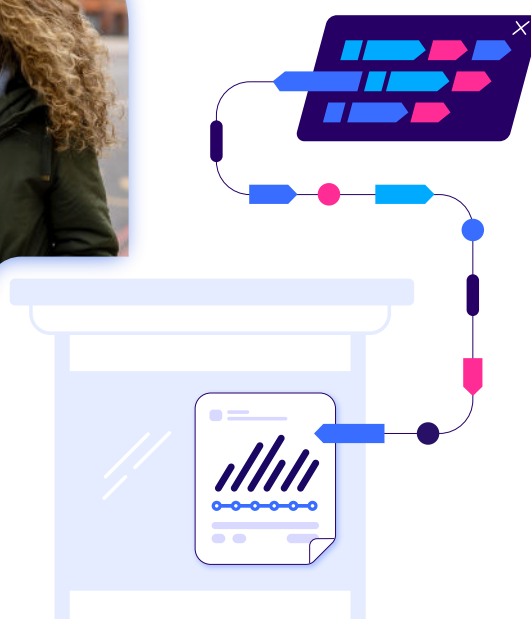


BETTER BUS STOPS



**SETTING A STANDARD
FOR PRINTED PASSENGER
INFORMATION.**

FOREWORD

We are at a pivotal moment for public transport in the UK. As we strive to rebuild and enhance our networks, the importance of clear, accessible, and reliable information cannot be overstated. Campaign for Better Transport's "*Better Bus Stops*" initiative, launched in December 2024, called for a new national standard for bus stop infrastructure and information, with passengers' needs at its heart. This follow-up report - a partnership between Campaign for Better Transport and Optibus - focuses on the requirements for customer-friendly printed service information. Its implementation would be a significant step towards ensuring that individuals have the information they need to travel with confidence.

“

Effective information is not merely a convenience; it is a fundamental right for all bus passengers. This report meticulously lays out a path to achieve this, drawing on evidence and best practices from across the UK. By standardising and enhancing information provision, we can make bus travel a more attractive and accessible option, helping to tackle congestion, reduce emissions, and improve social equity. We must ensure that every passenger, regardless of their location or background, can rely on the information provided at their bus stop.

”

Ben Plowden

Chief Executive Officer, Campaign for Better Transport

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At Optibus, we recognise the critical role of information in making public transport seamless and user-friendly. By leveraging technology and innovative approaches, we can transform the passenger experience and create a more sustainable and efficient transport system for everyone. This report's insights and recommendations align perfectly with our vision of a data-driven, passenger-centric future for public transport. We are proud to support this initiative and look forward to seeing its implementation across the UK.

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Amos Haggiag

Chief executive officer and Co-founder, Optibus



INTRODUCTION

The public transport landscape is undergoing significant transformation, with a renewed focus on improving passenger experience and enabling more people to travel more sustainably. Central to the bus passenger's journey is the bus stop – the first and last point of physical interaction with the service.

The first *Better Bus Stops* report highlighted that the quality, accuracy, and accessibility of information provided at bus stops are paramount in shaping perceptions, building confidence, and enabling seamless travel. However, the provision of passenger information across the UK is currently patchy. In some areas information is provided by operators, in others it is the local authority. Generally, both printed information and screens displaying live bus arrival times are more common at stops in an urban area than at rural stops.

This follow-up report aims to address these disparities by proposing a clear, actionable framework for a new national standard, focusing on printed passenger information. It acknowledges the operational realities faced by local authorities and operators, drawing directly from their experiences. By incorporating detailed recommendations for different types of bus stops and learning from specific case studies, this report seeks to provide a roadmap towards a future where every bus stop in the UK offers a baseline of high-quality, reliable, and user-friendly information, ultimately contributing to a more attractive and accessible public transport network for all.

The report draws on a stakeholder survey promoted by the Bus Centre of Excellence and a stakeholder roundtable. This was attended by 10 local authorities from the length and breadth of England, representing every tier of local government from Sub-national Transport Bodies to Urban Unitary Authorities and large rural County Councils.

As existing regulations do for train stations and on board buses, a national standard, underpinned by long-term funding allocations, would deliver more consistent passenger information - ensuring people are familiar with services available and the timetable displayed at a bus stop regardless of whether they're travelling in Camborne or Carlisle, Canterbury or Corbridge.

THE CURRENT PROCESS FOR DELIVERING PASSENGER INFORMATION

Timeline for Registering a New Bus Service

The current process for delivering passenger information at bus stops appears lengthy. Yet the 42-day period from service registration to operating the route can be too short, if several routes require the information to be updated.

PHASE 1:

-70

Pre-Application & local authority notification

Controlled by the operator and the Local Authority

- **At least 70 days before service start (England & Scotland)**

Action: The Operator prepares the full application package. This includes completing the PSV350 form, creating the route map, and finalising the timetable.

Action: The Operator sends the complete proposed application and all supporting documents to every relevant Local Authority (e.g., County Council, Unitary Authority, SPT in Scotland) through whose area the service will run.

Purpose: This begins a mandatory 28-day consideration period for the Local Authorities. They will review the proposal for things like route suitability, impact on local traffic, and coordination with other services.

PHASE 2:

-70 TO -42

Application to the traffic commissioner

Controlled by the operator & the Office of the Traffic Commissioner

- **Day -70 to day -42 (England & Scotland)**

Status: The 28-day Local Authority notification period is ongoing.

- **No later than day -42 (England & Scotland)**

Action: The Operator submits the formal application to the correct Office of the Traffic Commissioner (OTC).

Key documents:

- Route Map
- Timetable
- Confirmation that Local Authorities have been notified
- Payment for the registration fee (£60 for standard service as of early 2024)

Event: The statutory notice period officially begins on the day the OTC accepts the application as complete. Incomplete applications will be rejected, causing delays.

PHASE 3:

-56 TO -01

Statutory notice & final preparations

This phase is a mandatory waiting period

- **Between day -56 and day -1 (Wales)**
- **Between day -42 and day -1 (England & Scotland)**

Status: The application is with the Traffic Commissioner for the duration of the statutory notice period. No changes can be made without restarting the process.

Action: The Operator can use this time for final operational preparations: finalising driver rotas, preparing vehicles, marketing the new service, and printing timetables for bus stops. The service cannot legally start yet.

Action: The Traffic Commissioner processes the application. If there are no objections or issues, it will be accepted. The operator and relevant authorities will be formally notified of the registration and the confirmed start date.

PHASE 4:

DAY 0

Service commencement

- **Day 0: service start date**

Event: Having received formal confirmation from the Traffic Commissioner, the Operator can now legally begin running the new bus service as registered.

Requirement: The service must run exactly as detailed in the registered particulars (route, timetable, stopping places).

During this 42 day window, it is often (but not always - see Case Study 2 page 13) the local authority's sole responsibility to update passenger information.

The problem with this approach is that it condenses all the activity required to deliver information to the passenger into a tight window of 42 days. With the possibility of having to register hundreds of services within this window, this can lead to a significant resource bottleneck for local authorities and bus operators. This is fine if there are only a handful of routes to register, however, where there are wholesale network changes because of changing commercials this can have wider impacts.

Depending on the systems available at a local authority, this can mean lots of manual data processing, proofing, validations, and significant staff time. Bus Service Improvement Plans and Enhanced Partnerships might be improving this by limiting service changes to specific time periods during the calendar year. However, this can also lead to a concentration of activity that exacerbates the lack of resources available at local authorities who have experienced over a decade of stagnated funding and staffing cuts.

RESOURCE AND ADMINISTRATIVE BURDEN

Insufficient review time:

The statutory 28-day notification period is often perceived as too short for a thorough assessment, especially for complex routes that cross multiple districts or have significant traffic implications. Local Authority officers have to juggle these registrations alongside their many other duties.

Poor quality submissions:

LAs often receive incomplete or inaccurate applications from operators. This can include poorly drawn maps, ambiguous timetables, or a failure to identify all potential operational issues. This creates a time-consuming back-and-forth process to get the necessary information.

The burden of disseminating information:

Once a service is registered, the LA is responsible for updating all its public-facing information. This is a significant logistical task that includes:

- Updating online journey planners.
- Updating roadside electronic information displays.
- Printing and installing new timetables at potentially dozens of bus stops.
- Updating their own websites and printed materials.

CASE STUDY 1

Essex County Council – navigating complexity & rural realities

Essex County Council manages a large and varied bus route network with approximately 6,000 bus stops. The council has a team of five looking after bus stop information, coordinating service changes with 40 bus operators. This limited capacity, combined with the county's rural nature, presents a unique set of challenges.

Scale and tools:

Essex County Council uses a software tool to administer and maintain a dataset of over 400 bus routes. This system can automatically produce information derived from the operators' registrations and generates around 6,000 timetables each year. Without this automation, managing the workload would be impossible with current resources.



Impact of enhanced partnerships:

The introduction of Enhanced Partnerships - whereby local transport authorities and bus operators work much more closely together on the delivery of a mutually agreed Bus Services Improvement Plan - has helped standardise processes across operators. This includes agreed timetable change dates (seven per year) rather than previously frequent changes leading to reactive and costly updates. This demonstrates the positive impact of collaborative frameworks.

Rural infrastructure deficit:

A particular challenge highlighted by Essex County Council is that approximately 1,500 stops "do not physically exist" – they are scheduled stopping points but with no pole, flag, or shelter. This not only confuses and disadvantages passengers requiring these stops, it also makes displaying timetable information impossible without significant investment in new infrastructure.

Challenges

Space constraints:

Standard timetables are displayed in A4 width frames, forcing selectivity in what information can be displayed.

Rising costs:

The costs of printing, vehicle fuel for installation, and the sheer volume of updates place significant financial pressures on councils.

Data and approvals:

Delays with the Traffic Commissioner approving changes, sometimes retrospectively, create uncertainty and complicate print schedules.

Word of mouth:

To access virtual stopping points, passengers need to rely on local knowledge or digital tools like Google Maps to identify these unmarked stops, and even bus drivers may be unaware of all of them. This poses a significant accessibility and information challenge.

Lessons from Essex CC

- Automation is crucial even for non-metropolitan large authorities.
- Enhanced Partnerships can bring much-needed stability to service changes.
- The cost of providing and maintaining information, especially in rural areas with infrastructure deficits, is a major barrier that national standards must acknowledge.
- A pragmatic approach to information content is necessary when faced with severe space and resource constraints.
- The "virtual stop" issue requires specific strategies, likely focusing on digital information accuracy.

GUIDING PRINCIPLES FOR PRINTED INFORMATION

The journey towards standardised and effective printed passenger information must be guided by a set of core principles. These principles are crucial for ensuring that information meets the diverse needs of all passengers.

1.

Clarity and legibility: This is the cornerstone of effective communication. Information must be presented in a way that is immediately understandable and easy to read for everyone, including those with visual impairments or reading difficulties.

- **Font choice:** The trend towards semi-condensed fonts offers a good balance between space efficiency and readability, avoiding the overly wide nature of traditional fonts like Arial or the difficulty of highly condensed fonts.
- **Font size and contrast:** Adequate font sizes and strong colour contrast between text and background are essential.
- **Layout:** Uncluttered layouts, logical information hierarchy, and consistent formatting significantly improve comprehension. Overloading displays makes information intimidating and difficult to parse.

2.

Accuracy and timeliness: There is perhaps no greater source of frustration for a bus passenger than encountering outdated or incorrect information. The reliability of the service is directly linked to the reliability of the information provided.

- **The challenge of change:** The challenge of keeping information current is immense, especially with frequent service changes, short-notice alterations by operators, and the complexities of data management across multiple stakeholders.
- **Robust update processes:** This necessitates efficient and responsive systems for updating information, from data input through to physical replacement at the stop. The "validity date" or "effective from" date on printed materials is a critical component of this.

3.

Consistency: Passengers benefit greatly from a standardised approach to the type of information provided and its presentation.

- **National vs. local identity:** While national consistency is the goal, the importance of allowing for local corporate identity (operator or authority branding) is recognised. A balance needs to be struck.
- **Predictability:** Knowing what information to expect at any given bus stop and where to find specific details (e.g., route number, destination, timetable, contact information) reduces confusion and anxiety, particularly for infrequent users or visitors. The Campaign for Better Transport *Better Bus Stops* report strongly advocates for this.

4.

Accessibility: Public transport must be accessible to all, and passenger information is a key enabler of this.

- **Complementary technology:** Printed materials must be complemented by digital technologies to ensure accessibility and inclusion. Digital tools provide real-time updates and, crucially, support passengers with visual impairments, as smartphones can verbalise information. Audio provision should also accompany printed and digital materials to ensure no passenger is excluded.
- **Beyond digital:** While digital tools like QR codes linking to Real-Time Information are increasingly valuable, they must not replace physical timetables. Paper still rules, especially for those without digital access, older passengers, or in areas with poor mobile connectivity.
- **Specific needs:** Accessibility information itself (e.g., symbols for low-floor buses, information on step-free access) should be considered essential, but is rarely included in any existing printed material. Consideration should also be given to formats that support users with learning difficulties.

5.

Space optimisation: Bus stop display cases, particularly at smaller stops, offer limited physical space.

- **Prioritisation:** This constraint demands careful prioritisation of what constitutes "essential" information for the "premium bit of frame information" and the challenge of fitting all necessary details, especially when multiple services use a single stop.
- **Design efficiency:** Clever design can help maximise the use of available space without sacrificing clarity. This includes efficient timetable layouts (e.g., matrix vs. linear) and the considered use of iconography.

6.

Durability and maintenance: The physical lifespan of printed information is a practical and economic consideration.

- **Material quality:** The use of waterproof paper, e-paper or other weather-resistant materials to reduce the need for lamination and protect against damage should be considered, thereby extending the life of the display and reducing maintenance costs.
- **Protection:** The design of the display case itself plays a role in protecting the printed information from vandalism and the elements.



BUS STOP CATEGORIES AND RECOMMENDED PRINTED INFORMATION

The first report in the *Better Bus Stops* series provides a logical and practical framework by categorising bus stops into four distinct types. This categorisation allows for a nuanced approach to standardising printed information, ensuring that the level of detail provided is appropriate to the stop's usage, location, and the likely needs of its passengers. Our recommendations for printed information are tailored to each category:

Information element	Category 1: Major bus stations & transport interchanges	Category 2: Main town/city centre stops & local interchanges	Category 3: Community hub stops	Category 4: All other stops (minimum standard)
Stop/station identification	Clear station/interchange name (prominently displayed)	Clear stop name & unique location identifier (e.g., stop code, street name)	Clear stop name & location identifier	Clear stop name/identifier (unique code or physical description)
Route information	Comprehensive route list & destination finder (master list, key intermediate points)	Route list (all routes, final destinations, key intermediate points)	Route numbers & final destinations	Route numbers & final destinations
Timetable information (printed)	Individual route timetables (at stands, detailed, all day types, matrix format preferred)	Individual route timetables (full preferred, summarised if space constrained, all day types)	Key departure times (simple, clear, all day types)	Basic: Service frequency and first/last bus times. If not feasible, QR code to full timetable is paramount.
Operator information	Clear operator ID (names & recognizable logos)	Operator name(s)	Operator name(s)	Operator name(s)
Contact details (enquiries /complaints)	Visible, consistent, easily accessible point (e.g., info office, helpline)	Yes	Yes	Yes (e.g., central phone number or website)
Local area map	Detailed wayfinding map (station & vicinity, facilities, connections, landmarks, accessible routes)	Simplified local area map (immediate surroundings, nearby amenities, other stops)	Not specified as essential printed item	Not specified as essential printed item

Information element	Category 1: Major bus stations & transport interchanges	Category 2: Main town/city centre stops & local interchanges	Category 3: Community hub stops	Category 4: All other stops (minimum standard)
Real-Time info (RTI) signage	Clear signage to digital RTI screens	Clear signage to digital RTI screens	(QR code is primary for RTI access)	(QR code is primary for RTI access)
QR code for RTI & full timetables	Station-wide/zone QR to web-based live departures (complementary to screens)	Crucial: QR to live departures and downloadable /detailed online timetables	Valuable: QR to live departures (if avail.) & detailed online info	Paramount/critical: QR to live departures (if avail.), full timetables, & operator/authority website
Ticketing information	Comprehensive (ticket types, payment methods, major fare promotions)	Key fare information (flat fares, widely applicable offers)	Not specified as essential printed item	Not specified as essential printed item
Accessibility information	Clear symbols & text (accessible services, step-free routes, facilities, induction loops)	Symbols for low-floor buses if applicable, or general accessibility statement	Brief accessibility note (e.g., "Routes X & Y normally low-floor")	Not specified as essential printed item (QR can link to this)
"Towards" info / stand allocators	Very clear at individual stands (general direction, corridor, major destinations)	Clear "towards [direction/major destination]" if stop serves multiple directions	Not specified as essential printed item	Not specified as essential printed item
Validity date	Prominently displayed ("effective from" date)	Yes	Yes	Yes

CASE STUDY 2

West Midlands Combined Authority demonstrates a mature and comprehensive approach to managing passenger information across a large urban conurbation with approximately 11,000 bus stops.

West Midlands Combined Authority (WMCA) – A proactive, large-scale approach

System & automation:

WMCA uses bespoke software, the Information at Bus Stops System (IBSS), linked with InDesign for artwork generation. This system allows for a high degree of automation. A key feature is its ability to assess whether a service change materially affects the information displayed on a poster (e.g., if a time changes by a few minutes but remains within the same frequency band, a new poster might not be needed), thus optimising resources. This addresses a common challenge of managing minor variations.



**West Midlands
Combined Authority**

Coverage and content:

WMCA aims for stop specific information for every stop, including multi-operator details on a single timetable. This aligns with best practice for passenger clarity. They also provide bus stop flags with service numbers and “towards” information.

Volume and frequency:

The scale is significant, with WMCA handling around 27,000 timetable updates in 2024, managing approximately eight main change dates annually. This necessitates the robust automation their system provides.

Challenges:

The IBSS software is very old, leading to a lack of resilience as a result of a lack of capacity and knowledge gaps within the ICT support function for ongoing maintenance. This highlights the risk associated with bespoke, legacy systems and the need for succession planning and ongoing investment in technology. Aligning change dates with neighbouring authorities for cross-border services also presents a coordination challenge.

Funding model:

WMCA uses provisions under the Transport Act 2000 to charge bus operators for providing timetables for commercial services operated in the area. This gives WMCA a degree of control and encourages operator cooperation regarding change dates and data provision.

Lessons from WMCA

- Automation is key to managing large-scale, frequent updates efficiently.
- Bespoke systems can be powerful but require ongoing support and risk mitigation for obsolescence.
- A strong funding and governance model can facilitate better control and operator buy-in.



CROSS-CUTTING RECOMMENDATIONS

Beyond the specific information elements for each bus stop category, the roundtable and survey data highlighted several overarching themes that require strategic attention to successfully implement and maintain national standards for printed passenger information.



DESIGN PROCESSES & SOFTWARE: The current landscape shows varying degrees of automation. Challenges include frequent changes, space limitations, the deregulated market, and software limitations, all exacerbated by high update volumes.

Recommendation: Shift to greater automation by investing in modern software that ingests data (e.g., TransXChange), automates artwork generation based on national standards, and integrates with other systems. Central procurement or dedicated funding could aid adoption.



RESOURCES & CAPACITY: Significant differences exist in allocated resources and capacity constraints are common, especially during peak change periods. Previous in-house capabilities have been lost due to budget cuts in some areas.

Recommendation: Address the resource gap through realistic costing, dedicated funding streams, capacity building, and exploring shared service models or regional collaboration.



KEY COSTS: Staff costs (design, proofing, admin), printing & materials, installation & maintenance (including rising fuel costs), and infrastructure (initial costs) are major cost factors.

Recommendation: Improve efficiency through automation, promote durable/recyclable materials, standardise infrastructure, and optimise installation/maintenance schedules.



OPERATOR COLLABORATION & DATA QUALITY:

Timely, high-quality data from operators is crucial, but challenges exist in receiving confirmed data, unregulated changes, confusing route numbering, and BODS accuracy.

Recommendation: Strengthen Enhanced Partnerships with enforceable Service Level Agreements (SLAs) for data provision (format, timelines, quality). Implement data validation processes and a national/regional system for unique route numbering. Continue improving Bus Open Data Service (BODS).



INNOVATIVE DESIGN APPROACHES & SOFTWARE:

There is growing interest in new technologies like e-paper displays, dynamic QR codes, improved automation software, and other accessibility information.

Recommendation: Foster innovation through pilot schemes, R&D funding, and knowledge sharing. Establish a central resource for best practices and supplier information. Ensure user-centric design for all new approaches.



WHAT WORKS WELL (LEARNING FROM SUCCESS):

Positive feedback highlights clear layouts, stop-specific/multi-operator timetables, large print, QR codes for real-time info, in-house printing control, and useful timetable matrices.

Recommendation: Incorporate these successful elements into future national standards. The ability to maintain process control for timely responses is a key advantage.

CONCLUSION AND NEXT STEPS

The standardisation of printed passenger information at bus stops represents a pivotal opportunity to significantly enhance the public transport experience across the UK. The insights gathered from the stakeholder roundtable, the comprehensive survey data, and the foundational work of Campaign for Better Transport collectively underscore a clear need and a strong desire for improvement. Adopting a tiered approach, based on distinct bus stop categories, allows for a standard that is both ambitious in its goals and pragmatic in its application.

While the challenges are undeniable – encompassing resource limitations, the complexities of data management in a dynamic operational environment, the rising costs of materials and labour, and the need for effective multi-stakeholder collaboration – they are not insurmountable.

A future where passengers can confidently approach any bus stop in the nation, expecting to find clear, accurate, consistent, and accessible information, is achievable. This will require a concerted and collaborative effort.

NEXT STEPS AND RECOMMENDATIONS:

1 **Developing detailed national guidelines and style guides:**

- Translate the recommendations in this report into a comprehensive, practical national standard. This should include detailed specifications for information content per stop category, layout templates, font guidelines, iconography, and advice on materials.
- Develop a visual style guide that promotes consistency while allowing for necessary local branding elements.

2 **Addressing resource gaps and funding:**

- Local Authorities should carry out audits of existing provision against the proposed standards and share these nationally, helping to clarify the scale of the task.
- Identify and secure sustainable funding mechanisms and support structures to enable all local authorities, regardless of size or current capacity, to meet the new standards over time. This may involve specific allocations within future transport funding settlements (e.g., BSIPs or devolved funding or standardising operator contributions to passenger information via updated legislation).

3 Improving data infrastructure and collaboration:

- Work with operators and software providers to streamline data flows, improve the quality and timeliness of data (particularly TransXChange and BODS), and establish clear protocols for service change notifications.
- Champion the development and adoption of a national or regional system for unique route numbering to eliminate passenger confusion.

4 Promoting innovation, training, and best practice sharing:

- Establish ongoing events (e.g., workshops, webinars, online forums facilitated by bodies like the Bus Centre of Excellence) for sharing best practices, innovative solutions, and lessons learned among local authorities and operators.
- Develop training modules and resources for staff involved in the design, production, and maintenance of passenger information.
- Support pilot projects for new technologies (e.g., e-paper, advanced QR code applications) and evaluate their effectiveness and scalability.

5 Phased implementation and monitoring:

- Develop a realistic, phased implementation plan for the national standards, potentially prioritizing certain stop categories or geographical areas based on need and impact.
- Establish a framework for monitoring compliance with the standards and measuring their impact on passenger satisfaction and bus usage.



By prioritising the fundamental need for clear, accurate, consistent, and accessible printed information at every bus stop – thoughtfully complemented by appropriate digital tools – the UK can create local bus networks that are not only more efficient but also genuinely welcoming, intuitive, and easy to use for everyone. This commitment is an essential step towards making public transport better for everyone.



ABOUT CAMPAIGN FOR BETTER TRANSPORT

Campaign for Better Transport is the national charity working across England and Wales to make transport better, greener and fairer. We have been campaigning since 1973 to improve transport, tackle climate change and create a more inclusive society. Our vision is for all communities to have access to high quality, sustainable transport that meets their needs, improves quality of life and helps protect the environment.



ABOUT



Optibus is a unified software platform for public transportation planning, scheduling, rostering, operations, real-time control, and passenger information, powered by artificial intelligence (AI) and optimization algorithms. In thousands of cities worldwide, transportation agencies and operators use Optibus to maximize the positive impact of public transportation on passengers and the planet, improve operational efficiency and service quality, promote transportation equity, reduce emissions and costs, and modernize operations.

Learn more: www.optibus.com | info@optibus.com