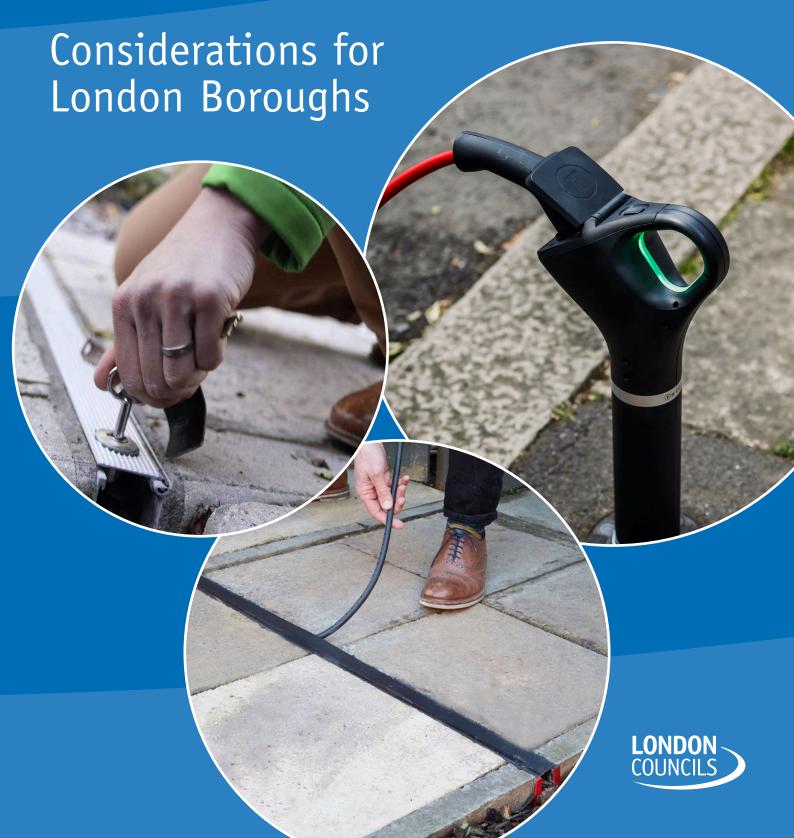
# Cross-footway solutions for electric vehicle infrastructure



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## **Executive Summary**

Among the growing landscape of electric vehicle (EV) infrastructure, local authorities across the country now face the decision on whether to implement 'cross-footway solutions'. This is a new technology that allows residents to charge an EV parked on the highway using a home chargepoint.

Cross-footway charging solutions offer significant advantages for residents without access to off-street parking. Primarily, these solutions allow users to access their home electricity supply for EV charging, which can be cheaper and more convenient than depending solely on public chargepoints. Additionally, when properly installed, they help reduce safety risks associated with trailing or unsecured charging cables across the footway.

As a result of these benefits, the uptake of cross-footway solutions is increasing, supported by local authority trials and government grant schemes aimed at households with on-street parking. In addition, the Office for Zero Emission Vehicles published their guidance on 'Cross-Pavement Solutions for Charging Electric Vehicles'. This provides high-level considerations for local authorities including the areas, regulations and processes to consider when forming policy.

Despite this, cross-footway solutions don't come without challenges and some authorities are choosing not to allow them due to concerns about the potential risks, including public liability, safety, accessibility, as well as uncertainties over the additional resource

and cost implications. One of the primary challenges for local authorities remains the lack of detailed technical advice and experience across the sector to allow for effective decision-making and risk mitigation.

Several local authorities, including London Boroughs, have initiated cross-footway charging trials and, in some cases, permanent schemes for residents. These early implementations provide valuable insights into practical delivery, user experience, and regulatory considerations.

Consequently, this report draws on these examples to identify the various benefits and challenges for local authorities in implementing cross-footway solutions. In doing so, the aim of the report is to help local authorities with the fundamental considerations and decisions involved in implementing cross-footway solutions, while also addressing common questions and concerns raised by other authorities exploring similar approaches.

Although this work has been produced for London Boroughs, this document may also be of use for local authorities outside of London who are in a similar position with cross-footway solutions.

In addition, as this is an ever-changing environment, the information we've provided is likely to need updating following any significant changes in this sector. Therefore, we aim to refresh this guidance when we become aware of notable developments.

<sup>1</sup> In this document the term "footway" is preferred when referring to EV charging infrastructure as it specifically refers to the part of the road reserved for pedestrians. The term "pavement" is also commonly used as a non-technical term.

## 1. Introduction

### **1.1. Electric Vehicle Infrastructure** in London

London leads the UK in electric vehicle uptake, with 193,000 plug-in electric cars and vans registered in the capital or around 10% of the UK total based on 2024 data from Zap Map. This number is growing by around 35,000 newly registered EVs a year, and the Department for Transport (DfT) predicts there will be 1.4 million by 2030. This reflects the UK Government's Zero-Emission Vehicle (ZEV) mandate, which requires all new cars and vans to be zero emission by 2035.

To support the EV transition, the National Electric Vehicle Charging Strategy emphasises the need for a comprehensive EV charging network that prioritises equitable and convenient access to public chargepoints. According to Zap Map data, London has installed around 24,000 chargepoints across the city to date, which is a third of all electric vehicle infrastructure (EVI) across the UK. However, the London EV Strategy sets out that 20,000-40,000 more public chargepoints will be needed by 2030 to sustain the growing number of EV users.

To achieve the National and London visions for EVI, it is essential to establish a charging network that is fit for purpose. There are several key considerations for meeting public charging needs:

- Infrastructure Availability: Installing the right kinds of charging solutions in the right locations to ensure charging is a convenient part of people's usual routines.
- **2. Equitable Distribution:** EVI should be fairly distributed to serve all communities and users.
- **3. Affordability:** Charging costs should be kept reasonable to encourage EV adoption.
- **4. Visibility + Reliability:** User-experience and public confidence in EVs are heavily influenced by the ability to easily access charging infrastructure when needed.

However, the scale and pace of this growth also presents a challenge to London
Boroughs, who engage with residents to identify local charging needs and plan appropriate EVI. Moreover, installing EVI in London is a complex process with bottlenecks and delays caused by a range of factors. These challenges vary on a site-by-site basis but this includes:

- Planning and regulatory restraints
- Roadside space constraints
- Lack of commercial viability
- Funding and resource requirements
- Public awareness and concerns
- Accessibility and reliability issues
- Grid interaction and connectivity
- Grid capacity limitations

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#### 1.2. The role of Cross-Footway Solutions

According to DfT research, 90% of EV users charge at home using a domestic EV charger. This has several benefits compared to public on-street charging, including greater convenience, control, and reliability for the user, as well as lower cost<sup>2</sup>. Consequently, EV ownership is heavily influenced by access to home charging, and households without off-street parking may see slower rates of EV adoption. This is particularly problematic in urban areas like London, where Field Dynamics data highlights that 61% of London households have no access to off-street parking.

To address the disparity in access to home charging, innovative new 'cross-footway solutions' allow residents to safely run a charging cable across the footway. In doing so, users can charge an EV parked on the street using a home chargepoint. Thus, allowing more homes to access the benefits of home charging and building a stronger case for EV ownership, facilitating greater EV uptake.

Despite the potential benefits, the market for these cross-footway solutions is in its nascent stages, with implementation largely confined to small-scale trials and early rollouts by local authorities. The benefit of trialing these solutions is that it allows local authorities to ensure that new technologies comply with safety and construction standards, as well as align with local transport plans and meet the needs of the community in a cost-effective manner.

#### 1.3. Purpose of the Report

This report is intended for local authorities across London and explores how crossfootway solutions can be integrated into a wider EV charging network. While the primary focus is on residential streets without off-street parking, these solutions are also applicable in other settings, including car parks, council land (e.g. depots), and adjacent to council apartments or workplaces. Several organisations provide quidance on cross-footway solutions, including the Office for Zero Emission Vehicles (OZEV), which recently published its quidance on cross-pavement solutions. In addition, the Energy Saving Trust offers online information for local authorities, as well as the Local Government Technical Advisers Group in it's report on EV charging on the public highway.

The purpose of the London Councils report is to supplement existing information and support local authority decision making by focusing on the unique context, challenges and opportunities related to cross-footway charging in London. Case studies have also been developed to highlight trials by local authorities, drawing on the processes and best practices that have emerged.

Yet, it remains up to local authorities to assess the potential risks and benefits involved, while seeking further expert advice where necessary. Local authorities should also consider how and if cross-footway charging complements existing local EV charging strategies and transport plans.

<sup>2</sup> Variable domestic energy tariffs can be as low a 7p/kWh, compared to an average of 52p and 76p/kWh for slow/fast and rapid/ultra rapid respectively, according to Zap Map data from April 2025.

## 2. Cross-Footway Solutions

#### 2.1. Types of Solution

At the time of writing there are various cross-footway charging products available on the market, offering differing design and technical features. Yet, these are not widely deployed due to the early development of the market and limited number of local authority approvals. However, as local authority trials foster supportive policies and public awareness increases, further innovation is expected to lead to a growing range of products over time.

Cross-footway solutions can be grouped into those which house the charging cable in an open or enclosed channel installed across the footway surface, those with a submerged cable underneath the footway, and other solutions not as widely tested or approved by local authorities.

#### 2.1.1 Surface Channels (Shallow/Enclosed)

 Design: Charging cable is housed within a recessed channel that spans the width of the footway.

These channels have an integrated closing mechanism that secures the cable when

in use and leaves no gap in the footway. Systems also have anti-slip features on the surface and can be locked in the closed position.

- Materials: Channel can be constructed from a flexible PVC, solid metal, or a combination of a solid metal channel and more flexible rubber base, depending on the product.
- Installation: The installation process may vary depending on the size of the solution and excavation required to fit it.

In general, a shallow cut is made into the footway surface under 100mm deep. The channel can be cut to size, and an approved mortar or bonding material is used to secure the channel to the sub-base. Asphalt or mortar is applied to produce a flush and matching finish with the surrounding footway.

These solutions are suitable for a range of footway surface materials (tarmac, paving or brick) and a slight incline can be added to aid drainage. More flexible solutions can be adjusted to match the footway profile. Installation times range from 1-3 hours per channel.







Supplier examples: Kerbo Charge (image 1, left), PaveCross (image 2, middle), Charge Gully (image 3, right)

#### 2.1.2 Surface Channels (Deep/Open)

- Design: Charging cable is housed within an open recessed channel that spans the width of the footway. The system is designed to fit flush with the footway and has a hard wearing bristle strip to prevent dirt accumulation in the channel; it also has anti-slip features on top.
- Materials: Channel is a solid metal construction.
- Installation: The installation is similar
  to other surface channel products but
  necessitates the removal of a deeper cut
  in the footway over 100mm deep to fit the
  larger channel.

An approved mortar or bonding material is used to secure the channel to the sub-base. Asphalt or mortar is applied to produce a flush and matching finish with the surrounding footway surface, which can be tarmac, paving or brick. A slight incline can be added to aid drainage. Installation times range from 1.5-3 hours per channel.

Supplier example: Gul-e (image 4)

#### 2.1.3 Sub-Surface Channels

- **Design:** The charging cable runs completely under the footway, either in a submerged housing or as a sub-surface cable. The cable is permanently fixed directly to the household power supply through a kerbside connection point. This sits flush with the footway, leaving no gap in the surface.
- Materials: Chargepoint can be made of durable metal and plastic components.
- Installation: Installation involves excavation of the footway to connect the roadside chargepoint to the household power supply, running the cable within a deep channel over 100mm.

The footway is reconstructed using surface materials to match the existing footway, which can be tarmac, paving or brick. Installation time is 3 hours or more.



Supplier example: Trojan AON (image 5)

#### 2.1.4 Other Solutions:

We are aware of other solutions to accommodate trailing EV charging cables that use other methods to cross the footway. These include temporary solutions such as flexible matting to cover the charging cable, as well as permanent solutions like gantry structures to lift cables over the footway and charging modules that fit into the footway by replacing the concrete kerb.

While these solutions may allow for cross-footway charging, they are either installed in a very small number of cases and/or they have not been widely tested or approved by local authorities for cross-footway EV charging. It is recommended that local authorities take professional advice on the technical, safety, and liability implications of such solutions before committing to them.

#### 2.2. Benefits and Challenges

To assist local authority decision making on the use of cross-footway solutions, this section outlines the main benefits and challenges involved throughout their life cycle. These have been gathered through conversations with local authority officers and cross-footway solution suppliers. It is important to note that some of the benefits and challenges below may be exacerbated or reduced as cross-footway solutions become more widely and densely implemented within London. Therefore, it is important for each local authority to weigh the risks against the benefits in a local context, with expert advice as required.



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2.2.1 Benefits of cross-footway solutions		
Charging availability:	Cross-footway solutions can be integrated into a broader EV charging network alongside public chargepoints, enhancing the quantity and availability of EV charging infrastructure across boroughs.	
	There may also be locations where cross-footway solutions offer the most feasible and cost-effective way for local authorities to provide on-street charging. For example, cross-pavement solutions may be viable where public chargepoints are not due to space restrictions, grid connectivity issues, or the presence of existing street furniture.	
Charging convenience:	Access to home charging allows EV users to charge near their property. This is the preferred mode of charging for EV users as it is more convenient, flexible, and reliable. Therefore, greater access to home charging could encourage more households to adopt an EV.	
	Additionally, disabled residents and those with mobility restrictions may find cross-footway charging near their homes particularly beneficial. This can eliminate the need to travel to public chargepoints, which may not always be accessible or conveniently located.	
Charging cost savings:	Users can benefit from lower home electricity tariffs for charging an EV. In most cases, these costs savings offset the costs associated with applying for, buying, installing, and maintaining the cross-footway solution (see Section 2.3 for a summary of these costs).	
	In addition, residents can access government grant funding to reduce the up- front costs of installing a cross-footway solution and or home chargepoint.	
Charging equity:	Many households in London have no access to off-street parking, so cannot access the benefits of home charging. Cross-footway solutions can address gaps in public chargepoint distribution and reduce disparity between areas with off-street parking and those without. In doing so, giving all households the same opportunity to access the benefits of home charging.	
Early adoption:	The convenience and lower charging costs associated with cross-footway charging is likely to increase public demand, particularly as the UK transitions to EVs and public awareness of cross-footway charging products grows. Therefore, resident requests and pressure on local authorities will likely grow.	
	Local authorities that trial and adopt this technology early may benefit from the opportunity to develop the knowledge, skills and processes required while public pressure is relatively low.	

Resilient EV charging network:	Cross-footway solutions create a more diverse charging network and open opportunities for shared EV charging, as well as vehicle-to-grid (V2G) systems, and bi-directional charging for households. This aligns to the government vision for a more adaptable and resilient charging network and national grid.
Safety:	Trailing or dangling of EV charging cables across the footway without a dedicated cross-footway solution is a growing problem in London. This is a response to inadequate public chargepoint provision locally, and a way to access more convenient and low-cost home charging.
	However, it can obstruct the footway and poses a trip hazard, particularly for those with visual impairments, the elderly, or individuals with mobility issues. In addition, cables left on the footway are susceptible to damage from foot traffic, weather conditions, and vandalism, resulting in electrical safety risks. This also leaves the owner open to legal liability for any damages or injury.
	As a result, local authorities generally prohibit residents from trailing cables across the footway. The use of temporary cable covers or mats to reduce risks is also widely banned due to safety, accessibility, and liability concerns.
	Yet, without an approved alternative available, EV users are more likely to accept or ignore these risks. Council-approved solutions for charging across the footway offer a safe way for residents to charge an EV on the street, mitigating the risk of trailing cables and making the footway more accessible.
Scalable:	Cross-footway solutions are relatively easy to manufacture and install at scale. They can be deployed quickly, efficiently, and with minimal disruption, to increase public access to charging where it is needed. In addition, some suppliers provide additional managed services and work with local authorities to carry out resident engagement, installation, maintenance and customer service. Thus, reducing the responsibilities and burden for local authorities.
Security:	Some solutions have lockable mechanisms or storage systems that reduce potential for cable theft and vandalism. Locks can also be used by the local authority as an enforcement tool to prevent improper use.

2.2.2 Challenges related to cross-footway solutions	
Accessibility:	Currently, no cross-footway solutions are fully inclusive or compliant to a PAS 1899 standard and some users may have difficulty with some or all of the available products. For example, Motability has identified several accessibility challenges associated with cross-footway solutions, particularly for users with stretching, bending or kneeling restrictions.
Scalable:	Certain properties will require additional electrical works to upgrade their electrical systems to deal with the higher power requirements of EV charging. This can involve the additional Distribution Network Operator (DNO), and electricians work on top of the chargepoint operator works. Depending on the work required, this can result in additional costs for the resident and local authority.
Earthing considerations:	There is an electric shock risk if a person comes into simultaneous contact with a charging EV on the highway and other electrical conductors on the highway (e.g. lamp column or a second charging EV) – providing both electrical systems are on separate earthing systems, both with an earth or neutral fault.
	To mitigate this risk, electrical safety standards (e.g. IET Code of Practice for EV Charging Equipment Installation) suggest a minimum 2.5m exclusion zone between electrical supplies on separate earthing systems and potential conductors (underground and overground). Yet, there is no dedicated electrical safety standard for cross-footway charging.
	Technical solutions, such as the use of Protective Earth and Neutral (PEN) devices can help to detect and prevent faults to reduce risks associated with simultaneous earthing (see IET Guidance on PEN detection devices).
	However, it is challenging for local authorities to completely mitigate risks, and these risks may vary locally. Local authorities should assess and define acceptable local risk levels and appropriate mitigation measures. Local authorities should also consider how they will manage separation distances between two charging EVs on the highway.
	In addition, local authorities should ensure that appropriate electrical and site suitability checks are conducted by qualified professionals. Installation should also adhere to relevant regulations and safety standards - such as those set by the IET and the DfT's chargepoint installation requirements (which includes criteria for installing cross-footway solutions). As local guidance may differ, authorities are encouraged to consult their DNO.

Emergency electrical isolation:	Emergency services must be able to shut off power in the event of an incident (e.g. EV battery fire while charging on the highway). Solutions that have a permanent and fixed connection to the electricity supply may risk preventing or impeding emergency access and isolation.
Footway and streetscape impact:	Cross-footway solutions should only be installed where they do not impact significantly on pedestrians and other footway users. High footfall or sensitive locations are unlikely to be appropriate.  Consideration should also be given to future projects in the location(s) concerned (particularly for active travel), as well as any restrictions and increased costs that installing cross-footway solutions possible street enhancements would cause.  Furthermore, there may be additional street cleaning issues and street clutter or trip hazards if cables are not used correctly. The TfL Streets Toolkit should be referenced before particular products and individual locations are selected.
Lack of national direction or standards:	The OZEV cross-pavement charging guidance has had mixed reception from boroughs. This is largely due to a lack of detailed technical information or standards to assist boroughs in decision making or policy development (e.g. electrical safety, type and design standards, regulatory compliance, site selection, installation, and maintenance).  The 9-month delay in publishing guidance, following the EV chargepoint grant for residents, was also unhelpful as it increased resident requests while offering no information or support for local authorities.  There remains limited technical information available, aside from guidance published by the Energy Saving Trust and Local Government Technical Advisers Group.

## Groundworks and reinstatement:

Installation may interfere with existing underground utilities and cause disruption if not properly coordinated with utility providers, particularly in relation to solutions which require more extensive groundwork.

Improper installation or inadequate compaction can affect the structural integrity of the footway. This can lead to issues such as cracking, sinking, or uneven surfaces, as well as visual impact on the streetscape.

In addition, the footway surface and installed solution must be reinstated to the required standard and working tolerances after any highway works, as defined by the DfT in the Specification for the Reinstatement of Openings in Highways (SROH). Importantly, this includes checking any work undertaking by utilities companies and regular highways projects.

The DfT has published an addendum to the SROH, which addresses the reinstatement of highways for cross-footway charging solutions.

## Highway safety:

Cross-footway solutions are reliant on residents using the product correctly and keeping it in a safe working condition (e.g. removing blockages). Solutions could pose a hazard to pedestrians if not used or maintained correctly.

In addition, solutions may impact the condition of the surrounding footway, especially if installed poorly or not maintained. This could increase local authority costs related to ensuring that the footway condition complies with highway standards.

## Liability and Insurance:

Local authorities should consider who is responsible for costs arising from the negative impacts of a cross-footway solution on users of the public highway (e.g. injury). This may involve seeking legal advice to develop a robust mechanism for indemnifying the local authority and transferring liability to a resident or household (e.g. via a licence).

In addition, residents should have suitable public liability insurance to cover potential damages resulting from use and misuse of the cross-footway solution. However, there remain uncertainties around the level of cover required and which insurance providers and policies include this.

Obsolescence:	When a resident with a solution moves home, local authorities are responsible for maintaining and ensuring the safety of the footway. This may include removing the solution or facilitating the transfer of ownership. A transfer of ownership involves updating relevant permits and licences and providing the new resident with necessary information.  Local authorities may also consider the environmental and end of life impacts of cross-footway solutions based on the materials used, installation method, and how the product is decommissioned.
Parking disputes:	A cross-footway solution does not guarantee residents a parking space outside their property. This may lead to disputes among residents and complaints over parking and charging access, that require management by the local authority.
PFI highways management:	Installing cross-footway solutions under a Private Finance Initiative (PFI) managed public highway can present numerous challenges. This may require coordination and negotiation to define who is responsible for things like permissions, installation, maintenance, liability, and costs.
Planning permission:	Planning rules to install a domestic chargepoint depend on whether the dwelling has off-street or on-street parking (see Appendix 1 for an overview of the planning process).  For properties without off-street parking, 'Permitted development' rights do not apply, since the chargepoint will be used to charge a vehicle on the public highway. In these circumstances, residents are required to apply for planning permission from the Local Planning Authority, adding extra cost and bureaucracy for residents.
	Chargepoint installers should ask the resident for evidence that the Local Highways Authority has approved a cross-footway solution, before fitting a domestic chargepoint at a property without a driveway.  For approval, a domestic chargepoint installation must meet the Town and Country Planning (General Permitted Development) (England) Order 2015, including chargepoint size, location, power output restrictions.  For many conservation areas or listed buildings, 'Permitted development' rights may also not apply. Although, planning permission rules and process may vary depending on the local planning authority.

## Property constraints:

Cross-footway solutions won't be suitable for many properties and are not a totally equitable approach to providing EVI where installation is impossible or challenging, such as:

- Proximity issues will affect how many residents in one street are able to have a solution installed outside their home.
- Not a viable solution for residents in flats above the ground floor (and the ground floor in some circumstances).
- Tenants (including leaseholders), which total to around 3 million of London's residents, will face challenges in getting approvals to install a chargepoint on their property. The addition of a landlord approval in the process will add time and risk of rejection to the installation. Although, at the time of writing, we are not aware of trials featuring tenants, so we are unable to give more information.
- Properties without on-street parking immediately outside will not be suitable for gullies such as those located on street corners, at junctions, or significant access points.
- Certain EV lease schemes may provide a home chargepoint that is not compatible with cross-footway charging and doing so could invalidate the lease.

## Public EVI impacts:

Given the limited roll out of cross-footway solutions, there are uncertainties around how large-scale adoption will influence the public charging network. Local authorities need to consider how cross-footway charging aligns with their EV and transport strategies, as well as the cost-effectiveness of cross-footway solutions compared to public on-street chargepoints, which each serve multiple users and generate revenue (e.g. through concession contracts).

# Resource and cost implications:

Implementing cross-footway solutions is reliant on local authority oversight. This can vary depending on exactly how they are implemented (see Appendix 2 for a comparison of different approaches). Below are cost and resource considerations for local authorities:

- **Installation:** Materials, equipment, labour, re-training, and any necessary inspections or modifications to the footway.
- Maintenance: Personnel and equipment to conduct inspections, ongoing footway maintenance, and potential replacement, repairs, or removal of the cross-footway solution.
- **Electrical:** Potential for local electrical upgrades to deal with the higher power requirements of EV charging, as well as the need for electrical safety testing.
- Administrative: Systems and personnel to process applications and planning approvals, issue licences, track and manage installations, and handle resident engagement and complaints.
- Management: Local authorities may need to consider how crossfootway charging impacts internal responsibilities and processes, as it requires specific skills and expertise (e.g. legal, electrical, planning, highways, public engagement).
- **Liability:** Potential costs related to insurance and litigation resulting from injury on the public footway.
- **Enforcement:** Systems and personnel for ensuring that residents use installations correctly and address misuse or safety issues.

#### 2.3. Considerations for Local Authorities

This section outlines the key considerations for the implementation of cross-footway solutions, using information from local authorities and suppliers. The considerations outlined in this document are intended to serve as a guide and should be adapted to suit the local context. Where appropriate, professional or expert advice should be sought to ensure suitability and compliance with relevant local processes, standards, and regulations.

#### 2.3.1 Resident costs/fees

The table below gives an estimate of the costs of installing a cross-footway solution, as well as the maximum and minimum values based on data from local authority trials at the time of writing. These costs may vary depending on how cross-footway channels are implemented locally.

In general, residents pay the various costs related to purchasing, installing, and maintaining a cross-footway solution.

In certain circumstances some or all these costs may be subsidised by the authority and/or supplier. For example, if the resident lives in a council-owned property, has a disability, or if a trial is being conducted by the local authority.

Fees	Minimum cost	Maximum cost
Resident application fee/deposit (one-off fee for site inspections and eligibility checks)	£0	£100
Planning application fee	N/A	~£350
Highway application licence fee (under Section 50 of the New Roads and Street Works Act 1991, non- statutory undertakers can apply for a licence to install a cross-footway solution)	£0	£100 (annual or one-off fee)
Highway operation licence fee (Section 178 of the Highways Act 1980 offers a legal route for residents to use a cross-footway solution via a licence with terms and conditions for usage)	£0	£100 (annual or one-off fee)
Cost of solution, materials, and installation	£850	£3,000
Cost of domestic chargepoint	£900	£1,250
Household electrical enhancements	£0	£2,000
Electrical certification (RCD test every 6-12 months and full electrical test certificate every 5 years)	£0	£100 (annual cost)
Total	£1,750	£7,000

Based on these costs and using Zap Map's calculations from April 2025 for typical annual vehicle fuel savings by switching to home charging, the repayment time for a cross-footway solution ranges from 1.6 to 9 years. This varies depending on the owner's driving and refuelling behaviours, as well as fuel/energy prices, but indicates that drivers could pay off a cross-footway solution and save money by accessing home charging.

In addition, under the UK government Electric Vehicle Chargepoint Grant for Households with On-Street Parking, residents can claim up to £350 for the cross-footway solution or 75% of the total cost of installing a home chargepoint. This scheme was launched in 2024 and has been extended to April 2026.

#### 2.3.2 Application, Planning, and Approval

- 1. Application form: This typically includes resident contact details and the address of installation. Additional eligibility questions can also be included, such as property ownership status, EV ownership, site information, home chargepoint installation. The application process should also include a clear user agreement, with information on the relevant conditions and payments required (see Appendix 4 for examples).
- 2. Supporting documents: Residents may need to submit additional evidence, such as a site plan, design, photos of the proposed location, and proof of ownership or tenancy.
- **3. Planning permission:** Necessary planning permissions for a domestic chargepoint must be obtained and paid for by the applicant. The requirement for planning permission can depend on the specifics of the property and the local regulations.

To make the process easier for residents, some Local Planning Authorities have amended local permitted development rights to allow the installation of a domestic chargepoint without planning approval, even if the property has no off-street parking. Other local authorities make it clear that no enforcement action will be made against properties without planning permission (see Appendix 3 for an example letter). However, this approach usually requires residents to meet some criteria, such as:

- Domestic chargepoint meets the requirements of the Town and Country Planning (General Permitted Development) (England) Order 2015 and has relevant electrical certifications provided by the installer.
- Property has local authority approval (e.g. cross-footway solution licence).
- A cross-footway solution is installed by a council-approved installer before the chargepoint is used.
- Resident must follow all relevant guidelines regarding the safe use and maintenance of the domestic chargepoint and cross-footway solution.
- 4. Local authority review: In addition to planning permission, the local authority should assess resident eligibility and site suitability for a cross-footway solution. Additional fees for admin costs, desktop checks, and site inspections can be included in the resident's application fee.

A detailed process map for eligibility and planning checks is outlined in Appendix 1. The TfL Streets Toolkit should also be consulted as part of the planning and site eligibility process. Some key factors in deciding site suitability and eligibility include:

- The site must be on a public highway.
- The resident has no access to off-street parking (inc. garages).
- The site should not have parked vehicles wholly or partly on the footway.
- The site must have a suitable on-street parking space (e.g. not at a junction).
- No dedicated parking bays or parking restrictions (e.g. yellow lines).
- No grass verges, trees, or dropped kerbs.
- Suitable footway width and condition (e.g. uneven or other irregularities).
- Suitable property type with appropriate access from the private electricity supply to the parked vehicle.
- Whether the site is a conservation area or has any other development restrictions.
- Minimum of 2.5m between the installation site and any metal object connected to an electricity supply, (e.g. lamppost, utility cabinet or parking machine).
- A local authority approved crossfootway solution must be used.
- EV charging equipment with relevant electrical safety certification and compliant to relevant installation requirements. Local authority approval may also be needed before an installer fits a chargepoint at a property without off-street parking.

5. Approval: Local authority can send an approval/rejection letter to the resident. If approved, this can be accompanied by a written quotation for the installation costs and any other upfront fees to be paid by the resident before installation is scheduled (e.g. licence fee).



#### 2.3.3 Installation

The installation should be conducted by an approved contractor (e.g. the existing highways contractor or a supplier approved by the local authority). The process itself is similar to vehicle crossing or dropped kerb works and can be broken down into the following steps:

- 1. Procurement: In most cases, the cross-footway solution and installation materials are procured by the local authority, who should research the market and identify/approve suitable suppliers. Procurement routes may vary depending on the number of installations taking place, as well as based on local authority requirements/procedures.
- 2. Excavation: Generally, the footway must be secured to prevent public use, the site can then be inspected and marked out. Excavation processes and requirements will vary based on the site and the solution involved, see Section 2.1.
- **3. Installation:** Following groundwork, the solution can then be installed and secured using appropriate materials to

- ensure stability and durability. Again, requirements will vary based on the site and the solution involved, see Section 2.1. More complex installations may require additional costs to be passed onto the resident.
- 4. Footway restoration: The footway around the channel is restored to its original condition. As outlined in Section 2.1, some solutions are designed to fit flush with the footway, while others are fitted under the footway surface. Thus, requiring different approaches to restoration. The DfT has also published specific guidance which addresses the reinstatement of highways for cross-pavement charging solutions.
- 5. Final inspection: The installation must meet all safety and construction standards to ensure it does not pose a hazard to pedestrians. The installer should inspect the footway and test the charging cable and its electrical connections. Once complete, the local authority can grant formal consent to the resident for use of the cross-footway solution.

#### 2.3.4 Ownership

There are various approaches to ownership of cross-footway solutions, whether it be the local authority, resident, supplier or even a company or community group who retain ownership. This can influence who is responsible for purchasing, installing, and maintaining the solution, as well as which licences and permissions are required (see Appendix 2 for a comparison of approaches).

The most common approach typically involves the local authority owning the equipment and licensing it to the resident (see Section 2.3.5 for more on licensing). The authority will generally oversee

procurement, installation, and maintenance of solutions. This can be managed directly by the authority and its highways contractors or can involve the supplier to varying degrees.

For example, suppliers may offer installation and product warranties to guarantee the safety and durability of their product. If a quality issue arises during this period, the supplier will organise necessary repairs. In addition, many suppliers can directly provide turnkey solutions for the local authority including installation, maintenance, customer support, and backoffice services.

#### 2.3.5 Licensing and liability

Typically, to permit installation and use of a cross-footway solution, local authorities issue a Section 50 licence (under the New Roads and Street Works Act 1991) or a Section 178 licence (under the Highways Act 1980). Other licences may be required for different types of solution (e.g. structures to lift cables over the footway). Local authorities should seek legal advice on which approach to use.

The licence can be issued by the local authority for a set time (e.g. 12 months), requiring renewal after this period for continued access to cross-footway charging. The resident or 'Licensee' must also agree to the licence terms and conditions as part of the user agreement, usually required within the application stage. User agreement

examples are shown in Appendix 4 and can include a range of conditions depending on local authority's requirements. It is particularly important that local authorities include appropriate conditions in the licence to ensure the rights and responsibilities of all parties are clearly defined, some examples include:

• Compliance: Licensee must comply with all regulations and guidelines and must ensure all information submitted in their application is accurate. The local authority can reserve the right to lock, block access to, or remove the channel if needed (e.g. in the event of misuse, complaints, liability risks, as well as if alterations to the footway, parking controls, or local utilities are required). This clause could also state

that the local authority will not pay compensation for blocking access and may include penalties for the resident in certain circumstances (e.g. additional costs for removal/locking of the solution due to misuse).

- Earthing: Since the Licensee will be running a live EV charging cable through the public footway, additional electrical safety measures can be requested along with relevant certification or evidence provided by a qualified electrician. For example:
  - Installing a Protective Multiple Earth compatible charger with 'PEN' fault protection.
  - Having an 'earth rod' installed within the property boundaries.
- Electrical certification: The licence can also mandate periodic electrical safety inspections on the EV charger equipment to comply with Construction (Design and Management) regulations and BS 7671, as well as relevant electrical certificates provided by the chargepoint installer.

Furthermore, the licence may require ongoing electrical checks to ensure the continual safety of cross-footway charging. This can include an RCD test every six months and a full electrical test certificate every five years. The responsibility to carry out this electrical testing could sit directly with the local authority or with the resident, who should submit relevant certificates from a qualified electrician to be checked by the local authority.

- Insurance: The Licensee should have adequate public liability insurance to cover any claim in respect of injury, damage, loss, or third-party claim, in the event of misuse relating to the charging cable. This may be covered by vehicle or home insurance policies.
- Liability: The Licence can also transfer risk to the resident, indemnifying the local authority against any public liability arising from the use of the solution.
- Licence Fee: A licence fee can be used to cover the local authority administration, maintenance and management costs. This can be a one-off fee as part of the initial application, or it can be repeated with licence renewal (e.g. annually).
- Proper use and care: The licence can outline licensee responsibilities for correct use and upkeep of the crossfootway solution to ensure it remains safe and functional. Local authority guidelines include some or all the following:
  - Procedure for correct use of the cross-footway solution and specifications for cables and other charging equipment required.
  - Does not guarantee a parking space or transfer ownership of the public highway.
  - Requirement to park immediately adjacent to the solution and at least 2.5m away from electrical street furniture or other EVs charging using a cross-footway solution.

- Requirement to remove the cable when not in use to avoid trip hazards.
- Requirement for regular inspections to identify obstructions or wear-andtear. The charging cable should also be regularly checked for damage or electrical faults.
- Requirement for regular cleaning of the solution to avoid debris or dirt build up.
- Requirement to contact the local authority within a set timeframe in the event of damage. Damaged equipment should not be used until repaired and signed off.
- Requirement to give the local authority advance notice if moving house or no longer using equipment and terminating the licence.

#### 2.3.6 Local authority responsibilities

Local authorities will likely retain certain key responsibilities, including:

- Monitoring: Local authorities must ensure that the local charging network is accessible and inclusive. This includes ensuring that cross-footway solutions do not negatively impact pedestrians or residents, particularly those with disabilities or mobility restrictions.
   As part of this, local authorities often engage the public and manage concerns or complaints.
- Approvals: Local authorities generally retain control of approving resident applications and planning permission. This includes assessing and signing off all locations to ensure that all installations comply with regulations and safety standards.
- Internal responsibilities: Local authorities should consider internal ownership structure and where responsibilities for managing cross-

- footway solutions sit. Effective management can require staff from across the organisation, as well as specific skills and knowledge to ensure that installations meet all regulations and standards (e.g. legal, electrical, planning, highways, as well as local transport and infrastructure expertise).
- Maintenance: Local authorities are generally responsible for ensuring the public highway remains safe and operational. This includes tracking installations, planning routine inspections, and ensuring that electrical safety checks are regularly carried out, as well as carrying out necessary repairs, removals, replacements, and ownership transfers as needed.
- Policy: Developing and implementing policies that govern the installation and use of cross-footway charging solutions, while also ensuring alignment with local transport strategy and public charging provision.

## 3. Case Studies

#### 3.1 London Borough of Enfield

In 2024, Enfield Council started a cross-footway EV trial with Kerbo Charge. The aim of the trial was to develop the installation process, test the Kerbo Charge channel, and work out the licence terms and conditions. The trial was successful, and Enfield has expanded the availability of cross-footway solutions to residents throughout the borough. More information is available on Enfield's website.

#### 3.1.1. Eligibility

To be eligible for a channel, the applicant must meet certain criteria:

- Applications from flats or maisonettes will not be approved.
- Residents will only be able to charge their EV at the roadside when able to park it close enough to the footway channel for the charger cable to reach. It does not give the resident a right to the roadside space adjacent to the footway channel.
- The resident must have all necessary permissions prior to making an application.
- The resident cannot have a channel if they have a vehicle crossover (dropped kerb).
- Channel will not be installed across a grass verge or shrub bed.
- Channel will not be installed across a two or fourwheeled footway parking area.
- Channel will not be installed within 2.5m of an electrical installation on the footway.

#### 3.1.2 Application and fees

The council assesses resident applications along with conducting an on-site inspection of the property. To apply, residents must pay a non-refundable application fee, unless the resident is a Blue Badge holder (all other costs still apply and must be paid in full).

If approved, the council will send a quote for the provision and installation of the channel, as well as the first year's licence fee. The licence enables the legal placement of a cable across the highway pursuant to a Section 178 of the Highways Act 1980. However, applicants without off-street parking also need planning permission to install a chargepoint on their property, which must be done prior to the application. A renewal fee will be due on the anniversary of the licence issue date each year.

Туре	Fees (as of May 2025)
Application fee	£119
Year 1 licence fee and construction costs	£1,377
Year 2 licence fee	£103

#### 3.1.3. Terms and conditions

When applying, the resident must agree to the licence terms and conditions, which outline the following responsibilities:

• It will be the resident's responsibility as the licensee to ensure that the cable is laid completely flat within the footway channel whilst it is being used. Except when the charger cable is being inserted or removed, the lid of the footway channel must be always laid flat to prevent potential trip hazards on the footway.

- Whilst maintenance of the footway will be the responsibility of the council, under the terms of the licence, the Licensee will be responsible for the routine maintenance of the footway channel to ensure its safe working condition.
- Any damage to the footway channel must be reported.
- The Licensee will have to indemnify the council against any claim for injury, damage, loss or thirdparty claim in respect of the on-going use of the footway channel (this is usually covered as part of the insurance for an EV).
- The resident must ensure that at least one of the following electrical safety measures are installed at the property:
  - A modern PME (Protective Multiple Earth)
     compatible EV charger with an 'O-PEN' protection
     device. The council will need to see an electrical
     safety certificate, provided by the charger
     installer. The Licensee will also need to carry out
     periodic electrical safety inspections on the EV
     charger equipment to comply with BS 7671.
  - An 'earth rod' within the property boundaries.

    This is because many UK properties have a

    PME system which do not necessarily provide
    adequate protection when a charging cable is
    run from a home into the public domain where
    earth voltages may differ. The council will need
    to see a letter or email from an electrician to
    confirm the installation.

#### 3.1.4. Installation

The channels are installed by Enfield Council's highway contractors, who have been trained by and under the supervision of Kerbo Charge. Installation uses conventional equipment and requires a team of two workers, taking around 30 minutes to an hour to install.

To install the channel, cutting machinery is used to take out a small section of footway. This must be deep enough to ensure that the channel fits flush with the footway surface. There must also be a gap at each end of the channel to ensure that the charging cable can be slotted in. Consideration must also be made around the camber of the channel to ensure effective drainage or rainwater. After roughly 10-15 minutes, the channel is ready for use.

Once installed, the footway channel will always remain the property of Enfield Council and will form an integral part of the adopted highway whilst it is in place.

#### 3.1.5 Benefits

The main benefits found by Enfield Council so far include:

- The council will also be able to generate income from the licence fees, covering costs and resource requirements for managing channel installations.
- The resident will benefit from being able to charge their EV using their residential energy tariff and specialist EV energy tariffs, which are around 5 to 10 times cheaper than using public chargepoints at around 7p/kWh or around £5-10 for a full charge.
- The aim is that these channels will also facilitate the transition to electric vehicles by allowing residents with off-street parking and those in lowerincome areas to access cheaper charging.
- Overall, this technology could have an impact on reducing air pollution and supporting Enfield Council with its aim to be a carbon neutral borough by 2040.

#### 3.2. London Borough of Bromley

After a successful trial of the Gul-e solution, London Borough of Bromley now offers cross-footway charging across the borough.

#### 3.1.1. Eligibility

Bromley helpfully provides prospective applicants with considerations to help determine suitability for a gully outside their home. This covers:

- Is the footway outside the property owned by the council?
- Is the footway and kerb edge suitable for the channel to sit flush with the surface?
- Can you regularly park on the road outside the property?
- Are there any lamp columns or other electrical equipment within 2 meters of the site?

- Are there trees or other items of street furniture outside the property that may affect works?
- Are there grass verges or any other surface other than pavement between the property and the road?
- Is there an accessible route from the property and proposed charger location the parked vehicle?

#### 3.2.2 Application and fees

Residents are required to submit an application for a channel on Bromley Council's website, along with a non-refundable application fee of £100. Once the application is submitted, studies and surveys will be undertaken by the council to determine if an installation is possible. If so, a payment of £999 will be made by the applicant and installations will be arranged. The total cost for the resident would be £1,099.

You can view Bromley's home charging offer for residents on the council website.



#### 3.3. Other Local Authority Case Studies

Trials of cross-footway solutions are taking place up and down the country. Although these examples aren't London or city-focused in some cases, they might still be helpful when considering liability, maintenance and general operations.

#### 3.3.1 Coventry City Council

- Why: Coventry trialled cross-footway channels for one year to examine the feasibility and inform future policy. The council also aims to develop a comprehensive network of on-street chargepoints available to residents, with cross-footway solutions integrating into this network.
- **Supplier:** Two trials were initiated with both Kerbo Charge and Charge Gully.
- **Quantity:** Four channels were installed by Kerbo Charge, and three with Charge Gully.
- Installation: Took place in November 2024.
- Resident Fees: £350.
- Application: The current process involves Highways evaluation to assess the impact on surrounding infrastructure, such as footway conditions and service viability to understand if installation could be offered as a permanent solution for residents.

- Residents participating in the trial currently have to sign a Section 50 agreement but this might be adapted in the future, so the council owns the materials and offers installation as a service. Under the S50 agreement, the participants are asked to make sure that a valid planning permission is in place by end of the trial period (November 2025).
- Interesting considerations: Coventry are collecting feedback every quarter throughout the trial, with regular participant surveys on the ease of use and access to charge. In addition, the council engages with neighbours to understand the wider community impact of channels, as well as the use of charge sharing through systems like the Kerbo Charge app.
- Result: While the trials are still ongoing, if successful, the department will propose policies to scale the service city wide, subject to council approval.

#### 3.3.2 West Berkshire Council

- Why: West Berkshire undertook a cross-footway trial after engagement with residents who wanted cheaper electricity rates and were trailing cables across the footway, which is not permitted on the West Berks network.
- Supplier: Kerbo Charge
- Quantity: Three trials in the pilot
- Installation: October 2023
- Resident Fees: £999 in total (including £190 for the council to review Section 178 agreement).
- Application: Residents were required to sign an S178 agreement which indemnifies the councils of

- any damage or injury. The channels also come with a 10-year warranty.
- Interesting considerations: When a resident with a channel moves property, the Section 178 agreement would give new residents three months' notice to see if they're interested in the already installed channel. If they don't want it, the council has the option to remove it but aren't sure if they would.
- Result: Following a successful trial, West Berks now offers residents the ability to request a crossfootway channel outside of their home: Off-street electric vehicle charging for residents - West Berkshire Council

#### 3.3.3 Central Bedfordshire Council

- Why: Central Bedfordshire started to look into crossfootway channels around three years ago and have since finished trials for two providers in May 2024.
- Supplier: Trial 1: Gul-e and Trial 2: Kerbo Charge
- Quantity: Trial 1: 20 installed by ODS, and Trial 2: 20 channels installed by Central Bedfordshire's highways contractor
- **Installation:** Trial 1: Summer 2022, and Trial 2: Early 2024
- Application: If the pavement is a public highway, residents must apply via the council to obtain the relevant approval, paying a non-refundable application fee/deposit. If approved, residents will pay the remaining balance to get an installation date for the use of the channel and installation. Residents can apply for the cross-footway grant with proof that the channel will be installed, where they meet eligibility criteria.
- Maintenance and liability: The Highways Team conducts an annual condition check of assets on the highway as part of routine maintenance checks

- of the street. A user agreement was developed. The council is liable for the public highway, supplier warranty covers the equipment, and residents are recommended to have suitable home insurance to cover public liability for the cable and use of the channel to charge.
- Interesting considerations: By doing two trials with different suppliers, the council could compare features. They found that the costs of the different solutions were similar, but they offered very different products with various pros and cons. Residents moving, parking disputes and accessibility were three key challenge areas identified by Central Bedfordshire throughout the trials.
- Result: Central Bedfordshire finished trials in 2024
   and are working on launching an extended trial of
   the Kerbo Charge channel. This will allow eligible
   residents to pay for the purchase and installation of
   the channel through a dedicated council application
   process, allowing the ordering process to be tested
   and refined by the council.

## 4. Conclusion

Cross-footway solutions offer a pathway to support home EV charging in areas without off-street parking. As outlined in this report, there are benefits to cross-footway charging, but critically, there remain several challenges for local authorities in implementing these solutions in a way that minimises potential risks to the authority, residents, and the public.

Local authorities are responsible for assessing and defining acceptable levels of local risk and costs associated with the implementation of cross-footway solutions. This includes developing and applying appropriate mitigation strategies to minimise potential risks, as well as considering how cross-footway charging aligns with existing EV strategies and wider transport and climate objectives. Yet, to support local authority decision-making and facilitate wider adoption of cross-footway EV charging, the following policy areas require action.

- Lack of Technical Standards: The absence of detailed national standards for the design, installation, and maintenance of cross-footway solutions hinders local authorities from developing consistent and informed policies. In particular, further guidance is needed on managing key issues such as accessibility, electrical and earthing risks, planning requirements, and the impact on streetscape and highway infrastructure.
- Legal and Liability Concerns: There is currently no national framework guiding how local authorities should permit and regulate cross-footway charging solutions. This creates uncertainty around the safe and legal basis for installation, as well

- as ambiguity over licensing procedures, insurance requirements, and liability responsibilities.
- Local Authority Resources: Many London Boroughs face significant limitations in capacity, funding, and technical expertise, which is required to establish and manage processes for cross-footway charging. This includes processes for approving, installing, enforcing, and maintaining these solutions. Without adequate resources and support, boroughs may struggle to ensure long-term safety, compliance, and operational viability of cross-footway charging infrastructure.

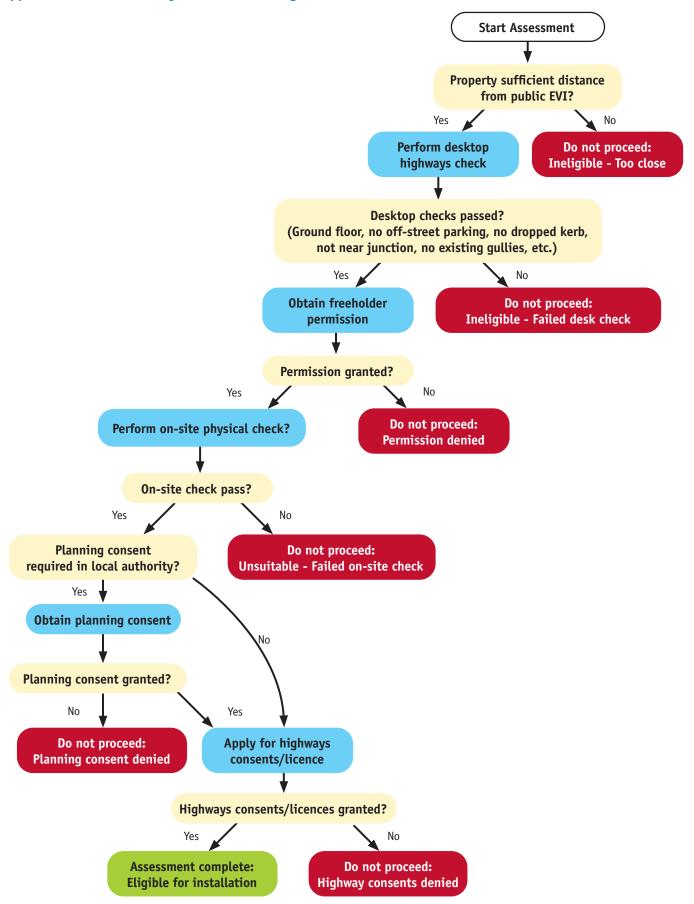
#### **Next Steps**

To address these challenges, government and industry bodies should:

- Develop national technical standards and further guidance for local authorities.
- Provide funding for local authorities to enable effective roll out of cross-footway charging.
- Share best practices and learnings from examples of successful implementation.
- Monitor and evaluate impacts on accessibility, safety, and public EV infrastructure.

## **Appendices**

**Appendix 1: Cross-Footway Solution Planning Process.** 



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**Appendix 2: Comparison of approaches to Cross-Footway Solution Ownership** 

<b>O</b> wner	Responsibilities
Local Authority	<ul> <li>Local authority controls procurement, installation, maintenance directly.</li> <li>+ This can ensure a consistent and standardised approach.</li> <li>+ Maintenance/repairs can also be integrated into existing management of the wider public highway.</li> <li>- May require upfront local authority investment, plus additional planning and resource allocation for ongoing management.</li> </ul>
Private Individual / Company	The resident is responsible for sourcing their chosen solution, arranging installation with the supplier, as well as ongoing maintenance/repairs.  + Can be more flexible and cost-effective for the resident  - Local authorities should consider how this approach influences maintenance, safety, and liability risks on the public highway.
Supplier	<ul> <li>Some suppliers offer end-to-end management, including directly handling resident applications, installation, and ongoing maintenance.</li> <li>+ Can result in more efficient handling of the various processes due to supplier expertise and experience of the technology.</li> <li>+ Reduces local authority costs and responsibilities.</li> <li>- Local authorities should consider the level of control over how the infrastructure is managed, as well as potential negative impacts from any issues with the supplier (e.g. financial instability, poor service, high costs).</li> </ul>
Community Group	Rather than being owned by one resident, a community group could jointly own the cross-pavement solution with shared use of EV charging via a charge sharing app.  For example, on private or council owned land. Although, there are no known examples of this at the time of writing.  + Could allow for the community to share costs and allow multiple users to access EV charging.  - Strong community organisation and cooperation are required to effectively share and maintain the equipment.

#### Appendix 3: Example Letter for Residents on Planning Permission.

Example letter below was taken from an example created by West Berkshire Council in collaboration with Kerbo Charge:

#### **Electrical Outlet for Recharging Electric Vehicles for On-Street Parking**

This letter relates to your application for a cross-footway electric vehicle charging channel. The channel enables you to safely recharge whilst your car is parked at home on the kerbside of the public highway. Our website sets out that planning permitted development rights do not cover electric vehicle charging points where the vehicle will be charging on the public highway and that a planning application is therefore likely to be required.

As Local Planning Authority we recommend that you make a planning application for an electric vehicle charging point if you do not have off-street parking. However, the council encourages residents making the switch to electric vehicles to improve air quality and public health.

To support this the Local Planning Authority will not regard it as expedient to take enforcement action should you not have planning permission for an electric vehicle charging point for kerbside recharging of your vehicle, as long as the following criteria are all met. Please note should you not be able to meet all of the below criteria the Local Planning Authority may regard it as expedient to take enforcement action against you.

Furthermore, the Local Planning Authority's advice applies to current legislation; should there be a future change in policy this may need to be reviewed. In those circumstances the Local Highway Authority would be in contact through the S178 licence to advise you of the changes and would include advice from the Local Planning Authority regarding the change in policy.

The following are all of the criteria to be met for an electric vehicle charging point for kerbside recharging of your vehicle:

- 1) The property has been granted a S178 licence by the Local Highway Authority to use an approved cross-footway charging solution for the safe carriage of an electric vehicle charging cable across the pavement.
- 2) The electrical outlet must not be used until the approved cross-footway charging solution has been installed. The cross-footway solution must not be a temporary solution, such as cable covers or mats which can be placed on top of a cable.
- 3) The electrical outlet and its casing does not overhang the highway or pavement by more than 100mm (including any cable plug when plugged into the unit).
- 4) That the criteria of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) are otherwise met. These are:
  - a) For an electrical outlet mounted on a wall for recharging electric vehicles (Schedule 2, Part 2, Class D). The outlet and its casing:
    - i) Do not exceed 0.2 cubic metres;

- ii) Are not within a site designated as a scheduled monument; or
- iii) Are not within the curtilage of a listed building.
- b) For an upstand with an electrical outlet mounted on it for recharging electric vehicles (Schedule 2, Part 2, Class E). The upstand and outlet:
  - i) Do not, within the curtilage of a house or a block of flats, exceed 1.6 metres in height from the level of the surface used for installing the upstand;
  - ii) Or in any other case (not within the curtilage) do not exceed 2.3m in height from the level of the surface used for installing the upstand;
  - iii) Are not within a site designated as a scheduled monument;
  - iv) Are not within the curtilage of a listed building
  - v) Do not result in more than 1 upstand being provided for each parking space.
- 5) That the electric vehicle charger does not have a power output greater than 11kW.
- 6) That when the charge cable is in use to recharge an electric vehicle it is housed in the approved cross-footway channel.
- 7) That when the electric vehicle charge cable is not in use it is not left or stored on the pavement or public highway.

#### **Appendix 4: User Agreement Templates**

See below for examples of cross-footway charging user agreements from councils with active rollouts to all residents:

#### **Bromley Borough Council**

https://www.bromley.gov.uk/roads-highways-pavements/electric-hybrid-vehicles/2

#### **Cornwall County Council**

https://www.cornwall.gov.uk/transport-parking-and-streets/street-works/apply-to-install-anev-charging-channel/

#### **Enfield Borough Council**

https://www.enfield.gov.uk/services/roads-and-transport/footway-channel-for-electric-vehicle-charging-on-the-roadside

#### Milton Keynes City Council

https://www.milton-keynes.gov.uk/highways/highways-permits-and-licences/apply-home-ev-charging-channel

#### **Northumberland County Council**

https://beta.northumberland.gov.uk/roads-and-streets/maintaining-roads-pavements-and-bridges/street-ev-cross-pavement-application

#### West Berkshire Council

https://citizen.westberks.gov.uk/evquidance

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