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WILLAND PARISH COUNCIL

ROAD SAFETY INTERVENTION CATALOGUE







GATEWAY SIGNAGE

Village nameplate and speed limit signage

Benefits of Intervention

Description

- Reduces traffic speed on approach to village & increases awareness of approaching environment;
- Enhances driver awareness of speed limit changes;
- Incorporates two pieces of street furniture within one location;
- Provides clear designation of village boundaries;
- Offers uniformity on all approaches to Willand village.

Drawbacks of Intervention

- The more bespoke the sign, the higher the maintenance cost;
- Requires sufficient space within the public highway for installation;
- Full effectiveness of this intervention requires further interventions.

Key Intervention Headline

Gateway signage has the potential to reduce traffic speed by up to 3-4mph based on data analysis from previous sites. A traditional gateway treatment often consists of a gateway arrangement with a village name plate incorporated into the gateway feature. There are numerous examples of these in villages across the Country. There is scope to include an element of bespoke design to incorporate the villages unique appeal



APPROXIMATE COST

£1,000 - £2,000 per feature

Examples of Intervention



An example of this is integrating alogo into the nameplate sign, or creating a customised village name plate sign. Whilst this will be effective at drawing attention to the village, it has to be recognised that the costs and ongoing maintenance will be higher.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Gateway signage can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow **Build-Outs** (see page 3-4);
- \Rightarrow **Road Narrowings** (see page 5-6);
- \Rightarrow Line Removal (see page 7-8);
- \Rightarrow Change of surface material (see page 17-18);
- \Rightarrow Coloured Surfacing (see page 19-20);

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PRIORITY BUILD-OUT

Kerbline narrows carriageway requiring traffic to give-way

Benefits of Intervention

Description

A

buildout is

- One of the most effective interventions at achieving speed reduction;
- Reduces traffic speed on approach to village & increases awareness of approaching environment;
- Reduces carriageway widths making them good locations for uncontrolled crossing points;
- Provides opportunity for planting and greenery, enhancing village environment;
- Integrates with many other interventions.

Drawbacks of Intervention

- Can be difficult to implement without street lighting;
- Can become maintenance liability if frequent damage caused by vehicles striking feature;
- Higher cost intervention.

Key Intervention Headline

Priority build-outs has the potential to reduce traffic speed by up to 4-5mph based on data analysis from previous sites. infrastructure that traditionally is delivered by implementing a new kerb line into the carriageway. This reduces the width of the carriageway and doesn't allow twoway traffic to pass. Therefore, it becomes necessary to sign a priority of traffic flow. Usually the side of the buildout is the flow of

traffic that is required to give-way.



APPROXIMATE COST

£15,000 - £20,000 per feature

Examples of Intervention

a piece

of



An effective use of buildouts as a traffic calming measure is on the approach to village centres. Installing a priority build-out just before a village centre enable traffic approaching to give-way. This means traffic will be moving much slower into the village. A build-out often provides a good location for pedestrian crossing points as the carriageway width is reduced meaning there is less distance for pedestrians to cross.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Priority build-outs can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow 20mph zones / limits (see page 15-16);
- \Rightarrow Change of surface material (see page 17-18);
- ⇒ Coloured Surfacing (see page 19-20);
- \Rightarrow **Pedestrian crossing points** (see page 23-24);
- \Rightarrow Green infrastructure (see page 27-28).

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ROAD NARROWINGS

Reducing the width of the carriageway but allowing two-way traffic

Benefits of Intervention

Description

Narrowing

- Can be used in most locations within a village as width can be based on available space;
- Effective in support of active travel infrastructure , providing additional protection for cyclists.
- Provides good integration with green infrastructure;
- Reduces carriageway widths making them good locations for pedestrian crossing points;
- Various cost options meaning the intervention can be delivered with low budgets;

Drawbacks of Intervention

- Can be difficult to implement without street lighting;
- Prone to damage with vehicles striking the intervention at night;
- Most effective when two-way traffic, otherwise helps create different road scene

Key Intervention Headline

Road narrowings has the potential to reduce traffic speed by up to 2-3mph based on data analysis from previous sites. A road narrowing involves reducing the width of the carriageway on both sides to create a pinch point. The idea of a road narrowing is to allow two-way traffic to pass but due to the reduced width of the carriageway at the point of the narrowing, drivers are likely to slow down considerably to ensure vehicles can pass each other without collision.



APPROXIMATE COST

£5,000 - £15,000 per feature

Examples of Intervention

the width of the

carriageway often provides an

ideal opportunity to integrate

pedestrian crossing points within

the feature. Providing dropped

kerbs and tactile paving will

safeguard the point for all pedestrians. Bollards should be

considered for protection. Road

narrowings often provide the

opportunity for green infrastructure

to be incorporated such as

vegetation or small rain gardens.



Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Road narrowings can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow 20mph zones / limits (see page 15-16);
- \Rightarrow Change of surface material (see page 17-18);
- \Rightarrow Coloured Surfacing (see page 19-20);
- \Rightarrow **Pedestrian crossing points** (see page 23-24);
- \Rightarrow Green infrastructure (see page 27-28).

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REMOVAL OF ROAD MARKINGS

Removing road markings to reduce comfort of drivers

Benefits of Intervention

Description

- Effective intervention over longer periods where removing road markings can be done safely;
- Low cost intervention;
- Supports the opportunity of decluttering villages, creating a more rural environment;
- Doesn't require any physical infrastructure, which means maintenance costs very low;
- Integrates with other interventions such as changing surface materials or material colours.

Drawbacks of Intervention

- Some locations will require the road markings to provide additional safety, such as around tight bends
- Drivers travelling through the village on a regular basis likely to become accustomed to the environment
- Potentially limited speed reduction.

Key Intervention Headline

Removing road markings has the potential to reduce traffic speed by up to 2-3mph based on data analysis from previous sites. Road markings provide a degree of comfort to drivers. It provides a position within the carriageway and reduces the likelihood of head-on collisions. Whilst necessary in many locations, removing road markings such as centre lines in villages can be an effective method of reducing traffic speed as the level of confidence in vehicle positioning is reduced.



APPROXIMATE COST

£500 - £2,000 per site

Examples of Intervention



Reducing confidence in where a vehicle should be positioned often in drivers naturally results reducing traffic speed. This is because there is a perception of an increased possibility of head-on collisions with other vehicles. Removing road markings can include give-way markings and other road markings in the right location. A decision on removing road markings should be made on a location by location basis.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Removing road markings can be integrated with a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Road narrowings (see page 5-6);
- \Rightarrow Change of surface material (see page 17-18);
- \Rightarrow Coloured Surfacing (see page 19-20);
- \Rightarrow Virtual footways (see page 21-22);
- \Rightarrow **Decluttering** (see page 29-30).

SPEED INDICATOR DEVICE

Digital signs that display traffic speed to drivers

Benefits of Intervention

Description

- Widely considered the most effective non-physical traffic calming measure;
- Enhances driver awareness of speed limit changes;
- Can be utilised in most locations within a village;
- Mobile SID can be redeployed across various areas to target speed at any point in the village;
- Allows data to be captured such as number of vehicles exceeding speed limit and traffic volume.

Drawbacks of Intervention

- Often seen as inappropriate measures in rural villages;
- Electronic device that may be subject to faults requiring repair;
- Greater risk to criminal damage compared to other traffic calming.

Key Intervention Headline

Speed Indicator Devices have the potential to reduce traffic speed by up to 4-5mph based on data analysis from previous sites. A Speed Indicator Device (SID) is widely considered the most effective non-physical traffic calming measure available within the UK. Although there are various types of SID, the most effective are the signs that display the speed a vehicle is travelling, often with a emoji depending on whether the vehicle is over or under the speed limit.



APPROXIMATE COST

£2,500 - £5,000 per feature

Examples of Intervention



A SID can be implemented as a permanent measure or а temporary measure. A permanent SID will stay in the same location 24/7. A temporary SID is often portable and can be relocated to any point within a village. The temporary SID are often deployed by Speedwatch groups. Both types of VAS can provide useful data such as traffic speed and volume data that can be used as evidence when attempting to gain funding for traffic calming.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Speed Indicator Devices can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow **Build-Outs** (see page 3-4);
- \Rightarrow Speed limit extension (see page 11-12);
- \Rightarrow Speed limit buffer (see page 13-14);
- \Rightarrow **20mph zones** / limits (see page 15-16).

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EXTENSION OF SPEED LIMIT

Increasing the speed limit on the approach to a village

Benefits of Intervention

Description

- Reduces traffic speed before vehicles enter the village;
- Doesn't require any physical traffic calming measures;
- Very effective at reducing speed in the areas where speed is likely to be at the highest point;
- Low cost intervention to implement, especially if the TRO is combined with other proposals;
- Provides opportunity to expand the opportunity for other traffic calming measures.

Drawbacks of Intervention

- Excessive extensions may have adverse impact, increasing speed into villages;
- Unlikely to be effective without other traffic calming interventions;
- Requires additional signage and road markings.

Key Intervention Headline

Extending the speed limit has the potential to reduce traffic speed by up to 2-3mph based on data analysis from previous sites. Implementing an appropriate speed limit can be challenging in rural villages. Often speed limit terminals are in place at the start of villages. In rural locations drivers often start slowing down when reaching a new speed limit. If the terminal signs are at the start of the village, there is a high likelihood drivers will be exceeding the speed

limit as they enter the village.



APPROXIMATE COST

£5,000 - £7,000 per site

Examples of Intervention



Extending the speed limit further away from the start of the village is likely to result in traffic entering the village at a slower speed. It's important not to extend the speed limit too far from the village as there is a risk drivers will ignore the speed limit as it will not feel comfortable for the environment. Extending the speed limit requires the support of the Police. Excessive speed limit extensions will not be supported due to a risk of enforcement issues.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Extending the speed limit can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow **Build-Outs** (see page 3-4);
- \Rightarrow Speed Indicator Device (see page 9-10);
- \Rightarrow Speed limit buffer (see page 13-14);
- \Rightarrow 20mph zones / limits (see page 15-16);
- \Rightarrow Virtual footways (see page 21-22).

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SPEED LIMIT BUFFER

Introducing a new intermediate speed limit between two existing limits

Benefits of Intervention

Description

- Reduces traffic speed twice before vehicles enter the village;
- Doesn't require any physical traffic calming measures;
- Very effective at reducing speed in the areas where speed is likely to be at the highest point;
- Low cost intervention to implement, especially if the TRO is combined with other proposals;
- Provides opportunity to expand the opportunity for other traffic calming measures.

Drawbacks of Intervention

- Excessive buffers will be objected by the Police, which is likely to prevent implementation;
- Unlikely to be effective without other traffic calming interventions;
- Requires additional signage and road markings.

Key Intervention Headline

Providing a speed limit buffer has the potential to reduce traffic speed by up to 2-3mph based on data analysis from previous sites. In rural villages it's common for traffic to wait until entering a new speed limit before slowing down. This means traffic is often travelling in excess of the speed limit for the early part of the village, creating a safety concern. Many rural villages have the 30mph speed limit signs in conjunction with the national 60mph speed limit. This means traffic is reducing from 60mph.



APPROXIMATE COST

£5,000 - £7,000 per site

Examples of Intervention



It may not be possible to extend the 30mph limit further. To mitigate this risk, introducing an intermediate speed limit can be an effective intervention. This acts as a buffer between the existing 30mph and 60mph limits. The extents of the speed limit buffer will need to be identified on a site by site basis. Generally, a limit in the range of 400-600m should be effective. This means traffic will slow down at the 40mph speed limit terminals and then again at the 30mph terminals.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Speed limit buffers can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow **Build-Outs** (see page 3-4);
- \Rightarrow Speed Indicator Device (see page 9-10);
- \Rightarrow Speed limit extension (see page 11-12);
- \Rightarrow 20mph zones / limits (see page 15-16);
- \Rightarrow Virtual footways (see page 21-22).

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20MPH ZONES & LIMITS

20mph speed limits that include traffic calming or just signs and lines

Benefits of Intervention

Description

- Effective intervention that covers an entire area as oppose to a specific site, meaning greater compliance;
- Repeater signage used to reinforce speed limit;
- Integrates with virtually all other interventions contained within the catalogue;
- 20mph zones (with physical calming) likely to deliver highest speed reduction rates;
- Discourages traffic from the area.

Drawbacks of Intervention

- A number of the physical traffic calming measures require street lighting to be present;
- Higher cost intervention;
- 20mph limits will require additional measures to be effective.

Key Intervention Headline

20mph zones & limits has the potential to reduce traffic speed by up to 4-8mph based on data analysis from previous sites. A 20mph zone involves reducing the speed limit to 20 and integrating traffic calming measures alongside the speed limit reduction. These measures can be physical or non-physical. A 20mph limit involves reducing the speed limit to 20 without providing any traffic calming measures. Signage and road markings are used to demonstrate the speed limit.



APPROXIMATE COST

£6,000 - £50,000 per site

Examples of Intervention



20mph speed limits are rare in rural villages as guidance set by the DfT states average traffic speed cannot be higher than 10% plus 2mph. Therefore if a road has an average speed above 24mph a 20mph limit cannot be considered. A 20mph zone doesn't have a specific threshold meaning they are more common in rural villages where traffic speed is higher. Traffic calming measures can include build-outs, and pinch points, although VAS, and surface materials can be used.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. 20mph zones and signs can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow **Build-Outs** (see page 3-4);
- \Rightarrow **Road narrowings** (see page 5-6);
- \Rightarrow Speed limit extension (see page 11-12);
- \Rightarrow Speed limit buffer (see page 13-14);

- \Rightarrow Surface material (see page 17-18)
- \Rightarrow Coloured surfacing (see page 19-20);
- \Rightarrow **Pedestrian crossing** (see page 23 -24).

SURFACE MATERIALS

Providing alternative materials to the traditional tarmac material

Benefits of Intervention

Description

- Creates an environment more befitting of rural villages;
- Enables key areas to be highlighted in more detail, which is likely to achieve good speed reduction;
- Integrates with a number of other interventions;
- Provides opportunity to reallocate roadspace to Non-Motorised Users;
- Can be used to create informal paths and routes such as uncontrolled crossing points.

Drawbacks of Intervention

- Often met with resistance from the local highway authorities due to increase in maintenance costs;
- One of the highest cost interventions, especially if larger areas;
- Alternative materials to tarmac often deteriorate quicker, which can impact the appearance.

Key Intervention Headline

Alternative surface materials has the potential to reduce traffic speed by up to 3-4mph based on data analysis from previous sites. The standard type of surface used for carriageway construction is tarmac. There are many benefits of this surface treatment including longevity and cost. However, it's possible to use different surface materials to create a different appearance that can cause drivers to slow down through the change of environment. There are various surface treatments available.



APPROXIMATE COST

£25,000 - £75,000 per site

Examples of Intervention



These treatments can range from high quality materials such as granite setts, and yorkstone paving to slightly lower quality materials such as natural stone, and concrete blocks. Certain materials are more defined in specific colours, which may make the use dependent on surrounding materials and colours. Differing surface materials can be costly for both capital delivery and ongoing maintenance. Therefore, the use should be limited to small areas.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Surface materials can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow **Build-Outs** (see page 3-4);
- \Rightarrow **Road narrowings** (see page 5-6);
- \Rightarrow Line removal (see page 7-8);
- \Rightarrow 20mph zones / limits (see page 15-16);
- \Rightarrow Coloured surfacing (see page 19-20).

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COLOURED SURFACING

Changing the surface colour to provide alternative environment

Benefits of Intervention

Description

- Creates a different environment that changes driver perception, which reduces traffic speed;
- Enables key areas to be highlighted in more detail, which is likely to achieve good speed reduction;
- Integrates with a number of other interventions;
- Provides opportunity to reallocate roadspace to Non-Motorised Users;
- Most effective when used in small areas, which reduces costs.

Drawbacks of Intervention

- Often met with resistance from the local highway authorities due to increase in maintenance costs;
- Brighter colours highlight dirt andspills often overlooked on tarmac;
- Alternative materials to tarmac often deteriorate quicker, which can impact the appearance.

Key Intervention Headline

Coloured surfacing has the potential to reduce traffic speed by up to 3-4mph based on data analysis from previous sites. Coloured surfacing is an effective solution to creating an alternative environment. The colour of the carriageway will have a drastic impact on the local area. Therefore, it is recommended to consider coloured surfacing for small areas rather than over significant distances to avoid a situation where the change doesn't

achieve the impact it can have.

Buff coloured surfacing is the most

common coloured surfacing. It is

often located within regeneration

schemes in towns and cities due

to the effectiveness. The contrast

between the traditional tarmacked surface and the new buff coloured

surface causes a driver to slow

down, especially if the surface

coloured is combined with other

interventions such as the creating

of a shared environment. It can

be very effective when combined

with a different surface materials.



APPROXIMATE COST

£20,000 - £60,000 per site

Examples of Intervention



Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Coloured surfacing can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway Signage (see page 1-2);
- \Rightarrow **Build-Outs** (see page 3-4);
- \Rightarrow **Road narrowings** (see page 5-6);
- \Rightarrow Line removal (see page 7-8);
- \Rightarrow 20mph zones / limits (see page 15-16);
- \Rightarrow Surface materials (see page 17-18).

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VIRTUAL FOOTWAYS

Providing an area for pedestrians to walk when a footway isn't deliverable

Benefits of Intervention

- Provides a safer provision for pedestrians where there is insufficient space for full footway construction;
- Reduces carriageway widths, which should reduce traffic speed;
- Encourages walking in areas where there may be concern;
- Can be low cost to implement;
- Provides additional protection to pedestrians in the most key areas in villages such as schools / shops.

Drawbacks of Intervention

- Speed reduction may be low depending on the location;
- Not suitable in carriageways that are narrow as two-way traffic will not be able to pass;
- Will require more interventions to be effective.

Key Intervention Headline

Virtual footways may reduce traffic speed slightly but provide a greater safety provision for pedestrians in key areas.

Description

A virtual footway is when road markings (and sometimes coloured surfacing) is used to provide designation for pedestrians when there isn't sufficient space or opportunity for a full footway construction. Virtual footways often provide links to key trip generators such as schools, village centres, and open spaces.

A virtual footway should only be

implemented when it isn't feasible

to deliver a footway. It isn't

intended to be used as a cheaper

alternative. A virtual footway is

continuous white line that is on the

edge of the carriageway. Whilst it provides no physical segregation,

drivers are usually considerate

and provide ample space when

passing. Using coloured surfacing

can increase the visibility of the

designated

usually

virtual footway.



APPROXIMATE COST

£5,000 - £20,000 per site

Examples of Intervention

by

а



Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Virtual footways can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow **Road narrowings** (see page 5-6);
- \Rightarrow Line removal (see page 7-8);
- \Rightarrow Speed limit extension (see page 11-12);
- \Rightarrow **20mph zones** / limits (see page 15-16);
- \Rightarrow **Pedestrian crossings** (see page 23-24).

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PEDESTRIAN CROSSINGS

A safe location for pedestrians to cross either controlled or uncontrolled

Benefits of Intervention

Description

- Provides a safe location for pedestrians to cross with appropriate site lines & visibility;
- Controls the locations where pedestrians will cross, reducing the risk of collisions in other locations;
- Drivers likely to identify the crossing points and slow down;
- Can be low cost to implement;
- Integrates with other interventions that can support the reduction in traffic speed to improve safety.

Drawbacks of Intervention

- Speed reduction may be low without other interventions;
- Stakeholders may desire controlled crossings instead;
- Can create a more urban environment with inappropriate design.

Key Intervention Headline

Pedestrian crossings may reduce traffic speed slightly but provide a greater safety provision for pedestrians in key areas. A pedestrian crossing provides a safe location for pedestrians to the carriageway. А cross pedestrian crossing can be controlled or uncontrolled. A controlled crossing would include a Zebra crossing or a signalized Controlled crossings crossing. require reqular demand from pedestrians to avoid drivers expecting no pedestrians to cross.

A uncontrolled crossing is where there is infrastructure in place for

pedestrians to cross such as

dropped kerbs, and tactile paving,

but there is no right of way. These

should be sited in locations with

good visibility to ensure both

pedestrians and drivers have good

residential roads it may be

possible to implement continuous

footways, which provide priority for

pedestrians over vehicles. These

are not suitable on busier roads.

Across

small

lines.

sight



APPROXIMATE COST

£8,000 - £30,000 per site

Examples of Intervention



Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Pedestrian crossings can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow **Road narrowings** (see page 5-6);
- \Rightarrow Speed limit extension (see page 11-12);
- \Rightarrow **20mph zones / limits** (see page 15-16);
- \Rightarrow Surface materials (see page 17-18);
- \Rightarrow Surface colour (see page 19-20).

FORMALISING PARKING

Providing on-street parking in areas suitable that will slow traffic

Benefits of Intervention

Description

- On-street parking can be an effective traffic calming feature;
- Formalising parking controls where the parking provision is provided, maximising the safety aspect;
- Can integrate other interventions including green infrastructure;
- Can be low cost to implement;
- Likely to be well supported by local residents who may struggle with onstreet parking due to demand.

Drawbacks of Intervention

- Inappropriate parking locations may compromise safety and visibility, which may increase risk of collisions occurring;
- Insufficient space within the public highway may cause issues;
- More pleasing designs likely to be costly.

Key Intervention Headline

Formalising parking has the potential to reduce traffic speed by up to 3-4mph based on data analysis from previous sites. On-street parking can be an effective form of traffic calming. It reduces the width of the carriageway and often requires traffic in one direction to stop and give-way to opposing traffic. Formalising areas of unrestricted parking in villages can provide benefit to residents whilst assisting in the reduction of speed and improvements to road safety.



APPROXIMATE COST

£5,000 - £50,000 per site

Examples of Intervention



One of the most common issues with on-street parking causing issues in villages is where vehicles park inappropriately. Formalising parking arrangements provides control as to where the parking provision is provided. This ensures it can be utilised to reduce speed whilst improving road safety within the village. In some locations it will be possible to integrate other interventions such as road narrowings and green infrastructure to enhance the area.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Formalising parking can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow **Road narrowings** (see page 5-6);
- \Rightarrow 20mph zones / limits (see page 15-16);
- \Rightarrow Surface materials (see page 17-18);
- \Rightarrow Surface colour (see page 19-20);
- \Rightarrow Green infrastructure (see page 27-28);

GREEN INFRASTRUCTURE

Integrating sustainable design features into road safety interventions

Benefits of Intervention

Description

- Significantly enhance the villages, creating a more welcoming environment for residents / visitors;
- Integration with road safety interventions will create proposals more in line with a rural locatiion
- Provides the opportunity for communities to get involved in the maintenance and upkeep;
- Can be low cost to implement;
- Likely to be well supported by local residents.

Drawbacks of Intervention

- Will not be effective at reducing traffic speed and improving road safety without other interventions;
- Limited space may prevent some locations being able to integrate measures within interventions;
- More pleasing designs likely to be costly, with higher up keep costs.

Key Intervention Headline

Green infrastructure can turn traditional road safety interventions into more aesthetically pleasing measures. Green infrastructure (GI) is a great example of integrating other design features into road safety interventions, which can significantly enhance local environments and protect villages. There are a number of methods to achieve this including greenery, rain gardens, and sustainable drainage.



APPROXIMATE COST

£2,000 - £10,000 per site

Examples of Intervention



the potential All green infrastructure opportunities integrate with road safety interventions. The most common examples include planting and rain gardens that can be incorporated into traffic calming measures such as build outs and narrowings. In Willand village, GI will support the aims and objectives of the Parish and effort should be made to integrate GI into all road safety interventions.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Green infrastructure can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway signage (see page 1-2);
- \Rightarrow **Build outs** (see page 3-4);
- \Rightarrow **Road narrowings** (see page 5-6);
- \Rightarrow Formalising parking (see page 25-26).

DECLUTTERING

Removal of unnecessary street furniture to reinforce village environment

Benefits of Intervention

- Removes street furniture, which will create an environment more befitting of a rural location;
- Reduces the ongoing maintenance liabilities associated with the street furniture;
- Very low cost to remove pieces;
- Provides opportunity to incorporate traffic signs to provide clear messages that may be more conspicuous to drivers.

Description

Over recent time. village environments have often been subject to the delivery of various new street furniture for a variety of reasons such as safety. accessibility, and for guidance. Whilst many pieces of street furniture are crucial for all road users, it is likely that various pieces can either be incorporated with others or removed completely.



APPROXIMATE COST

£500 - £1,000 per site

Examples of Intervention



Decluttering unnecessary street furniture from villages will support the process of enhancing village environments to create a more befitting setting for Willand Parish Council. Examples of street furniture that may be able to be removed includes duplications of signage, old signage, guard railing, unnecessary road markings, and bollards not serving a purpose. It's vital that critical street furniture isn't removed as this may cause safety issues.

Integration of Interventions

Interventions will be effective as a stand alone measure. However, greater improvements are found when interventions are integrated with other compatible interventions. Decluttering street furniture can be integrated into a number of other interventions contained within this catalogue. Those that can be integrated are shown below:

- \Rightarrow Gateway signage (see page 1-2);
- \Rightarrow Line removal (see page 7-8);
- \Rightarrow Speed limit extension (see page 11-12);
- \Rightarrow **20mph zones and limits** (see page 15-16);
- \Rightarrow Formalising parking (see page 25-26).

Drawbacks of Intervention

- Unlikely to result in speed reduction or provide safety improvements (apart from line removal);
- Potential safety risk if necessary street furniture removed;
- Integrating signage to declutter total number of signs may cause confusion with drivers.

Key Intervention Headline

Decluttering will be one of the most effective low-cost interventions that can enhance the local environment