium.
- New link road (S Liberty Ln becomes a "rat run")
- Metro bus
- (Slight) Hooliganism?
- Sport opportunity diminished (loss of youth club land and field space)
- Increased Traffic; due to new road development. (Winterstoke road & South Liberty)
- The metro bus route will have a pickup stop close to the youth centre; it won't be a local service.
- Gentrification
- Too much development
- Decline in the local wildlife
- Traffic pollution
- Cars currently speed down Ashton Drive – a zebra crossing would slow the traffic
- The Traffic is a risk for children on bikes.
- Increase in private landlords – not a stable house – increases the risk of parents becoming homeless – lack of stability of homes

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Apendix 1

The context of this appendix is filled with relevant extracts from a document produced by the Department of Transport, titled Traffic Calming, the document is often colloquially referred as the traffic calming regulations, because the document is essentially the statutory guidance on the regulations of traffic calming created through a culmination of research conducted by the Department of Transport and other international equivalent bodies.

The full document can be accessed Via:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/329454/ltn-1-07_Traffic-calming.pdf

Apendix 1

1.3.2 Changes in speed have been shown to bring about changes in injury accidents. A good rule of thumb is that a 5 per cent reduction in injury accidents can be expected to result from a 1 mph reduction in mean speed (Taylor et al, 2000). The reduction varies according to road type, and is 6 per cent for urban roads with low average speeds, 4 per cent for medium-speed urban roads or lower-speed rural main roads and 3 per cent for higher-speed urban roads or rural main roads. In some traffic-calmed areas, personal injury accidents have been reduced by 60–70 per cent following speed reductions of about 9 mph. The proportion of accidents that are fatal or involve serious injury has also been reduced (Webster, 1993a; Webster & Mackie, 1996; Barker & Webster, 2003).

1.3.3 Whilst traffic calming measures have improved safety overall, they have not always been popular. Some of the issues and limitations that have been exposed include:

- Buses – journey times can increase, as can passenger discomfort and concerns about passenger safety (especially when humps or cushions are placed at or near bus stops). There are also some concerns about increased wear to buses.
- Emergency services – physical speed-reducing measures can adversely affect the response times of emergency services vehicles. This is particularly relevant to fire and ambulance services. All services should plan routes in traffic-calmed areas with the local highway authority, so that the fastest routes are used, rather than the shortest.
- Public opinion – can be very supportive, but in some cases resistance from residents has required removal of measures. Key factors are the priority of road safety on the local agenda, the quality of the scheme design and the approach adopted for the consultation process.
- Cyclists – can find some traffic calming measures uncomfortable, particularly where measures have high upstands. Design of measures needs to take cyclists into account and, where feasible, provide encouragement in the form of cycle bypasses.
- Motorcyclists – can find some measures difficult to negotiate.
- Equestrians – reported to find that some measures, such as pinch points, have an adverse effect on their safety.
- Disabled or older occupants of vehicles, particularly those with pre-existing back conditions, can find measures, specifically but not exclusively vertical deflections, more uncomfortable and more difficult to negotiate than more able bodied persons do.
- Local environment – traffic calming measures change speed profiles and in some circumstances may lead to higher emission and noise levels. Care needs to be taken to minimise any such adverse effects by encouraging smooth driving patterns. There is also an issue with the quality of some treated areas in terms of urban design and local distinctiveness.

2.1.14 The Transport Act 2000 allows local traffic authorities to designate Home Zones and Quiet Lanes. Designation requirements are set out in the Quiet Lanes and Home Zones (England) Regulations 2006 which also enable the making of use orders and speed orders.

2.2.1 Traffic calming schemes are an important element in local road safety

Apendix 1

strategies, which set out how authorities plan to tackle road traffic casualties in their area and why they believe their approach will be effective (see Appendix B). The safety strategies should include speed management to achieve safe vehicle speeds on all roads, and ensure that the speed limits set are appropriate, consistent and enforceable. Traffic calming measures should be employed to encourage both speed reduction and compliance with the limits. Particular attention will need to be given to locations where child casualties occur, including roads around schools, the routes children use to get to and from school and residential areas where they are more likely to play, walk or cycle unsupervised. The Travelling to School initiative is encouraging schools and local authorities to put in place travel plans, which may contain traffic calming measures. It may also be relevant to consider the use of traffic calming measures where there are likely to be large numbers of disabled people, such as day centres.

2.4.7 Local authorities need to take account of the Planning Policy Guidance given in PPG 13 (DETR, 2001a). This aims to integrate land use planning and transport so as to provide more sustainable transport choices, promote accessibility and reduce the need to travel, especially by car. Within town centres, priority should be given to people over motor traffic: here local authorities should actively consider traffic calming together with the reallocation of road space to promote safer walking and cycling, and to give priority to public transport. Home Zones should be used as a model for new residential areas, encouraging low car speeds or even car-free areas where there is sufficient alternative access. In established residential areas, traffic management tools need to be used creatively to support traffic calming. Consideration should be given to the use of 20 mph zones and Home Zones, where applicable.

2.7.1 Walking has a major role in transport and the government wants walking to be easier, more pleasant and safer than it is now. Advice to local authorities is given in TAL 02/00 (Framework for a 20 Traffic Calming local walking strategy). The Department has also published an action plan which sets out a series of measures to promote, and improve provision for, walking and cycling (DfT, 2004b). The Department has carried out a public consultation on a draft LTN on walking and cycling and expects to publish it in 2007. The most important problem is inappropriate vehicle speed. Reducing speed, particularly in residential areas and along busy pedestrian routes, can reduce accidents significantly and make injuries much less severe. Speed can be tackled in a number of ways. Traffic calming, education and publicity all play their part. Ultimately, however, it is the responsibility of the driver to be aware of pedestrians and drive at a speed that is within the speed limit and appropriate to the conditions.

2.7.2 It has been shown (Webster & Mackie, 1996) that pedestrian accidents were reduced by 63 per cent where 20 mph zones were introduced in the UK. Dutch research also indicates that area-wide traffic calming measures can have a positive effect on pedestrian safety. However, site-specific measures (narrowings and median islands) have been found to be less effective in terms of numbers and severity of pedestrian injuries (Dijkstra & Bos, 1997).

2.7.3 In siting traffic calming measures, consideration should be given to existing and likely pedestrian flows and movements, remembering that pedes-

Apendix 1

trians frequently cross the road where it is most convenient for them to do so. Judgements will need to be taken on the extent to which pedestrians are likely to use the measures to help them cross the road (Sections 2.9 and 2.10)

2.7.11 Area-wide traffic calming can do much to reduce the numbers of accidents involving child pedestrians. It has been shown (Webster & Mackie, 1996) that child pedestrian accidents were reduced by 70 per cent after the introduction of 20 mph zones in the UK.

2.7.12 Traffic management and traffic calming schemes can form part of school travel plans developed for Safer Routes to Schools schemes. Speed enforcement and raising driver awareness of school travel issues were two of the recommendations of the School Traffic Advisory Group established by the Government in 1998.

2.10.7 The appearance of calming measures is very important to residents. Using temporary materials initially to construct chicanes can prejudice acceptance of the proposals where the finish is unattractive. Careful attention should be paid to the choice of materials, whether temporary or permanent. Advice from conservation officers, urban designers or landscape architects may assist in producing more acceptable designs. It may be helpful if residents can be given some impression of the permanent scheme by reference to similar schemes elsewhere. Simulation of the scheme is a possibility, but, although simulation is getting cheaper, it can still be expensive.

2.10.11 The following good practice recommendations have been made (Scottish Executive, 1999b):

- the purpose of the proposed scheme needs to be clearly communicated to local residents and all interested parties;
- the extent to which scheme design can be modified needs to be made explicit;
- the location of the measures and their appearance needs to be clearly explained;
- data requirements and effective monitoring need to be established before design begins;
- some education about the use and purpose of the measures should be communicated;
- feedback and monitoring needs to be maintained throughout the design and implementation;
- every effort should be taken to involve the local community in the design process;
- a comprehensive consultation plan should be designed and implemented throughout the scheme development and its first year of operation; 30 Traffic Calming
- community groups should be used where they exist;
- communities should be kept informed of results such as speed, flows and accidents.

2.11.1 There is some evidence that traffic calming schemes can have a positive effect on the independent mobility of children, but less evidence that they have substantially affected the amount of walking or cycling by adults. Whilst 20 mph zones reduce vehicle speeds, children should still not be encouraged to play in the carriageway unless local conditions are appropriate.

2.11.2 A before and after study (1996–97) by TRL on the impact of a traffic calming scheme in Crawley on child pedestrians (aged 8 to 11) found that the proportion of children who walked or cycled had increased (56–69 per cent). Children were more likely to be unac-

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companied by an adult (59–73 per cent) but it was not clear from the responses that this was due to the calming measures. There was no difference in the proportion of children visiting friends, and little difference in the proportion of children playing outside (about 80 per cent) or the frequency of outdoor play. However, about half the parents or carers reported that the traffic calming scheme had made a difference to their child's use of the roads.

2.11.3 A study of traffic calmed areas in Brighton, Leicester, Sheffield and York was carried out as part of the Feet First initiative, set up by Transport 2000 with support from local authority associations and the DfT. Interview surveys indicated that there were gains in independent mobility of children, with more children being allowed to play in the street, travel to school and visit local shops without direct adult supervision. There was also evidence that pedestrians felt safer crossing the road as a result of traffic calming, and that motorists were more likely to let pedestrians cross. There was little evidence that traffic calming had increased the amount of walking by adults, with most respondents saying that the number of journeys made on foot remained the same (Taylor & Tight, 1996).

2.11.4 A study of the community impact of traffic calming schemes in Scotland (Scottish Executive, 1999b) found similar responses from interview surveys. Again the responses varied among schemes, with 4–28 per cent of residents saying that they walked more; 4–15 per cent that they cycled more; and 0–46 per cent saying that they allowed their children to cycle, play out or walk more. Counts were not taken to substantiate the claims of increases. Elsewhere, when similar comments were made, increases in cycling or walking were not recorded.

3.2.9 Research indicates that the speed reduction achieved with the use of 20 mph signs alone is likely to be small, about 1 mph (Mackie, 1998). Therefore, 20 mph speed limits enforced by signs alone would be most appropriate where 85th percentile speeds are already low (24 mph or below) and further traffic calming measures are not needed. 20 mph speed limits without self-enforcing features have the attraction of being relatively inexpensive to implement. However, regard must be given to the 'before' speeds, because the higher they are, the less likely it is that speeds could be reduced to 20 mph.

3.2.16 A 20 mph zone should have entry treatments with signing at the gateways to the zone and suitable speed reducing measures (Fig. 3.6). Within the zone speed control measures are needed, which are broadly defined in TSRGD 2002 (e.g. road humps, raised junctions, speed cushions, horizontal deflections, mini-roundabouts, bends and reductions in the width of the carriageway; see Sections 4 to 8 of this LTN). The combination and design of measures chosen will depend on the road type, the layout of streets in the area, the level and type of traffic flow and the quality of the streetscape. The speed control capacity of some measures (e.g. narrow speed cushions, thumps and some types of horizontal deflection) can be much less than that of road humps, and the extensive use of these devices within a 20 mph zone may not result in an acceptable reduction in speed levels. Narrowings will normally need to be 3.5 metres or less to be effective at controlling vehicle speeds. However, this can cause problems for cyclists if a cycle lane bypass is not provided.

6.1.8 More recent developments in traffic calming advocate the use of narrowings along an entire route or in

a residential area (see paragraphs 6.3.3 and 6.5.4.). This type of narrowing can be used to reduce the dominance of motorised vehicles and increase the sense of places for people, especially in residential areas. Narrowing of this type will often require complete redesign of the road to physically reduce space for motorised vehicles. This 'extra' space can then be reallocated to increase the size of footways, create segregated cycle lanes, recreational areas (e.g. for play equipment in Home Zones), for planting or to increase parking capacity (for example using echelon parking bays).

6.4.9 Although chicanes have shown an overall reduction in injury accident frequency (see paragraph 6.6.20), vehicles are known to have collided with the kerb build-outs at some chicanes, resulting in damage only and injury accidents. The signing, illumination and location of the chicane may be relevant in minimising such accidents. The following points should be considered, especially where the approach speeds may be high:

- A speed reducing feature such as a roundabout or T-junction should ideally be provided prior to the location of the first chicane.
- Reliance on signing alone to reduce speeds may not be sufficient, unless it can be incorporated into a conspicuous gateway feature, with both vertical and horizontal elements.
- For a combination of a roundabout or gateway and chicane to be both safe and effective, they must be within a relatively short distance of each other (see TAL 12/97).
- Illumination and signing of chicanes needs to be checked regularly, as poorly illuminated or poorly signed chicanes can become hazards during bad weather (including snow) or the hours of darkness.
- At single-lane working chicanes, opposing drivers should have sufficient visibility to enable either of them to give way to the other without sudden braking.

6.6.5 A study for the Department for Transport of 49 schemes on the public roads has provided information on speeds through chicanes (Sayer et al., 1998). The data collected showed that an increased path angle leads to a reduction in speed. In general, path angles greater than 15 degrees reduce mean speeds at the chicane to less than 20 mph, while path angles of less than 10 degrees allow speeds of 25 mph or more. For 85th percentile speeds, path angles of about 10 degrees would allow speeds of over 30 mph, whereas path angles of 15 to 20 degrees would result in speeds of 20 to 25 mph. By necessity, path angles at two-way working chicanes are less than at single-lane working chicanes; as a result the speed reduction will be less.

6.6.6 The chicanes in the study tended to be installed on roads with higher 'before' speeds than those where road humps or speed cushions have been installed. While average speed reductions of 12 mph were obtained for the mean speeds at the chicanes in the study, the overall 'after' mean and 85th percentile speeds at the chicanes (23 mph and 28 mph) were higher than those for road humps or speed cushions.

6.6.7 At the single-lane working chicanes, the average 'after' mean and 85th percentile speeds were 21 mph and 26 mph respectively. At the two-way working chicanes, the average 'after' speeds were 27 mph and 31 mph respectively (Sayer et al., 1998). The speed data at locations between chicanes was less complete, so reliable speed-to-chicane spacing relationships could not be compiled. The information available indicated a reduction in overall 'after' mean

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speed between chicanes to 29 mph, and 85th percentile speed to 31 mph.

6.6.8 Track trials (TAL 09/94) showed that a visual restriction (obscuring forward visibility across the build-outs) had a positive effect in reducing speeds 80 Traffic Calming by 2 mph to 4 mph. As discussed earlier, the height of any visual restriction should not be greater than 600 mm where children are likely to be crossing. Although in the trials the restriction was built up to the carriageway edge, it would normally be preferable to provide a clearance between the barrier and the carriageway edge, to avoid the barrier being struck. Reductions in speed may then be smaller, because of the increased forward visibility

6.6.20 The chicane sites investigated by Sayer et al. (1998), gave a reduction of 54 per cent in injury accident frequency. Of the 17 schemes with accident data, accident frequencies were reduced at 10 schemes, unchanged at 4 schemes and increased at 3 schemes. Accident severity was also reduced, from 18 per cent of accidents involving fatal or serious injury before scheme installation, to 12 per cent after.

6.6.21 Accident data from MOLASSES (see paragraph 2.2.5) showed that injury accidents at chicanes or narrowings in urban areas had been reduced, on average by 47 per cent (DETR, 2001b).

6.6.22 Although chicane schemes give an overall reduction in the frequency of injury accidents, vehicles are known to have collided with the kerb build-outs at some chicanes, resulting in both damage-only and injury accidents. Care should be given to the design, signing, illumination and location of chicanes in order to minimise these accidents (see Section 6.4).

6.7.5 Chicanes will generally generate less vehicle body rattle than road humps, unless a speed cushion or road hump is incorporated. However, drivers may show increased stop-start acceleration and braking behaviour through chicane schemes, which can create a noise nuisance (TAL 12/97).

6.7.6 Chicanes are not likely to cause any vibration problems unless a speed cushion is included in the design (see paragraph 4.5.8). 82 Traffic Calming

6.7.7 Stop-start movements at single-lane working chicanes may increase vehicle exhaust emissions, though they would have to be in very large numbers to have any real effect. A study (Boulter et al., 2001) investigating emissions at a range of traffic calming measures (including a pinch point and a single-lane working chicane) found increases in some pollutants of up to 60 per cent (see paragraph 4.5.13). The variability of the emission data precluded a definitive ordering of the different measures tested, but the more severe traffic calming measures in the study tended to result in the largest increases in emissions. It was estimated that, although these measures generally increase the emissions per vehicle, they would be unlikely to result in poor local air quality in the areas concerned. Furthermore, traffic calming generally results in a reduction in traffic flow in the calmed area, which should reduce overall emissions.

6.7.8 Planters can be used to enhance chicane schemes, but it is important that these are not more than 600 mm high where children may be crossing and that they are maintained adequately. Alternatively, trees could be used, as long as these are located so as not to obscure pedestrians waiting to cross. Where a single-lane priority system is used at narrowings, the planting or oth-

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er features should not prevent drivers approaching in opposite directions from being able to see each other.

10.2.9 Central hatched road markings (Fig. 10.2) can be used to discourage drivers from overtaking and can also give the impression that the road is narrower (optical width) than it is in reality. Placing them on a coloured background can give additional emphasis. Hatched road markings have been used at a number of villages (Wheeler et al., 1996; Wheeler et al., 1994) and have also been used extensively by the Highways Agency on trunk roads (Highways Agency, 2003).

10.2.10 Central hatching can squeeze cyclists, because of the reduced width, and thereby increase the perceived danger and unpleasantness for them. Where there is sufficient carriageway width, central hatching can be combined with cycle lanes to create reduced motor vehicle lanes, as used in the Safer City project in Gloucester (Bellotti, 1998). However, cycle lanes should not be implemented solely for traffic calming purposes.

10.2.15 Many traffic calming schemes rely solely on road humps to moderate traffic speeds. However, some schemes have used planters and other street furniture to enhance a scheme (Fig. 10.4). The bypass demonstration project (DoT, 1995c) contains useful information on the subject.

10.2.16 Planters and trees have been used in Europe (Hass-Klau et al., 1992) as a means of enhancing schemes and reducing carbon dioxide in the air, but plants can be vandalised and the roots of some types can damage underground services or pavements. Root containment systems and careful selection of plant species can reduce this latter problem. Fig. 10.3 Road closure Traffic Calming 95

10.2.17 Encouraging community ownership of the scheme can reduce vandalism of plants and other street furniture. In the Morice Town Home Zone in Plymouth large planters were used like chicanes as traffic calming features (see Figure 3.1). Since the implementation of the planters, residents have set up a gardening club to maintain the plants.

10.2.18 Care should be taken when using plants as a traffic calming measure that they do not block a driver's view of any pedestrians, especially child pedestrians. As a general rule, bushy planting at heights between 600 and 2000 mm is best avoided. Note that this advice would not prohibit the use of street trees where the canopy was above 2000 mm.

10.2.19 The potential for reduced sightlines to bring about naturally a reduction in vehicle speed, and hence improved road safety, as a result of to increased driver uncertainty is being investigated as part of the Department's Manual for Streets project. This will be reported in later publications.

10.2.20 Various types of bollards are available, including self-illuminated and rising bollards. For example, wooden bollards have been used in Shrewsbury (Wheeler, 1999a) and metal bollards have been used in Bury St Edmunds (Wheeler, 1999b). Both of these reports show how the bollards blend in with the area. They can also be used to re-emphasise the local identity of an area, for example by using local materials or an area logo, such as those used in Devon which are made of local granite. However, whilst aesthetics are important regard must be had that people with

visual impairment can distinguish between the bollard and other features.

10.4.4 Coloured/textured surfaces. The effect of coloured surfaces can be difficult to separate from other techniques used simultaneously, and their additional effect is likely to be small. In a recent simulator study carried out as part of research into 'psychological' traffic calming measures, the results suggested that coloured surfacing alone, however elaborate, did little to slow traffic (Kennedy et al., 2005).

10.4.5 Block paved areas in Bury St Edmunds (Wheeler, 1999b) and in Shrewsbury (Wheeler, 1999a) gave speed reductions of 2 mph and 7 mph respectively, with both schemes having 85th percentile speeds reduced to below 20 mph. An analysis of personal injury accidents in Shrewsbury from 1989 to 1998 showed there has been a reduction from 3.9 to 2.2 per year, with serious injuries falling from 36 per cent to 25 per cent. There were no fatalities (EHTF, 2003).

10.4.6 In a village traffic calming scheme in Charlwood, a change to an imprinted surface had the effect of reducing 85th percentile speeds from 34 mph to 29 mph (Kennedy & Wheeler, 2001).

10.4.12 Planters and bollards. Trees and shrubs can be used to restrict sight lines in residential roads. There is currently a debate as to whether the restriction of sight lines removes driver certainty, reducing speed and improving safety, but this theory is not yet proven. Shrubs can cause problems if they are not maintained at their designed height or spread.

10.4.13 Bollards can be an effective way of reducing illegal parking. Care needs to be taken that bollards do not impede access for disabled people.

10.5.1 The use of additional speed roundel markings, coloured surfacing and hatched road markings may have a negative visual impact on the areas where they are implemented. They can also detract from historic environments and views. The significance of such impacts will depend on the sensitivity of the environment in which they are to be placed. The benefits in terms of speed reduction, which maybe small, should be balanced against the negative impacts.

10.5.2 Textured surfaces, including imprint surfacing and block paving, can increase traffic noise or change its character; in some cases this has led to noise disturbance for local residents. Again, this potential negative impact should be weighed against safety and aesthetic gains to be had.

10.5.4 As mentioned in paragraph 10.2.15, trees and shrubs have been used to enhance the physical appearance of a scheme and reduce carbon dioxide levels. However, the addition of plants to a traffic calming scheme may also have other benefits, such as improvements in community acceptance and ownership of a scheme, increased route attractiveness to walkers and cyclists, enhancement of physical measures (for example to make a narrowing seem tighter) and improved quality of life.

Advantages:

- Less discomfort than road humps to occupants of large buses and commercial vehicles.
- Less delay to fire appliances.
- Effective speed control device, but not quite as effective as road humps.
- Chicane width and path angle through chicane can be used to influence the speed of vehicles

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through a chicane.
- Chicane dimensions and spacing can be varied depending upon the road type and 'target' speed required.
- Wider chicanes can be used to reduce discomfort to passengers in buses (including articulated buses) and ambulances. However, this is likely to increase the speed of cars.
- Chicane layouts can be varied to suit road width.
- The use of chicanes may remove some through traffic but the effect on traffic flows on roads with chicanes may be small (about 7–15 per cent overall).
- Different colours and materials can be used to increase effectiveness and offer greater opportunity to improve the street scene with planting.

Disadvantages:
- May not reduce speeds of two-wheeled motor vehicles.
- Discomfort may be experienced by passengers in buses and ambulances. The degree of discomfort varies between vehicles and is governed by vehicle type, vehicle wheelbase, vehicle speed and chicane dimensions.
- Large vehicles may have difficulty, and cause damage, if chicane dimensions are too restrictive. Alternatively, chicanes designed to accommodate wider vehicles are unlikely to have the desired speed reducing effect on cars.
- Drainage can be a problem.
- Chicanes may interfere with accesses if not designed properly and the number of on-street parking spaces for vehicles may be reduced.
- Noise and vibration levels may be a nuisance at locations adjacent to chicanes, where there is a significant flow of commercial vehicles in the traffic stream, especially if the commercial vehicles have an over-run area.
- Some car drivers may drive on the opposite side of the carriageway to obtain the 'racing line' through the chicane.
- Chicanes can be unpopular with some residents due to concern about the speed of motorcycles, fear of collisions through the chicane due to drivers travelling in the centre of the road, reduction in parking and difficulty in using accesses. Traffic Calming 127
- Chicanes need marking, signing and lighting. All of which should be checked regularly to minimise any vehicle collisions with kerb build-outs.
- Chicanes without cycle bypasses can be intimidating for cyclists.
- Streets fitted with some types of chicanes are not visually attractive.
- Vehicles travelling at inappropriate speeds can damage bollards, planters and the build-outs themselves. This can lead to a scheme looking untidy and high maintenance costs.
- Narrow chicanes on roads where there is high traffic flow may cause localised congestion.

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The context of this appendix is filled with relevant extracts from a document produced by the Department of Transport, titled Manual for Streets, the document is is essentially the statutory guidance on the regulations of Street Design created through a culmination of research conducted by the Department of Transport and other international equivalent bodies.

The full document can be accessed Via:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/341513/pdfmanforstreets.pdf

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2.2 Streets and roads 2.2.1 A clear distinction can be drawn between streets and roads. Roads are essentially highways whose main function is accommodating the movement of motor traffic. Streets are typically lined with buildings and public spaces, and while movement is still a key function, there are several others, of which the place function is the most important (see 'Streets – an historical perspective' box)

2.5.1 There is a complex set of legislation, polices and guidance applying to the design of highways. There is a tendency among some designers to treat guidance as hard and fast rules because of the mistaken assumption that to do otherwise would be illegal or counter to a stringent policy. This tends to restrict innovation, leading to standardised streets with little sense of place or quality. In fact, there is considerable scope for designers and approving authorities to adopt a more flexible approach on many issues.

2.5.2 The following comprise the various tiers of instruction and advice:

- the legal framework of statutes, regulations and case law;
- government policy;
- government guidance;
- local policies;
- local guidance; and design standards.

2.5.3 Parliament and the courts establish the legal framework within which highway authorities, planning authorities and other organisations operate.

2.5.4 The Government develops policies aimed at meeting various objectives which local authorities are asked to follow. It also issues supporting guidance to help authorities implement these policies.

2.5.5 Within this overall framework highway and planning authorities have considerable leeway to develop local policies and standards, and to make technical judgements with regard to how they are applied. Other bodies also produce advisory and research material that they can draw on.

6.3.1 The propensity to walk is influenced not only by distance, but also by the quality of the walking experience. A 20-minute walk alongside a busy highway can seem endless, yet in a rich and stimulating street, such as in a town centre, it can pass without noticing. Residential areas can offer a pleasant walking experience if good quality landscaping, gardens or interesting architecture are present. Sightlines and visibility towards destinations or intermediate points are important for pedestrian way-finding and personal security, and they can help people with cognitive impairment.

6.3.2 Pedestrians may be walking with purpose or engaging in other activities such as play, socialising, shopping or just sitting. For the purposes of this manual, pedestrians include wheelchair users and people pushing wheeled equipment such as prams.

6.3.3 As pedestrians include people of all ages, sizes and abilities, the design of streets needs to satisfy a wide range of requirements. A street design which accommodates the needs of children and disabled people is likely to suit most, if not all, user types.

Informal crossings – these can be created through careful use of paving materials and street furniture to indicate a crossing place which encourages slow-moving traffic to give way to pedestrians

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6.3.10 Obstructions on the footway should be minimised. Street furniture is typically sited on footways and can be a hazard for blind or partially-sighted people.

6.3.12 Pedestrian desire lines should be kept as straight as possible at side-road junctions unless site-specific reasons preclude it. Small corner radii minimise the need for pedestrians to deviate from their desire line (Fig. 6.3). Dropped kerbs with the appropriate tactile paving should be provided at all side-road junctions where the carriageway and footway are at different levels. They should not be placed on curved sections of kerbing because this makes it difficult for blind or partiallysighted people to orientate themselves before crossing.

6.3.13 With small corner radii, large vehicles may need to use the full carriageway width to turn. Swept-path analysis can be used to determine the minimum dimensions required. The footway may need to be strengthened locally in order to allow for larger vehicles occasionally overrunning the corner.

6.3.14 Larger radii can be used without interrupting the pedestrian desire line if the footway is built out at the corners. If larger radii encourage drivers to make the turn more quickly, speeds will need to be controlled in some way, such as through using a speed table at the junction.

6.3.15 The kerbed separation of footway and carriageway can offer protection to pedestrians, channel surface water, and assist blind or partially-sighted people in finding their way around, but kerbs can also present barriers to some pedestrians. Kerbs also tend to confer an implicit priority to vehicles on the carriageway. At junctions and other locations, such as school or community building entrances, there are benefits in considering bringing the carriageway up flush with the footway to allow people to cross on one level (Fig. 6.4). This can be achieved by:

- raising the carriageway to footway level across the mouths of side roads; and
- providing a full raised speed-table at 'T' junctions and crossroads.

6.3.17 Pedestrians can be intimidated by traffic and can be particularly vulnerable to the fear of crime or anti-social behaviour. In order to encourage and facilitate walking, pedestrians need to feel safe (Figs 6.5 and 6.6).

6.3.18 Pedestrians generally feel safe from crime where:

- their routes are overlooked by buildings with habitable rooms (Fig. 6.7);
- other people are using the street;
- there is no evidence of anti-social activity (e.g. litter, graffiti, vandalised street furniture);
- they cannot be surprised (e.g. at blind corners);
- they cannot be trapped (e.g. people can feel nervous in places with few entry and exit points, such as subway networks); and
- there is good lighting.

6.3.19 Streets with high traffic speeds can make pedestrians feel unsafe. Designers should seek to control vehicle speeds to below 20 mph in residential areas so that pedestrians activity is not displaced.

6.5.14 Buses can help to control the speed of traffic at peak times by preventing cars from overtaking. This is also helpful for the safety of passengers crossing after leaving the bus.

7.4.2 For residential streets, a maximum design speed of 20 mph should

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normally be an objective. The severity of injuries and the likelihood of death resulting from a collision at 20 mph are considerably less than can be expected at 30 mph. In addition, vehicle noise and the intimidation of pedestrians and cyclists are likely to be significantly lower.

7.4.3 Evidence from traffic-calming schemes suggests that speed-controlling features are required at intervals of no more than 70 m in order to achieve speeds of 20 mph or less.12 Straight and uninterrupted links should therefore be limited to around 70 m to help ensure that the arrangement has a natural traffic-calming effect.

7.4.4 A continuous link can be broken up by introducing features along it to slow traffic. The range of traffic-calming measures available act in different ways, with varying degrees of effectiveness: Physical features – involving vertical or horizontal deflection – can be very effective in reducing speed. It is preferable to use other means of controlling speeds, if practicable, but there will be situations where physical features represent the optimum solution. Additional sources of advice on traffic calming can be found in Traffic Advisory Leaflet 2/05.13

- Changes in priority – at roundabouts and other junctions. This can be used to disrupt flow and therefore bring overall speeds down
- Street dimensions – can have a significant influence on speeds. Keeping lengths of street between junctions short is particularly effective. Street width also has an effect on speed (see box).
- Reduced visibility – research carried out in preparation of MfS found that reductions in forward visibility are associated with reduced driving speeds (see box).
- Psychology and perception – street features and human activity can have an influence on the speed at which people choose to drive. Research14 suggests that features likely to be effective include the following:

edge markings that visually narrow the road

- speed reduction is likely to be greatest where the edging is textured to appear unsuitable for driving on; – the close proximity of buildings to the road;
- reduced carriageway width;
- obstructions in the carriageway (Fig. 7.15);
- features associated with potential activity in, or close to, the carriageway, such as pedestrian refuges;
- on-street parking, particularly when the vehicles are parked in echelon formation or perpendicular to the carriageway; – the types of land use associated with greater numbers of people, for example shops; and
- pedestrian activity

7.4.6 A street with a 20 mph limit is not the same as a 20 mph zone. To create a 20 mph zone, it is a legal requirement that trafficcalming measures are installed to ensure that low speeds are maintained throughout. In such cases, the limit is signed only on entering the zone, and no repeater signs are necessary.

7.4.8 A speed limit is not an indication of the appropriate speed to drive at. It is the responsibility of drivers to travel within the speed limit at a speed suited to the conditions. However, for new streets, or where existing streets are being modified, and the design speed is below the speed limit, it will be neces-

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sary to include measures that reduce traffic speeds accordingly

10.1.1 Street furniture and lighting equipment have a major impact on the appearance of a street and should be planned as part of the overall design concept. Street furniture should be integrated into the overall appearance of a street. Street audits can help determine what existing street furniture and lighting is in place, and can help designers respond to the context.

10.1.3 Street furniture that encourages human activity can also contribute to a sense of place. The most obvious example of this is seating, or features that can act as secondary seating. In addition, street features such as play equipment may be appropriate in some locations, particularly in designated Home Zones, in order to anchor activity

10.2.2 Street furniture of direct benefit to street users, particularly seating, is encouraged but should be sympathetic to the design of the street and respect pedestrian desire lines (Fig. 10.1).

10.2.3 Seating is necessary to provide rest points for pedestrians, particularly those with mobility or visual impairments, and extra seating should be considered where people congregate, such as squares, local shops and schools. Guidance is given in Inclusive Mobility and BS 8300 . Seating can sometimes attract anti-social behaviour and therefore should be located where there is good lighting and natural surveillance.

10.2.4 Although much street furniture is provided for the benefit of motorised users, it is generally located on the footway and can contribute to clutter. In some circumstances, it may be possible to reduce footway clutter by placing some of these items on build-outs.

10.2.5 Street furniture, including lighting columns and fittings, needs to be resistant to vandalism and be placed in positions that minimise risk of damage by vehicles.

10.2.6 Street furniture and lighting should be located within the limits of the adoptable highway. Street furniture should be aligned on footways, preferably at the rear edge in order to reduce clutter. Care should be taken that street furniture at the rear edge of the footway does not make adjoining properties less secure by providing climbable access to windows.