

SUSTAINABLE BUS SHELTERS

'A MODULAR RANGE OF SHELTERS DESIGNED AND BUILT IN CORNWALL FOR CORNWALL'

SECTION 1 : OVERVIEW

SECTION 2 : SHELTER RANGES & OPTIONS

SECTION 3 : F.A.Q. & SUMMARY

TRANSPORTATION UNIT,
CORNWALL COUNCIL
CARRICK HOUSE,
PYDAR STREET, TRURO,
CORNWALL TR1 1EB

TEL - 0300 1234 222



SECTION 1

OVERVIEW

In 2011 Cornwall Council commissioned the design and development of a range sustainable bus shelters as part of a broader strategy to promote the growth of 'green' transport in Cornwall over the coming years. After 3 years of development, prototyping and coordinating local suppliers, the 'DropStop' range has now been put into production and is appearing on roadsides all around Cornwall. These shelters are like no other on the market, being designed and manufactured in Cornwall for Cornwall. The shelters offer the following benefits over traditional metal shelters.

- Low Maintenance with a 50+ year life span compared to a metal shelter of 15 years.
- Distinctive design bespoke to Cornwall, with the ability to add unique features in the future.
- Carbon locked away in wood for 50+ years, producing a near carbon neutral design that will be easy to repair.
- Increased visibility improving road safety and making waiting passengers feel safe.
- Better weather protection.
- Comfortable wooden seating compared to metal or plastic seats.
- Shelters are Equality Act 2010 (DDA 1995 replacement) compliant.
- Can be adapted in many ways to meet the needs of your community or service.



SECTION 2

PRODUCT RANGE

MIDI

SETTING THE STANDARD

INCLUDED

- 2 Benches for 6 People
- 1 Timetable Case
- Low Voltage Lighting
- 2 Bus Flags
- 1 Real Time Passenger Information Bracket (RPTI)
- 10mm toughened glass

OPTIONAL

- Additional Timetable Cases
- Vix Shannon (RTPI) Unit
- Weather Panel
- Polycarbonate Glazing
- 15mm Toughened Glazing
- Bespoke Glazing Vinyl Graphics

The MIDI is the recommended shelter for bus stops in Cornwall. The MIDI accommodates 10 or more passengers and can be easily extended if needed. This makes it the ideal shelter for many of the sites in Cornwall.



SECTION 2

PRODUCT RANGE

MINI & MINI +

INCLUDED

- 1 Bench for 3 People
- 1 timetable
- Low Voltage Lighting
- 2 Bus Flags
- 1 Real Time Passenger Information Bracket (RPTI)
- 10mm toughened glass

OPTIONAL

- Perch Bench for narrow sites
- Additional Timetable Cases
- Vix Shannon (RTPI) Unit
- Polycarbonate Glazing
- 15mm Toughened Glazing
- Bespoke Glazing Vinyl Graphics

The MINI DropStop is designed for bus routes where passenger numbers are small or where the pavement is narrow.

The Mini+ accommodates more people with a longer bench.



SECTION 2

PRODUCT RANGE

MAXI

FOR BUSY BUS STOPS

INCLUDED

- 3 Benches for 9 People
- 2 Timetable Cases
- Low Voltage Lighting
- 2 Bus Flags
- 1 Real Time Passenger Information Bracket (RPTI)
- 10mm toughened glass

OPTIONAL

- Additional Timetable Cases
- Vix Shannon (RTPI) Unit
- Polycarbonate Glazing
- 15mm Toughened Glazing
- Bespoke Glazing Vinyl Graphics

The MAXI is designed for busy bus stops where passenger numbers increase during peak hours.

The shelter can be adapted in many ways to meet specific needs and to support different services. It can be provided fully enclosed; with bike racks or perch seats. There are numerous configurations and designs so its best call and discuss your requirements.



SECTION 2

LOCAL THEMES & SIGNAGE

LOCAL THEMES

All products in the DropStop range have an integrated 'Bus Flag' making the bus stop easy to recognise wherever passengers travel in Cornwall.

Cornwall Council recognise that local communities might want to adapt the design to local requirements and aesthetics beyond the standard range.

If you are looking for a bespoke solution, please enquire about any different options that are available.

Options available:

- A bespoke arrangement of benches and additional timetables.
- Perch seating
- Additional Weather Panels' to suit site requirements.
- Unique lettering or carvings that is machined into the timber.

Make this shelter your own. It is going to be in use for many decades.



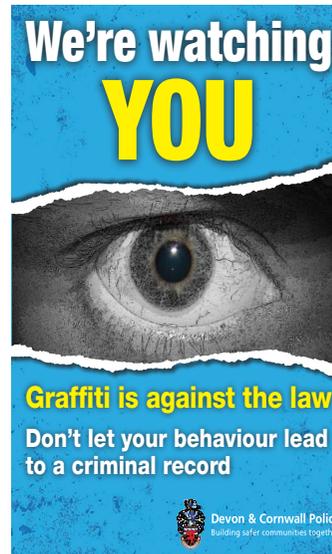
SIGNAGE

All shelters include a standard timetable case suitable for standard 900mm long timetables.

Additional timetable cases can be requested if there are a number of bus companies serving your parish. These are either machined into your shelter before delivery or can be supplied as additional timetable cases to attach at a later date. Where appropriate and free space is available timetable cases can also be used as notice boards for parish events and information, making your shelter an information hub for the community. Larger notice boards can also be fitted on request.



Custom artwork on printed vinyls can be fixed onto the glass, either displaying local artists work or artwork that deters vandalism.



TWO TIMETABLE CASES

SECTION 3

FREQUENTLY ASKED QUESTIONS

QUESTION	ANSWER	CONSIDERATION
Is financial assistance available for a new shelter?	Cornwall Council provides up to £3,000 while budget is available for a new shelter. Check with the Cornwall Council to see if your project is eligible.	Visit Cornwall Council's website: www.cornwall.gov.uk
Do I need government consent or approvals?	You must contact Cornwall Council Highways Department, who will issue consent for the shelter if their criteria are met.	Each bus stop is evaluated with regard to operational problems for buses using the stop; for example, sight lines and pedestrian safety
Do I need planning permission?	Generally you do not need planning permission, but always check as there are exceptions such as conservation areas and if your shelter is a bigger structure than normal.	Check with the Cornwall Planning: www.cornwall.gov.uk/planning .
Is there anyone else I should speak to?	You may need to contact your local police if the shelter is near a busy public house, or a site where youths congregate. If the bus stop position changes and could have an impact upon bus operators, contact them.	Speak with any residents or businesses neighboring the proposed site and ensure that they have no reasonable objections.
Where should the shelter be placed?	Even if the shelter is replacing an old one it is strongly recommended that you identify the direction of prevailing wind and rain. Plan your shelter have its back to wind. This will give the best shelter protection to passengers.	When planning the site keep in mind the visibility of the approaching bus; pedestrian movement around the bus stop and pavement, and access points to and from the bus.
What type of shelter do I need?	Please note that whenever the site is big enough the Midi or Maxi DropStops are recommended as they provide the best shelter protection and ample seating. To choose the right shelter it is important to try and gauge the number of people likely to use it. If possible make a note of the number of users over a 12 hour period or more. Ask regular users of the bus stop for their view on the shelter size required.	Mini: 3-5 persons. Midi: 5-10 persons. Maxi: 10-16 persons. The Midi is the shelter designed for day to day use and recommended for most sites where there is sufficient space.
What size of shelter will fit on my site?	No part of a shelter should be closer than 450 mm from the road so that wing mirrors on tall vehicles will not hit the shelter. The shelter must leave at least 1.2 metres of space on the pavement for a wheel chair or double buggy to comfortably pass by, while 1.4 metres is preferred.	If passenger numbers are expected to increase (for example a new housing development) the DropStop Midi is recommended. If the shelter is sited accordingly, the Midi can be extended at a later date to become a Maxi shelter.
What about the flag pole and timetable?	All DropStops come with a built in flag pole (Totem) and timetable facility. This reduces street clutter and costs.	If there is an existing flagpole and timetable case at the site, the bus operator will decide which facility to use.
Do I need drainage for roof water run off?	DropStops do not drain using a gutter and drainpipe and there is nothing to unblock or require servicing. The roof is designed so that rain water runs off to the back of the shelter across its width. It is useful to have the water run off into permeable paving or a road gutter.	
How is the DropStop installed?	DropsStop are built on a concrete foundation raft. Depending on the site requirement, the raft is fitted before the delivery of the shelter or preferably, the shelter is assembled on the raft at the factory and then delivered and installed as one unit using a lorry with a crane.	The DropStop installation is designed to be quick and its shallow concrete raft will sit above underground services. Installation involves surface digging a 100 to 250mm deep rectangle in the ground and compacting hardcore (dependent upon foundation base).
How are shelters maintained?	Other than cleaning and repairing vandal damage 'Dropstops' are not expected to need servicing. Before undertaking any maintenance or cleaning, obtain permission of the owner of the shelter. Using simple equipment the shelter can be kept clean and graffiti free. See Annex 1 for more detail.	The shelters will be on highway land adjacent to the carriageway. Appropriate advice should be sought from CORMAC and Health & Safety measures taken before the shelters are maintained or cleaned.

SECTION 3

SUMMARY

2.3m x 2.3m

Left



MIDI

Right



1.3m x 2.3m

Left



MINI

Right



4.1m x 2.3m

MAXI

Right



INCLUDED on all shelters

- 2 Bus Stop Flags
- Complete Glazing
- Concrete Base
- 1 Timetable Case
- 1 low Energy LED Light
- Bracket (Vix 'Shannon' RPTI Display)
- Delivery

OPTIONS on all shelters

- Additional Timetable Cases
- Weather Panel where appropriate
- Perch Benches where appropriate
- Alternative Glazing materials
- Glazing Vinyls

EXCLUDED from all shelters

- Site Preparation (Electrical Feeder Pillar, Electrical Trenching, Pavement Preparation & Finishing)
- Assembly on site (if overhead wires prevent standard crane delivery)
- External Connection to Mains (Western Power Distribution)
- Real Time Information Display (Vix 'Shannon')

0.4m x 2.3m



Cantilever



4.1m x 2.3m

Plus



CONTACT

Transportation Unit,
Cornwall Council
Carrick House,
Pydar Street,
Truro,
Cornwall TR1 1EB

Tel - 0300 1234 222

ANNEX 1

MAINTENANCE

Other than cleaning and repairing vandal damage 'DropStops' are not expected to need any servicing. Using simple equipment the shelter can be kept clean and graffiti free. Locally based woodworkers can quickly repair the shelter if needed.

GLAZING

10mm toughened glass or polycarbonate sheet.

**DO NOT USE ABRASIVE
CLEANING PRODUCTS**

General Cleaning



If there is a build up of unsightly grime, then spray with glazing cleaner and wipe off excess with a squeegee

Timetable Glazing

6mm toughened glass is used as standard but some shelters may have 6mm polycarbonate sheet as a replacement. Clean with damp cloth. Do **not** use abrasive products.

Graffiti

Only use paint solvents to remove the graffiti when it is sprayed on glass, being careful not to let fluids run onto the woodwork. Then wash glazing clean and dry with squeegee. If the graffiti is sprayed on polycarbonate then any solvent may crack and break the sheet.

WOOD.

The 'modified' wood that has been acetylated through its complete section. This means it will not rot or decay. However it will grey with age like an ordinary pine.



General Cleaning

If there is a build up of unsightly grime, then wash with a stiff brush, water and detergent. Low pressure jet wash can be used, but keep nozzle at least 300mm away from the wood to prevent the grain being lifted.



Graffiti

1st Step - Water, detergent and kitchen sponge. Scrub the text with sponge, water and detergent to see if the ink will lift out.



2nd Step - If this does not work then use a sharp 'block' plane to plane out the text. Use a fine sandpaper to blend in the surface.



CONCRETE

No sealant has been used on the pre-cast concrete base.

General Cleaning

If there is a build up of unsightly grime, then brush clean with a stiff brush and water. A high pressure jet wash can be used. Where ingrained graffiti is present an anti-graffiti product formulated for concrete may need to be used.



STAINLESS STEEL

A4 316 grade stainless steel is used on all steel parts. This grade of steel should not rust and will remain blemish free for decades.

General Cleaning

If there is a build up of unsightly grime, then wash with a stiff brush, water and detergent.



Graffiti

for graffiti scratched into the surface of the steel, use wire wool to gently rub out the text using a circular action.



LIGHTING

The light is sealed in a splash resistant case and cannot be serviced. If there is a fault call for further advice. The only maintenance required is to clean the glass cover plate with a damp cloth.

ANNEX 2

SELECTING YOUR SHELTER

Timber - The acetylated timber has a EN113 Class 1 Durability rating (the highest comparable to the best teak) and will remain rot free for a minimum of 50 years without any further treatment. The timber has a Janka Surface hardness of 4.1kN which makes it comparable in hardness to mahogany.

Roof - The roof panel is also formed from acetylated pine and does not swell or warp when wet. It comes with a manufacturer's material warranty of 60 years and is provided with a anti-graffiti coating.

Stainless Steel - A4 Grade 316 stainless steel is specified throughout for steel components.

Lighting - A sealed 24V low voltage 10w LED light is provided. A photocell controller switches the light on and off throughout the year to save energy in use.

Concrete Foundation - The shelters are supplied fully assembled on their own pre-cast concrete foundation. The 85% aggregate used in the concrete is all locally source china clay waste. Site preparation is kept to a minimum with no need to excavate the pavement to a depth greater than 250mm, leaving service pipes and underground wires undisturbed. The shelter is lifted and positioned on site using the delivery truck's own crane. If in the future the shelter needs re-siting, then it is simple to pick it up and move it to its new location.

Seating - A generous timber bench is provided as standard for increased comfort, providing a warm seat compared to metal or plastic seats.

Disability Provision - All shelters are Equality Act (DDA 1995 replacement) Compliant.

Glazing - Plentiful glass allows good visibility of oncoming buses. Bus drivers can also clearly see passengers waiting. 10mm thick toughened glass is used throughout and will not degrade or discolour over time. Other glazing solid panels or polycarbonate sheeting can be supplied where there are cases of persistent vandalism.

The MIDI shelter provides the better weather protection than a standard metal bus shelter and is the most cost effective solution for most scenarios.

In Cornwall the wind and rain is normally South Westerly. However each site needs to be considered individually. By either choosing a MIDI-Left or MIDI-Right, it is possible to orientate the shelter to give the most protection against the location's prevailing weather. For sites which are especially exposed an additional 'weather panel' can be fitted to further enclose the shelter and protect waiting passengers from the wind or road spray.

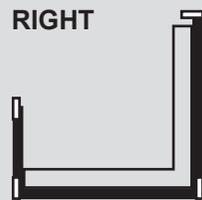
When choosing your shelter, visibility of the approaching bus is also important. Pedestrian

movement around the bus stop and along the pavement also needs to be considered. Consider also passengers boarding and disembarking from the bus. Be aware that buses will also find it easier to align with your stop where the road is straight or has a slight left hand bend. Cornwall Council will be able to advise on the best design that is suitable for your site if informed of these considerations.

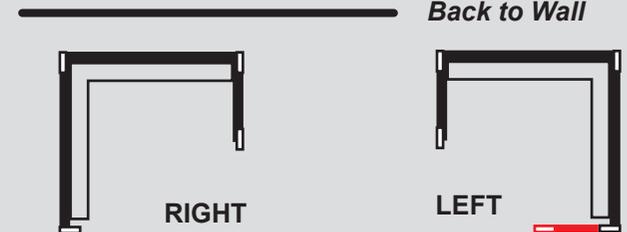
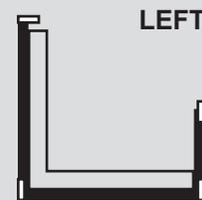
The MAXI can also be arranged to have the same benefits as the MIDI. If you require a MAXI shelter to accommodate all potential passengers, then please call and we will arrange for a site visit to advise the best configuration for your site and circumstances.

MIDI Orientation

The MIDI comes in 2 variants, LEFT or RIGHT. By using the correct variant the MIDI can be correctly placed on a pavement near the kerb or away from the kerb and still provide shelter against the prevailing wind.



Back to Kerb



Optional 'Weather Panel'

ANNEX 3

'ORDER FORM' (SHEET 1 OF 2)

Contact Details		Shelter Location	
First Name		Near to House Building on Landmark	
Surname		Street	
Parish		Town	
Number, House or Building Name		Postcode <i>(must be provided)</i>	
Street		County	
Town		Bus Routes	
County	Post Code	Travelling Towards	
Telephone		Any other information to identify the site	
Email			
Signature	Date:		

Preparation		Not Necessary	Outstanding	Completed	Attached	Section
Reviewed Section 3 - FAQ						
Eligible for financial assistance from Cornwall Council (complete sect 4.1)						
Contacted Cornwall Council Highways Dept. Consent Letter Attached						
Contacted Cornwall Council Planning Office about Planning Permission						
Contacted Police <i>(if necessary)</i>						
Contacted neighboring residents and businesses <i>(if necessary)</i>						
Contacted Bus operators <i>(if necessary)</i>						
Shelter Information						
Location on Google Maps - ONS grid reference <i>(or web link)</i>		Longitude		Latitude		
Are there any overhead cables within 7m of the site		Yes		No		
Pavement width at narrowest point on site		Metres				
Existing Ground conditions where shelter is to be sited		Tarmac	Concrete	Pavers	Grass	other
Is the site level?	YES / NO	If no please indicate magnitude of slope	Slight < 2 deg	Moderate 3 deg	Severe > 5 deg	Other

ANNEX 3

'GRANT APPLICATION FORM' (SHEET 2 OF 2)

1. You are reminded that consent from Cornwall Council to the erection of a bus shelter is needed under Section 5 of the Local Government (Miscellaneous Provisions) Act 1953. This application for a grant should not be submitted until consent has been sought. The Parish Council must contact the Regional Surveyor for written approval.

2. Please note, if the Parish Council are using the Cornwall Council's preferred supplier, Rozen Furniture Ltd (www.rozenfurniture.com) then there isn't a requirement to source two quotes.

3. Please note that on July 1st 2007, England introduced a new law to make virtually all enclosed public places and workplaces in England smoke free. Many bus shelters will now be included within the ban. Please ensure all shelters which require a no smoking advice sticker are correctly labelled. For further guidance and downloadable stickers please follow the link: <http://www.smokefreeengland.co.uk/resources/guidance-and-signage.html>

Application Date:

Signed:

Print Name:

On behalf of: Parish Council

Return to:

Infrastructure and Park & Ride Coordinator
Cornwall Council Passenger Transport Unit
Fal Building, New County Hall
Truro
Cornwall TR1 3AY

The Parish Council of hereby apply to Cornwall Council for a grant towards the purchase and installation of a bus shelter to be built in the Parish.

Please note that the funding will not cover any preparatory groundworks which may be necessary. These must be funded by the Parish.

1. Precise location of the site:.....

A licence to excavate is required for all shelters placed on land maintained by the highways department. This is £190 and will be deducted from the grant.

2. Will the proposed bus shelter be erected on land forming part of the highway?

YES

NO

If YES go to question 3. If NO, please provide proof that the land is owned by the Parish Council

3. If the answer to Question 2 is YES, has Cornwall Council granted the necessary consent? (See side box¹)

YES

NO

4. Estimated Shelter Cost

£.....

5. Have you applied for any other grants? If so please give details including amount applied for or agreed.

YES

NO

6. Is planning permission required for the shelter? If so please obtain the necessary permission.

YES

NO

7. Please provide at least two quotations that have been received for the work. (See side box²)

8. How many people wait for buses at the location this site on a normal day. Please show separate figures for school children using contract buses and the general public using local services.

General Public..... School Children

9. Has the building work started?

YES

NO

If NO, please give an estimate of the starting date.....

Will the Parish Council accept responsibility for insuring and maintaining the bus shelter?

YES

NO