

Department for Science, Innovation and Technology: Evaluation of flexi-permit trials

Phase 2: Trial Summary and Evaluation Final Report

January 2026

Executive summary

Introduction and background

In October 2023, the Department for Science, Innovation and Technology (DSIT) commissioned RSM UK Consulting LLP, Open Road Associates (ORA), and Professor John Parkin to design, implement and evaluate a trial of flexi-permits in England.

Some street works, such as telecom fibre upgrades, require multiple permits for single programme of works across multiple streets. Many of these programmes support national initiatives, including Project Gigabit, which aims to provide gigabit-capable connectivity to 99% of UK premises by 2032. The flexi-permit trial tested whether consolidating multiple permits under a “flexi-permit” could reduce administrative burden and improve delivery efficiency.

While DSIT’s initial interest in flexi-permits focused on telecoms and broadband rollout, the trial was designed to assess potential benefits across all sectors, to understand both advantages and impacts of flexi-permits for street works as a whole. This trial follows on from a number of industry-led trials previously undertaken. Participants in those previous trials have been invited to share their experiences as part of this research. The trial and an underpinning evaluation framework were developed in Phase 1 of the two-phase project, concluding with a final report, dated October 2024. Phase 2 involved trial recruitment, delivery and evaluation. The trial was delivered over the period February to July 2025.

Two local highway authorities (LHAs), Durham and Lincolnshire, and three promoters (including a telecoms operator) participated. In total, 18 flexi-permit programmes were delivered, spanning an overall total of 327 flexi-permit days (an average of 18.2 days per flexi-permit). The evaluation sought to determine whether the flexi-permit model offers tangible administrative or operational efficiencies compared to the current permit system, for whom these benefits arise, and under what conditions they are most achievable.

Methodology and limitations

The evaluation used a theory-based design structured around a Theory of Change (ToC) and tested through a Contribution Analysis (CA) framework. These methods were used to test the theory that a flexi-permit system could improve the coordination of street works and the efficiency of resource use, without causing increased disruption for road users. This approach allowed quantitative and qualitative evidence to be synthesised to understand how, and to what extent, the flexi-permit model contributed to observed outcomes. Data sources included:

- works data from participating LHAs and promoters’ Street Manager records.
- administrative data collected by LHAs and promoters during the trial, including programme-level records and progress updates.
- semi-structured interviews with participants and wider stakeholders (36 stakeholders).
- post-analysis focus groups with five LHAs.
- journey-time data collected via the Google Maps Platform live-traffic layer and the Distance Matrix Application Programming Interface (API) for trial sites to assess congestion impacts.

Several **significant caveats** apply to the interpretation of findings:

- **limited sample size:** the evaluation covered only two LHAs, three promoters and 18 flexi-permits. This restricts the ability to generalise findings nationally.

- **legislative and system boundaries:** no legislative or digital system changes were permitted for the trial. Participants were required to operate flexi-permits in parallel with individual permits in Street Manager, resulting in some duplicated effort. As a result, this hybrid approach limited the ability to fully assess the impacts of a true flexi-permit system in relation to resourcing, administration, platform functionality, fee structures and reinstatement tracking.
- **selection bias:** participation was voluntary and may have favoured “easier” or well-managed works, limiting representativeness.
- **seasonal bias:** the 24-week trial period did not capture winter operational conditions, embargo periods or seasonal demand. These factors can impose variation in levels of disruption, administrative complexity and resourcing requirements, thereby testing the robustness of a flexi-permit system in ways the trial could not.
- **scope exclusions:** Major, emergency, Temporary Traffic Regulation Orders (TTRO), and lane-rental works were excluded. Findings should therefore not be extrapolated to these categories.

Key findings

- Implementation and delivery:
 - four of the five participants had a positive view of the trial, with increased confidence in the flexi-permit model.
 - the flexi-permit model was successfully implemented across both LHAs with high fidelity to trial parameters.
 - one promoter faced operational challenges, highlighting the need for better subcontractor oversight and process management.
 - participation was influenced primarily by the level of promoter engagement and internal capacity.
 - flexi-permits were also considered by participating LHAs as being beneficial for works that cause minimal traffic disruption, are short in duration, and avoid major excavation of the carriageway or footway, for example, minor surface repairs or the installation of small street infrastructure. They were seen as especially suitable for high-volume programmes of this nature, involving many individual works across an area, such as broadband or EV charge-point rollouts. Flexi-permits were not considered suitable for disruptive works.
 - early and constructive pre-application engagement between LHAs and promoters was critical for enabling detailed delivery planning, improved oversight and effective co-ordination.
- Administrative effort and efficiency:
 - while flexi-permits required greater upfront effort to plan, review and submit participants reported this was offset by lower administrative effort during delivery due to reduced re-permitting and fewer modification requests.
 - no material changes were observed in staffing or costs as work was absorbed into existing workflows.
 - LHAs reported that reviewing a single flexi-permit was administratively comparable to reviewing multiple individual permits but offered more holistic visibility over the network.
- Co-ordination and engagement:
 - the trial led to stronger early-stage collaboration between LHAs and promoters, fostering shared understanding and more effective scheduling.

- engagement during works remained largely unchanged, although one trial demonstrated increased frequency of updates due to the dynamic nature of the permit.
- the system was considered particularly beneficial where multiple works in close proximity were co-ordinated under one programme.
- Delivery and performance:
 - works were delivered largely on schedule with minimal overruns (0% overall) and there was some evidence of earlier completion in Lincolnshire.
 - the majority of interviewees agreed that flexi-permits led to greater efficiencies in delivery compared to regular permits, due to the agility of the system. However, permit trial data suggested that flexi-permits recorded a slightly higher end date delay (+0.04 days) compared to normal permits (-0.82 days). One promoter noted the loss of precision in sub-contractor tracking offset operational benefits and that they did not notice an increase in efficiency.
 - flexi-permits enabled operational flexibility, allowing promoters to move between sites without requesting permit amendments.
 - change requests were significantly fewer under the flexi-permit model. No flexi applications recorded Permit Modification Requests, compared with 308 requests (2% of 13,587 applications) recorded under the regular permit model.
 - no negative impacts were reported on inspection processes, safety or quality of reinstatement. On a small sample, the Category A (live-site inspections primarily used to check safety measures) failure rate was higher using flexi-permits (33%, n=2) than individual permits (19%, n=137).
- Public and network impacts:
 - works typically took place on non-traffic-sensitive roads, with minimal or no congestion impacts.
 - journey-time analysis found no statistically significant differences between flexi-permit and regular works.
 - the level of complaints received were deemed to be within a normal range i.e., four flexi-permits (27%) received complaints (ranging from 1 to 4 complaints each).
- Perceptions and sector views:
 - most trial participants viewed the flexi permit model as workable and beneficial, with potential to streamline operations for high-volume works such as broadband or electric vehicle infrastructure rollout.
 - two LHAs, who did not participate in this trial but had participated in previous industry-led trials, expressed concerns about loss of oversight and tracking limitations and reported that they did not observe meaningful improvements in delivery. However, as industry-led trials were conducted previously in at least nine LHAs overall, this feedback reflects only a small sample and may not be representative of the wider group.
 - wider stakeholders expressed mixed views: industry bodies and promoters were broadly positive, while many LHAs raised concerns about reduced oversight and co-ordination challenges. All groups emphasised that successful flexi-permit use depends on strong planning, clear boundaries, and robust digital systems.

Recommendations

The caveats associated with the findings of this trial mean that **this evaluation is not able to make a definitive recommendation either in favour of or against proceeding with flexi-permit legislation**. However, stakeholder feedback has highlighted some core fundamentals that are recommended for consideration as part of any future iteration of flexi-permits, namely:

- early engagement and collaboration between LHAs and promoters, with detailed delivery plans (with dates and co-ordination checks) remaining mandatory. Early-stage coordination is likely to support downstream management of street works more widely, and so should be considered beyond the use of flexi-permits.
- provision of a concise summary of flexi-permit parameters to promoters, to aid transparency and to support compliance.
- digital integration and streamlining of systems and processes (see technology solutions below), thereby avoiding manual workarounds (developing and updating an Excel spreadsheet and providing email updates) used within the trial.
- daily updates and standardised whereabouts reporting to support transparency.
- robust compliance controls to preserve public safety, quality assurance, and accountability.
- provision of the ability to update the status of individual streets within the overarching flexi-permit. Being able to close off Unique Street Reference Numbers (USRNs) within the flexi-permit would improve accuracy of inspection co-ordination, network management, monitoring and reporting.
- consistent metrics and monitoring protocols to track administrative savings, delivery efficiency, and network impacts over time.
- provision of a clear framework that defines and presents the parameters of a flexi-permit, to aid decision-makers within LHAs.
- provision of system induction to stakeholders to ensure compliance. This would be particularly beneficial for newer companies engaged in street works who have less experience and knowledge of the relevant street works legislation.

There are also aspects of flexi-permits that have not been tested as part of this trial which would require significant consideration if the implementation of flexi-permits was to be considered:

- **technology solutions:** Street Manager would need to be adapted to allow for flexi-permits. This would include consideration of how to provide functionality and auditing for reinstatements, inspections and offences for individual works within the broader flexi-permit. Real-time data sharing tools will need to be integrated for improved visibility, progress updates, and compliance monitoring.
- **fee charges:** if individual permits were to be replaced by a single flexi-permit, the fee associated with the permit (and the method for calculating it) would need to be designed to ensure minimal loss of revenue for LHAs.

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The matters raised in this report are only those which came to our attention during the course of our review and are not necessarily a comprehensive statement of all the weaknesses that exist or all improvements that might be made.

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Glossary

Term	Definition
TMA	Traffic Management Act (2004)
NRSWA	New Roads and Street Works Act (1991)
Permit Scheme Regulations	The Traffic Management Permit Scheme (England) Regulations 2007
Prolonged Occupation Regulations	The Street Works (Charges for Unreasonably Prolonged Occupation of the Highway (England) Regulations 2009
Miscellaneous Amendments Regulations	The Street and Road Works (Miscellaneous Amendments) (England) Regulations
Permit Scheme	Local highway authority or traffic authority permit scheme
Electronic Communications Regulations	The Street and Road Works (Amendments Relating to Electronic Communications) (England) Regulations 2020
Lane Rental Regulations	Local highway authority or traffic authority lane rental scheme
Fixed Penalty Regulations	The Street Works (Fixed Penalty) (England) Regulations 2007
Notices Regulations	The Street Works (Registers, Notices, Directions and Designations) (England) Regulations 2007
TTRO	Temporary Traffic Regulation Orders
Local Highway Authority (LHA)	An organisation that is responsible for the maintenance of public roads, as defined in the Highways Act 1980 and Traffic Management Act 2004.
Co-ordination Code of Practice	Code of practice for the co-ordination of street and road works (March 2023)
DFT	Department for Transport
DSIT	Department for Science, Innovation and Technology
Flexi-permit	A flexi-permit is defined as a single permit that will cover multiple phases across streets.
Phase (of work)	A period of continuous occupation of the street (whether or not work is taking place the whole time) between the start and completion of the related works. (Section 8.2.1 of the Co-ordination Code of Practice).
Promoter	An organisation that gets their powers to work in the public highway from different pieces of legislation.
Register	A register required to be kept by a [street] Authority under Section 53 of NRSWA.
USRN	Unique Street Reference Number
Work Programme	A work programme refers to a collection of works (multiple phases) over a given area.

Term	Definition
PAA	Provisional Advance Authorisation
Street Manager	Street Manager, a digital service in England for local highway authorities, utility companies and their contractors to create, co-ordinate, and monitor road and street works.
CRM Systems	Customer Relationship Management software.

1. Introduction

In October 2023, RSM UK Consulting LLP (RSM) and its partners Open Road Associates (ORA) and Professor John Parkin were appointed by the Department for Science, Innovation and Technology (DSIT) to manage and evaluate the running of a trial of flexi-permits in England. In October 2025, RSM sold its Strategy, Economics and Policy team to RSK Group and subcontracted completion of this evaluation to the new RSK team, which trades as Fortia Insight.

The trial and an underpinning evaluation framework were developed in Phase 1 of the two-phase project, concluding with a final report, dated October 2024. ORA's involvement concluded following Phase 1. Phase 2 involved trial recruitment, delivery and evaluation. The trial was delivered over the period February to July 2025.

This report presents the findings of the evaluation of the trial. This chapter provides an overview of the current permit system, implementation of the flexi-permits trial and the scope and the structure of this report.

1.1 Background to the Trial

Street works delivered in multiple phases across multiple streets in a same area require multiple permits. This is for example the case for the installation of new utility assets such as telecom fibre infrastructure upgrades. Many of these programmes support national initiatives, including Project Gigabit, which aims to provide gigabit-capable connectivity to 99% of UK premises by 2032.

The proposition for the flexi-permit trial was that the high-level of administration required for multiple individual permits under the current legislative framework limits the efficient and effective delivery of work and, therefore, improvements might be gained by using flexi-permits. The trial was to test this proposition.

While DSIT's initial interest in flexi-permits focused on telecoms and broadband rollout, the trial was designed to assess potential benefits across all sectors, to understand both advantages and impacts of flexi-permits for street works as a whole.

1.2 Current Permit System

1.2.1 Overview of the Current Permit System

“Road works” are works carried out by highway authorities to repair, maintain or replace highways. “Street works” are carried out either by statutory undertakers, who have a statutory right to work on the highway, or licensees. Throughout this report, “works” is used as a general term to include both road and street works.

Street works and road works are a cause of delay and disruption for road users. Delays create costs to the economy and society, with a report produced by Halcrow in 2004 estimating the cost of congestion resulting from street works in England to be £4.3 billion a year. Please note, this assessment was undertaken prior to the introduction of the current permit system for street works, which occurred in 2007. Under the current regulatory framework (notably New Roads and Street Works Act [NRSWA] 1991 and the Traffic Management Act [TMA] 2004 with associated regulations), promoters, which are parties undertaking work by virtue of a statutory right or licence, must obtain a permit from the relevant local highway authority (LHA) before undertaking planned works that require a permit. This enables LHAs to proactively manage works on their networks and apply conditions to minimise disruption. It should be noted that not all works require a permit, and the reader can refer to sections 7.3.3 and 7.3.4 of the code of practice for the co-ordination of street and road works for examples of works that do not require them.

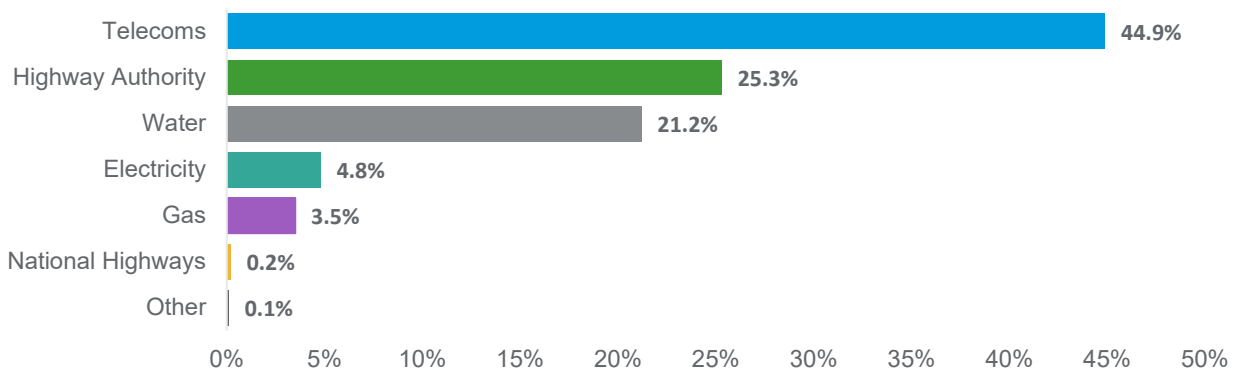
Street Manager, the Department for Transport's (DfT) digital service that supports co-ordination, planning and monitoring of road and street works in England, has been in place since July 2020. Under the current system,

promoters must use the Street Manager system to apply for a permit ahead of commencing planned works (i.e. not including emergency works).

In the Phase 1 report, an assessment of permits captured on Street Manager between 1 January 2021 and 31 December 2023, identified over 6.1 million phases of standard and minor works across circa 380 promoters (circa 3.95 million (65%) were completed). Standard and minor works represented about 88% of all works and major works represented circa 12%. Standard works are those planned to take between four and ten days, minor works are those planned to run for between one and three days, and major works are those expected to take 11 days or more, not including immediate works.

As this trial focused on standard and minor works only, all data and analysis in this chapter refers specifically to standard and minor works. Whilst a broad spread of organisations undertake works, the Phase 1 assessment found that a small number of organisations were responsible for a significant proportion of work, with just two organisations (Openreach and Virgin Media) responsible for creating over 1 million work phases (17%). The works were also concentrated in a small number of sectors. Figure 1.1 shows that the majority of works (c.91%) are created by three sectors: the Telecoms sector (2.7 million, 44.9%); LHAs (1.6 million, 25.3%); and Water (1.3 million, 21.2%).

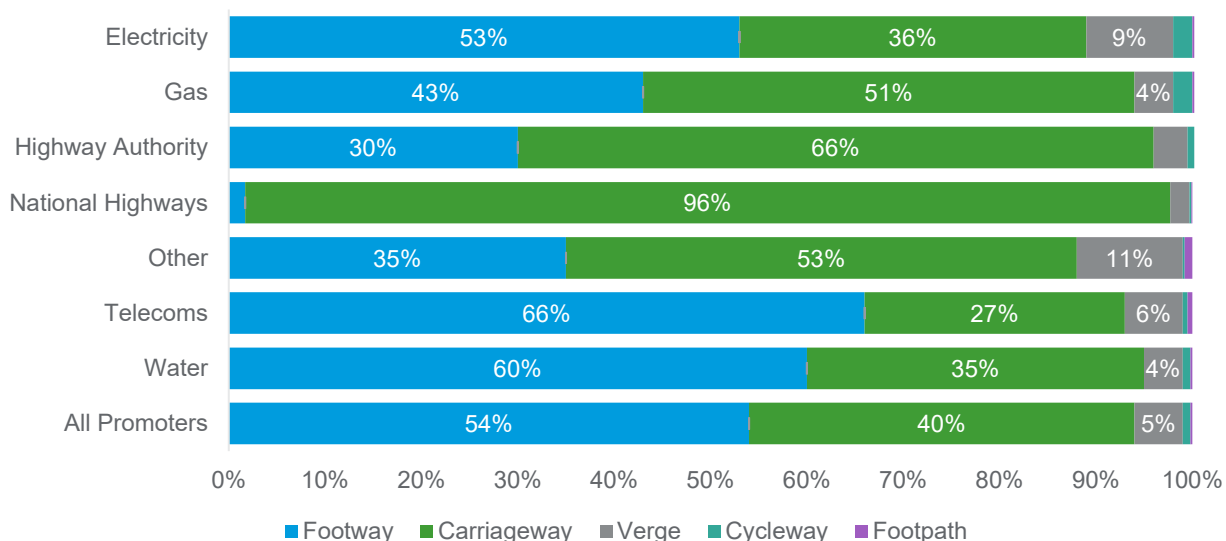
Figure 1.1: Promoter phases created by work category (2021-23)



Source: Street Manager Archived Notifications (data extracted in April 2024)

Figure 1.2 identifies that almost all works were undertaken on either a footway (54%, 2 million works) or carriageways (40%, 1.56 million works). The majority of works undertaken by LHAs (and National Highways) are on carriageways, with more of a mix across other promoters.

Figure 1.2: Promoter phases undertaken by work location hierarchy (2021-23)



Source: Street Manager Archived Notifications (data extracted in April 2024)

Under the current regulatory framework, multiple works along a single street (one Unique Street Reference Number (USRN)) can be managed under one permit, however, works in an area covering more than one street (several USRNs) require multiple permits. Promoters must also submit one permit per work phase, which represents a stage of work or where occupation of the highway has stopped and started again. There are instances where promoters will undertake multiple works in a specific area across multiple streets, such as for cyclical road maintenance work (for example, vegetation cutting or gully emptying) and installing a new utility asset (for example, gas or broadband connections). In such instances, a promoter is required to administer (submit and manage) multiple permit applications for a single programme of work, and the LHA is required to administer these as individual permits. This may result in inefficiency, resource burdens and a lack of co-ordination.

1.2.2 Strengths and Challenges of the Current Permit System

Evidence gathered in the Phase 1 report indicates that the current permit system improves network control and reduces duration and overruns relative to the previous system of ‘noticing’, which required street works promoters (not including LHA promoters) to provide advance notice of certain works to LHAs, but did not require the submission of a formal permit. Smaller gains have been observed for minor and standard works and larger gains have been achieved for major works. It was also noted that the current permit system has increased parity for promoters, since all promoters are subject to permitting which was not the case under the system of ‘noticing’, and that Street Manager has strengthened transparency and dialogue between LHAs and utilities.

The Phase 1 report highlighted issues with the current permit system that are most acute for high-volume, low-duration programmes (for example, [Project Gigabit](#) fibre rollout), namely:

- **administrative burden and co-ordination:** large numbers of individual permits and variations may be needed for a single area programme, increasing workload and the risk of sequencing delays.
- **inflexibility for area-based delivery:** when conditions change or works finish early, moving seamlessly to the next street often requires new permits, fragmenting delivery, especially during ‘permit bursts’, where there is an intensive fibre rollout in an LHA area over a short period of time.

- **overplanning and cancellations:** to hedge uncertainty, promoters may submit more permits than are ultimately needed and cancellations are common for minor and standard works.
- **variation across authorities:** differences in interpretation, information requirements and processing times add complexity to multi-area rollouts.

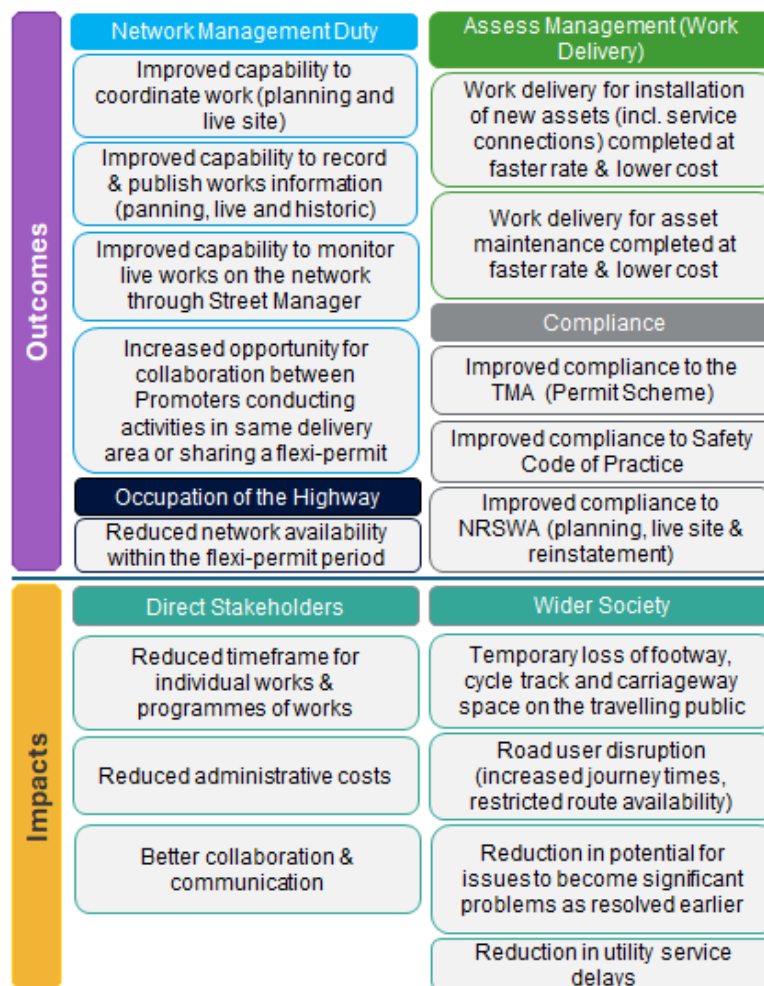
While Street Manager has enabled better visibility and dialogue, it was identified in the Phase 1 report that outcomes depend on the quality and completeness of entries and on LHA capacity to review.

1.2.3 Flexi-permits

Flexi-permits have been identified as one potential solution for the issues identified above in relation to minor and standard works. For the purposes of the trial, a **flexi-permit** has been defined as a single permit covering multiple phases across several USRNs within a limited timeframe, while retaining individual permits for compliance, inspections, offences and reinstatement recording. The concept focuses on minor and standard works and excludes lane-rental streets, Temporary Traffic Regulation Orders (TTRO)-requiring works, and major and immediate works.

The trial intended to test whether targeted flexibility could help to reduce administrative effort and improve delivery efficiency for minor and standard works without eroding LHA oversight. The anticipated outcomes and impacts of the trial are identified in the Theory of Change (ToC) (refer to **Appendix 4**) and summarised in Figure 1.3.

Figure 1.3: Intended Outcomes and Impacts of the Trial (as per the ToC)



Key assumptions regarding the outcomes and impacts of the trial are:

- Promoters can move to progress work on another street in the face of an ‘on-the-day’ barrier and mobilise a support team to address this barrier in the meantime if necessary.
- Promoters progress works at a faster pace and with less disruption than if individual permits were used as per the current system.
- Traffic management, including closing footways or using single-lane systems where vehicles take turns, are used for the safety of workers and the public.
- Overall efficiency gains result from better co-ordinated work phases, increased promoter flexibility, and fewer bureaucratic delays.
- Promoters and LHAs would have lower volumes of permits to process and manage, thereby creating efficiencies (i.e., noting that this will still be required in the short-term, but not in the long term if the policy is approved and implemented).
- Promoters working within the same area recognise efficiency gains to be realised from cooperating.

The Phase 1 report highlighted trial related risks around oversight and control, potential over-booking of road space, and co-ordination challenges across multiple streets and promoters.

1.3 Trial Overview

The purpose of the trial was to assess whether flexi-permits could improve the coordination of street works and the efficiency of resource use, without causing increased disruption for road users. Legislation and Street Manager functionality remained unchanged; therefore, participants were required to run a parallel system in which a programme-level flexi-permit sat alongside the individual permits required to comply with legislation and the Street Manager platform (with fees applied to the individual permits). The constraints associated with running parallel systems in relation to trial participation and the evaluation are outlined in section 2.5. Trial parameters were grouped as mandatory (must apply), flexible (LHA to set within bounds) and optional (locally selectable), as outlined in Table 1.1. Full details can be found in **Appendix 1**. Participation was voluntary, and organisations could withdraw at any stage. The delivery window for the trial ran from **17 February to 31 July 2025 (24 weeks)**.

Table 1.1: Trial Parameters

Application	Area	Parameter
Flexible	Activity Type	Consider works that are remedial works or temporary to permanent reinstatements as part of the programme.
	Boundary	Limit the total extent of the work to a 2km boundary from the initial work phase (circumference). Consideration to be given to the geography of the area, for example, rural or urban, and construct, i.e., not all areas fit into a neat polygon.
	Duration	Total duration of the programme is up to 30 working days. Duration of an individual phase of work is up to 10 working days.
Optional	Street Designation	Streets with the following designations: Special-engineering difficulties; Traffic-sensitive with consideration given to works being undertaken wholly outside of traffic sensitive timings.

Application	Area	Parameter
	Collaboration	Consider opportunities for collaboration with other promoters or organisation workstreams.
	Traffic Management	Exclude work requiring any form of positive traffic control (using strong physical barriers to keep cars out of work zones) or TTROs, except stop and go boards. Note that inclusion of some types of positive traffic control would require specific and timely permits to be submitted.
Mandatory	Boundary	The total extent of the work would be limited to the boundary of the participating Authority.
	Promoters	Includes “undertaker” and “highway authority”. Excludes organisations who are undertaking works by virtue of a licence under NRSWA Section 50 or the Highways Act Section 278, and other authorities.
	Restrictions	Exclude streets where a restriction under NRSWA Section 58 and 58A is in force or will come into force during the trial.
	Street Designation	Exclude streets with the following designations: protected and lane rental. Exclude streets with a reinstatement category of 0, 1 or 2.
	Work Category	Exclude Major and Immediate (Urgent and Emergency work).

1.3.1 Trial Recruitment

16 initial scoping interviews with representatives of LHAs (x8), promoters (x4) and industry stakeholders (x4), were carried out to inform the approach to trial delivery. This also enabled early engagement with several potential participants.

Recruitment for the trial commenced with an information webinar in November 2024. The webinar provided information on: the rationale for the trial; the trial’s design; the evaluation approach; responsibilities, processes, and data requirements associated with the evaluation; and next steps in the trial process. The session was recorded and subsequently circulated to attendees and other key stakeholders. Table 1.2 provides a summary of the webinar’s registrations and attendance.

Table 1.2: Webinar key figures

Metric	Value
Registration page views	559
Registered participants	261
Cancelled registrations	2
Attended participants	230
Attendance rate	88%
LHA organisations that attended	58
Promoter organisations that attended	19

Source: RSM UK, 2024

In total 71 LHA organisations were engaged during mobilisation (either attended or were emailed the recording and survey on 2 Dec); 4 LHAs registered but did not attend; 9 LHAs on the distribution list did not register.

In addition to the webinar, to increase awareness of the trials, a suite of information (including a recording of the webinar, the trial design, and a Frequently Asked Questions document) was circulated to LHAs. LHA contact information was requested from DSIT and DfT and an online search was undertaken of publicly available contact information for LHA street works teams. Emails were circulated to named individuals where possible and sent to generic email addresses if required. Reminder emails were circulated to LHAs and a final invitation to participate in the trial was issued following commencement of the trial to attempt to secure further participation.

1.3.2 Trial participation

Interested LHAs and promoters received a 'Roadmap' document outlining next steps for the trial, along with a data collection template. They were also offered a 1-to-1 planning call. Four LHAs participated in 1-to-1 planning calls. The recruitment activity resulted in:

- eight LHAs stating that they were interested in participating and a further four identifying that they may be interested.
- four promoters stating that they were interested, with a further two identifying that they may be interested.
- 18 LHAs stating that they were not interested in participating.

LHA participation

Two LHAs, Durham County Council and Lincolnshire County Council, progressed to participating in trial delivery within the February to July window.

One LHA engaged with a promoter but they were unable to agree a programme of works before the end of the trial. Four LHAs remained engaged during the trial whilst seeking a promoter but were unable to secure a programme during the trial window.

Four LHAs withdrew ahead of delivery in the trial, citing the following reasons:

- seasonal embargoes on street works, traffic-sensitive streets around tourist areas and limited capacity, noting that existing local flexibilities already worked well.
- capacity constraints (including recruitment freezes) and concerns over resourcing a "parallel system".
- overlapping initiatives (for example, lane-rental preparation, traffic-sensitive reviews).

In addition to the LHAs that withdrew from the trial, some LHAs responded to the trial invitation to advise that they would not be in a position to participate, citing reasons including capacity constraints and resourcing challenges, other events occurring during the trial period (e.g., local elections, state visits) and the timing of the trial, whereby fibre rollout had been completed in their area, which limited the opportunity for eligible programmes of works to be identified.

The overall limited participation in the trial may have also reflected LHA concerns about losing control of their road networks under a flexi-permit system, a topic raised by several LHAs during the information webinar.

Promoter participation

Engagement from promoters (including telecoms and water, gas and electric utilities) resulted in six promoters registering interest in participation. Two further promoters were identified and contacted by LHAs; however, they did not engage with the trial.

Interested promoters were provided a list of participating LHAs to enable them to review planned works in those areas and to determine whether a trial would be suitable within the trial window. Promoters were invited to engage with other LHAs if suitable programmes of work were identified in areas where the LHAs had not yet engaged with the trial.

Where a promoter and LHA identified a programme of works, the following processes were undertaken to develop the flexi-permit:

- agreeing specific trial parameters in line with the trial design.
- agreeing ways of working (communication of whereabouts, planning and programme information required in advance of submission, handling of traffic-sensitive streets, and data returns).
- developing a Memorandum of Understanding (MoU) and forward-planning template.

MoUs were agreed in three LHAs. However, one LHA was unable to agree on a suitable programme of works with its chosen promoter and therefore did not deliver any trials. In total, three promoters were involved in flexi-permit delivery. One telecoms promoter delivered multiple programmes within Durham, and two internal LHA works promoters delivered flexi-permit programmes in their area (Durham and Lincolnshire).

Engagement from other promoters continued throughout the trial period, however, no further programmes of work could be agreed, with the following reasons being cited:

- challenges aligning programme delivery timescales within a fixed trial window as programmes of works are scheduled and agreed several months in advance.
- the exclusion of some types of works in the trial design (for example works requiring positive traffic management) meant that many work programmes would only consist of optional permits, and as such, there was no tangible benefit to be gained by the promoter's participation.
- the time needed to align IT and data sharing for the evaluation.
- a perception that the recruitment period for the trial was too short.

1.3.3 Trial summary

A total of **18 flexi-permit programmes** were delivered by the two LHAs participating in the trial, totalling **327 flexi-permit days**, of which 178 (54%) related to LHA internal works and 149 (46%) related to telecoms promoters. Flexi-permit days refer to calendar days that a flexi-permit was active on. These totals reflect programmes delivered within the trial window. A small number of additional internal programmes were approved between late summer and early autumn; however, these have been excluded from the analysis as they were delivered outside of the trial window.

The average programme length was circa **18.2 days**, and activity was more concentrated in one LHA, Durham, (282 days; 86% of total). Further details on the individual flexi-permit programmes can be found in **Appendix 3**. Flexi-permits delivered in Durham involved surface-treatment sites and telecoms trenching or ducting in semi-urban streets Flexi-permits in Lincolnshire delivered micro-surfacing in semi-urban locations.

The operational model for flexi-permits was implemented as designed and forward-planning became mandatory, with ways of working recorded locally. The roles and responsibilities of stakeholders involved in the trial are outlined in **Appendix 1**. Fidelity to parameters was generally high. Programmes stayed within the agreed scope and duration of the trial. Five flexi-permit trials continued beyond the 31 July observation window and these have been excluded from the impact analysis.

Participants supplied monthly Street Manager extracts, copies of programme-level records, and administrative data for both LHAs and promoters. For selected sites, peak and off-peak observation windows were captured by RSM using Google API live traffic, providing indicative congestion proxies to be triangulated with Street Manager and local evidence.

Overall, the trial generated a workable test bed across two authority contexts and two delivery modes (LHA internal and telecoms), sufficient to support the subsequent process and impact assessments. However, it is noted that this represents a limited sample size and as such, it has implications for extrapolating findings beyond the LHAs involved. Refer to section 2.5 for further details.

1.4 Report Structure

The remainder of this report is structured as follows:

- **Chapter 2: Evaluation Methodology** sets out the evaluation objectives, approach and methods, including data sources, primary research, and associated caveats and limitations.
- **Chapter 3: Process Findings** presents findings on how the trial was implemented and operated including: what worked and what did not; delivery efficiency; comparison with business-as-usual; application levels and change in activity by type; network-management information; and inspections.
- **Chapter 4: Impact Findings** presents findings on what changed as a result of the trial, including: effects on broadband rollout; administrative burden; delivery metrics (for example, durations and overruns, compliance and inspections); interactions with other promoters; and outcomes relating to the public.
- **Chapter 5: Additional Research Findings** presents findings from other stakeholders not directly involved in this trial for example, previous trial participants, street works sector representatives, and representatives from sectors where flexi-permits may have an impact (including water utilities, telecoms and electric vehicles).
- **Chapter 6: Conclusions and Recommendations** draws conclusions based upon preceding chapters and sets out recommendations and next steps.

2. Evaluation methodology

This chapter sets out a summary of the objectives and scope of the evaluation, our approach to gathering and analysing evidence and limitations associated with the approach.

2.1 Evaluation objectives

The evaluation aimed to generate robust evidence on whether the proposed flexi-permit approach works, for whom, and under what conditions. Specifically, the evaluation set out to explore:

- strengths and weaknesses (i.e. issues) with the current permit system.
- whether flexi-permits could be effective in solving the issues identified.
- the impacts of flexi-permits (both intended and unintended).
- whether any improvements could be made to the design and operation of the flexi-permit implemented in the trial.

2.2 Scope

Timeframe and participants. The Phase 2 delivery window ran from 17 February to 31 July 2025. Two LHAs, Durham and Lincolnshire, progressed to live delivery (see section 1.2). Items that began or completed outside the window informed process learning but were excluded in the impact analysis.

Activity in scope. In alignment with the trial design, only minor and standard works were included, while works requiring TTRO, lane-rental streets, major or immediate works, and designated or protected streets were excluded. Traffic-sensitive streets were included only when operated outside sensitive times as agreed locally.

Evaluation questions. The evaluation questions are summarised in Table 2.1 below. The analysis reported in Chapters 3 and 4 maps to the process and impact evaluation questions agreed in Phase 1.

Table 2.1: Evaluation Questions

Type	Summary of Evaluation Questions
Process evaluation questions (PEQs)	<ul style="list-style-type: none"> • Implementation and operation (PEQ1) • Delivery efficiency (PEQ2) • Design improvements (PEQ3) • Comparison with existing permits (PEQ4) • Volumes and mix of works and change activity (PEQ5–PEQ7) • Information for network management (PEQ7) • Inspections (PEQ8)
Impact evaluation questions (IEQs)	<ul style="list-style-type: none"> • Rollout and administrative burden (IEQ1–IEQ2) • Engagement and compliance (IEQ3–IEQ6) • Interactions with other promoters (IEQ7) • Public-facing outcomes (IEQ8) • Effects on LHA works (IEQ9)

Type	Summary of Evaluation Questions
	<ul style="list-style-type: none"> • Attitudes (IEQ10) • Unintended impacts (IEQ11)

2.3 Analytical approach

The evaluation adopted a theory-based design using Contribution Analysis (CA) structured around the ToC (**Appendix 4**), enabling quantitative and qualitative data to be used to build a plausible contribution story rather than definitive causality.

Descriptive analysis of Street Manager records and participant administrative returns was combined with thematic analysis of the semi-structured interview evidence. Qualitative material was thematically coded and mapped back to the ToC and quantitative indicators were summarised.

Quasi-experimental analysis (QEA) was undertaken for journey-time data for flexi-permits where a sufficient number of journeys could be modelled at peak and off-peak times, with and without works present. Findings are reported with confidence statements reflecting data completeness, comparability and consistency across sources.

Further technical detail, including the ToC, contribution claims, QEA specifications, indicator definitions and Google observations protocol, is provided in **Appendix 4**.

2.4 Data sources

The evaluation draws on four key sources of data:

- **Street Manager data:** participant and counterfactual LHAs provided monthly data extracts from Street Manager that captured all permits created within the trial window. This included: permit applications and determinations; statutory and actual lead-times; durations and overruns; cancellations; start and stop notices; inspection volumes and outcomes; reinstatement recording; and offences. Counterfactual LHAs were selected based on a review of four statistics: traffic per mile; works per mile; delay on A roads; and percentage of rural roads. Refer to Appendix 2 for further information.
- **administrative data:** programme-level records (forward-planning notes, area definitions, MoUs, parameter choices) were maintained locally by participants and shared for synthesis. Where available, this included LHA and promoter CRM systems, which supplied complaints and enquiries logs, customer communications, meeting and co-ordination notes, planned vs. actual schedules, and administrative time and cost estimates.
- **journey-time data:** for feasible flexi-permits (for example, sites where a sufficient number of journeys can be modelled), peak and off-peak journey time estimates were captured using the Google Maps Platform live-traffic layer and Distance Matrix API. These snapshots were used only as proxies and triangulated with Street Manager and local operational evidence.
- **primary data:** research included semi-structured interviews with participating and non-participating LHAs, participating and non-participating promoters and wider stakeholders. A detailed breakdown of interview participants by stakeholder type is included in Table 2.2. Key areas of discussion included: motivations for participation (where applicable), views on the current permit system, potential outcomes and impacts relating to flexi-permits, and lessons learned in relation to the design and implementation of the trial. Following initial analysis, three focus groups were undertaken with LHAs to discuss and validate the emerging findings. These took place between 1 and 7 October 2025. Five LHAs were represented across the three focus groups, with eight individuals attending.

Table 2.2: Summary of interviews undertaken

Type of Stakeholder	No.
LHA	14
Declined to participate in trial	5
Industry-led trial participant	2
Participant	2
Volunteered but no promoter	3
Volunteered but withdrew	2
Counterfactual LHAs	3
Promoter	8
Attended webinar but did not engage	2
Engaged by LHA but did not proceed	3
Participant	3
Wider Stakeholder	11
Electric vehicle (EV) sector representatives	3
Street works industry representatives	2
Telecoms sector representatives	2
Water utilities representatives	4
Grand Total	36

2.5 Caveats and limitations

The following limitations should be noted in relation to the trial and evaluation:

- limited sample size:** 18 programme-level flexi-permits (comprising two LHAs, three promoters and 327 flexi-permit days), limits statistical power and the ability to draw conclusions about the wider applicability of the findings and the flexi-permit approach. Findings are presented as a plausible contribution, not a firm attribution.
- legislative and operational boundaries:** The trial did not allow changes to legislation or Street Manager functionality. Therefore, the process tested was not a true flexi-permit system but a hybrid system requiring duplicate submissions. In addition to submitting a programme-level flexi-permit for planning and co-ordination, participants were still required to handle individual permits to comply with statutory requirements. This meant that they had to submit, review, approve and amend each individual permit, creating a process that was more burdensome than a fully implemented flexi-permit system. Consequently, the trial could not fully assess the potential reduction in administrative burden that a genuine flexi-permit system might deliver.

As a result, benefits in relation to efficiency are likely to have been underestimated, as participants faced the additional complexity of preparing and reviewing the same information twice. This also created additional resource implications for the trial which lowered participation. Another limitation was the reliance on self-reported data to assess efficiency impacts. In addition, several trial-specific factors, such as the time taken to

adapt to a new system, affected efficiency but would likely only be temporary in a real flexi-permit environment.

The hybrid nature of the trial also meant that other key features **of a flexi-permit system could not be tested**, including specifically the platform functionality for submitting a flexi permit (without the underpinning individual permits), the fees relating to flexi-permits (including a mechanism for calculating fee levels) and the impact on inspections if individual permits are not submitted to Street Manager (for example in relation to sampling, tracking reinstatements for specific works, and monitoring performance and penalties spanning multiple sites within a flexi-permit programme).

- **selection bias:** voluntary participation can skew towards 'easier' works, trusted partners, or particular geographies. Mitigations (purposeful inclusion of withdrawn and declined LHAs, participants in previous industry-led trials and non-participating promoters, and the CA counterhypotheses) reduce but do not eliminate bias.
- **timing:** a single 24-week window during spring and summer does not reflect winter operations, embargo periods, or changes in demand throughout the year. Some planned items that extended past the 31 July 2025 trial cut-off were excluded from the impact analysis (used only for process learning).
- **scope exclusions:** the trial focused on minor and standard works. TTRO, lane-rental streets, major and immediate works, and designated or protected streets were out of scope (traffic-sensitive streets were allowed outside sensitive times by local agreement). The findings should not be generalised to these categories, as they were excluded due to their perceived unsuitability to a flexi-permit programme.

3. Implementation and delivery of the trial

This chapter brings together evidence on how the flexi-permit trial was implemented and its performance (during the trial) compared to the regular permit system. It combines qualitative insights from interviews with participating LHAs (x2) and promoters (x3) with descriptive statistics from Street Manager. Street Manager findings relate to the two participating LHAs over April to July 2025. Promoter returns are predominantly Durham-based.

3.1 Implementation of the Trial

3.1.1 LHA characteristics

Two LHAs participated in the trial (Durham and Lincolnshire). A summary of street typology, examples of areas and promoters involved with the trial in each LHA is provided in Table 3.1. In Durham, most trial streets were semi-urban suburbs around Durham City, with some urban town streets and limited rural sites. In Lincolnshire, activity was concentrated in rural and village streets with some semi-urban and urban locations. Further details of the flexi-permits submitted in the trial can be found in **Appendix 3**.

Table 3.1: Trial areas, settlement typology and promoter types (April to July 2025)

LHA	Settlement typology of trial streets	Examples	Promoter types
Durham	Semi-urban 75%, Urban 21%, Rural 4%	Brandon, Newton Aycliffe, Seaham, Roddymoor	External telecoms Internal LHA
Lincolnshire	Rural 50%, Semi-urban 31%, Urban 19%	Orby; Hubberts Bridge; Kirton; Coningsby; Sleaford; Skegness	Internal LHA

Source: RSM based on LHA Street Manager data

3.1.2 Motivation to participate

The LHAs participating in the trial reported that they were interested in experiencing firsthand the potential positives (for example, administrative efficiency) and negatives (for example, loss of LHA oversight) of using flexi-permits and to see how the system would work in practice instead of relying on secondary evidence from other trial experiences. Most promoters that were consulted expressed an interest due to the belief that flexi-permits would deliver operational efficiency gains.

Interviews with non-participating LHAs expressed a variety of reasons for not proceeding, including a preference for the regular permit system (x3), a lack of sustained engagement from promoters (x3), a lack of suitable works programmes in their areas at the time (x2), or insufficient internal capacity (x2).

Promoters that engaged with the trial but did not take part, reported that they were very interested in participating but that the timing or nature of works did not align with the trials (x2), or they were unable to engage an LHA (x2).

3.1.3 Organising trials

To organise trials, LHAs contacted promoters that regularly operate in their area to understand levels of interest. In one trial, the LHA contacted all local utilities, however, the majority either did not engage or declined due to not having suitable programmes of works planned (for example several were planning to carry out major works, which did not meet the requirements of the trial). Only one promoter, a telecoms operator planning to carry out a programme of fibre broadband installations, showed strong interest and availability.

In the second trial, the LHA approached their term maintenance contractor to test whether flexi-permits could potentially lead to efficiency gains for the LHA:

“We felt that some of our own workstreams could benefit from it. The flexi-permit system potentially provides efficiencies – in the face of budgetary pressures, we are keen to deliver work in a more cost-effective way” (LHA participant).

All trial participants reported that a number of extensive early engagement meetings were held between LHAs and promoters to establish mutual understanding of how the flexi-permit trial would work in practice, to identify suitable locations, and to agree delivery plans. These engagements provided the LHAs with information needed to carry out “pre-co-ordination checks”, to check if there were any clashes on the network and, to search for opportunities for collaboration with other promoters that planned to work in the same area.

Trial participants largely reported that co-ordination and communication between the LHAs and promoters was constructive, timely and supported effective oversight. The majority reported that the initial planning and engagement meetings had an important role in this regard, as they provided a clear and detailed framework for delivery:

“Through the upfront engagement with the promoter, we received detailed information on what they were going to be doing, how, and where. This ensured we had full oversight of the scale of delivery” (LHA participant).

Interviewees regarded early and strong collaboration between LHAs and promoters as a key success factor, and one LHA reported that the level of collaboration was an improvement compared to the existing system, where it is usually limited. Another LHA raised that the daily updates they received during the trial were critical for visibility, and indicated that a formal mechanism to standardise this aspect would, therefore, be beneficial:

“There would need to be a conversation about what could replace the daily whereabouts updates that we received in the trial. There’s currently no requirement for that, but I think it will be pivotal for large programmes that could be delivered under flexi-permits” (LHA participant).

3.1.4 Flexi-permit submissions and process

Developing and managing flexi-permits

In both LHAs, flexi-permits were developed in an Excel spreadsheet, with all relevant conditions detailed (for example, working hours on each street, planned dates and traffic management measures). Once the flexi-permits had been approved and delivery began, promoters carried out works programmes as agreed at the initial planning stage. Progress updates were provided to the LHAs regularly through emails and phone calls. In cases where amendments to the flexi-permit were required for individual works (for example, if the promoter planned to move onto a new street earlier than initially expected), the Excel spreadsheet was updated and sent to the LHA. This differed to the process for setting up and managing permits under the regular system, whereby individual permits are submitted formally, and variations require requests to be sent to the LHA for approval. The Street Manager extract shows no flexi-permit records with a Permit Modification Request, whereas a small proportion of individual permits did have modification requests recorded (as detailed in Table 3.3).

In total, **22 overarching flexi-permits were submitted to Street Manager** to manage the 18 flexi-permit trials. This reflects some activity relating to re-submissions and cancellations. The 22-overarching flexi-permits have been **excluded** from the analysis outlined below; however, they were linked to a total of 69 individual permits to deliver the flexi-permit work programmes. **The 69 individual permits form the basis of the analysis below.**

Number of flexi-permits vs individual permits submitted

Table 3.2 shows the number of distinct permits received in each LHA during the trial period (reflecting Minor and Standard permits only, excluding Major, Provisional Advance Authorisation (PAA) and Immediate work categories as they were not within scope of the trial). Individual permits linked to a flexi-permit were identified through the

work reference number. The table shows that individual permits linked to a flexi-permit represented only a very small share of total activity (0.5%), around 0.8% of all permits in Durham and 0.3% in Lincolnshire. This is consistent with the trial design whereby flexi-permits were reserved for a narrow subset of works that could be scheduled in advance, involved multiple streets in a same area and could be coordinated as a programme.

LHAs and promoters identified in interviews that they considered flexi-permits for planned, lower-impact programmes (for example, fibre and internal maintenance works) and that they continued to use the standard permit system for other activities, particularly higher-impact or traffic-sensitive works. This reflected the trial scope and shared view that flexi-permits were not suitable for disruptive works.

Table 3.2: Permits submitted (Minor and Standard only)

Category	Durham No.	Durham %	Lincolnshire No.	Lincolnshire %	Total No.	Total %
Individual permits linked to a flexi-permit	39	0.8%	30	0.3%	69	0.5%
Individual permits not linked to a flexi-permit	4,594	99.2%	8,993	99.7%	13,587	99.5%
Total individual permits	4,633	100%	9,023	100%	13,656	100%

Source: RSM based on LHA Street Manager data (data extracted between April and July 2025)

Permit outcomes

Table 3.3 shows permit outcomes for participating LHAs for Minor and Standard permits. The figures presented reflect the status of works at the time of data extraction. As flexi-permits were often closed quickly once a short, multi-street window ended, more flexi-permit records are categorised as “Closed”, which reduces the observed “Granted” proportion, as permits are changed from Granted to Closed following completion of works.

Refusals remained low but slightly higher for flexi-permits (Individual ≈5%, Flexi ≈9%). Refusals were commonly followed by resubmission on the same works record rather than a new record. Please note, refusal figures reflect the pre-application status of permits at the time the data was extracted from Street Manager. The figures include applications that were refused even if subsequently resubmitted on the same works record and subsequently progressed / granted.

Flexi-permits show fewer cancellations (10% compared to 20% for individual permits) and no pre-decision modifications (compared to 2.3% of individual permits). Stakeholder interviews found limited evidence on the reasoning for flexi-permit cancellations, however, one promoter reported that they did have to leave the site and reprofile their plans, in one case, due to a formal complaint regarding the location of a works programme.

Table 3.3: Permit outcomes (LHA dataset, Minor and Standard only)

Permit Stage	Individual No.	Individual %	Flexi No.	Flexi %
Applications submitted	13,587		69	
Cancelled	2,781	20%	7	10%
Closed	8,012	59%	52	75%
Granted or live	1,950	14%	7	10%
Refused	685	5%	3	4%

Permit Stage	Individual No.	Individual %	Flexi No.	Flexi %
Revoked	2	-	0	-
Permit Modification Request	308	2%	0	-

Source: RSM based on LHA Street Manager data (data extracted between April and July 2025)

Change requests and operational flexibility

The majority of trial participants (LHA x2, promoter x2) reported that the flexi-permit system led to a significant reduction in change requests compared to the regular permit system, and that no formal change requests were observed. The LHAs reported that using the flexi-permit, promoters could move between works without delay, which was considered to have been more efficient:

“A big positive was that if a programme slipped or accelerated, they didn’t have to contact us for early starts or extensions – they had the flexibility to move jobs around and bring them forward if needed” (LHA participant).

Similarly, the promoters reported that they occasionally encountered obstructions in streets but, working within the flexi-permit, they did not have to submit change requests and could instead easily move to a different area and return at a later point:

“Once we had completed and agreed the initial plans, we didn’t have to touch the permits again, which was great. It meant less work for us and fewer changes for the LHA to approve” (Promoter participant).

However, one promoter from an LHAs’ internal street works team, disagreed with the majority view. They highlighted that they had to come off-site and re-profile their programme of works, as noted above, due to a formal complaint and other normal works issues (such as parked cars and adverse weather conditions) and that they were required to amend and re-send the updated flexi-permit spreadsheet. They highlighted they normally submit a considerable number of change requests when working within the regular permit system and that the flexi-permit did not lead to a significant reduction in submissions.

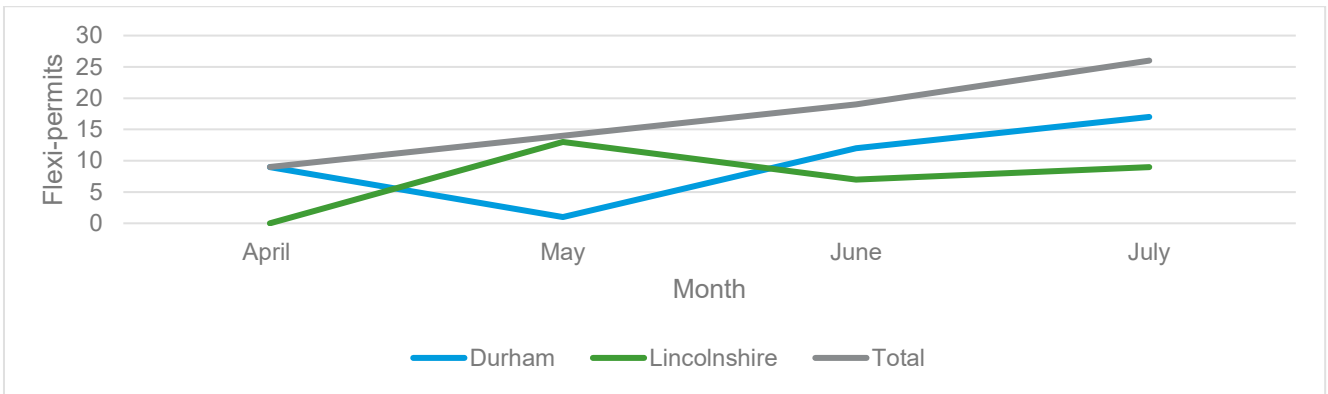
The stakeholder feedback and Street Manager data present an overall positive picture that the flexi-permit system reduced the level of change requests. Therefore, this evidence suggests that the use of flexi-permits in the trial has improved efficiency in managing permit submissions and requests.

3.1.5 Undertaking works

Volume and Profile of Works

Within the trial window, Durham recorded 39 permits that were linked to a flexi-permit, alongside 4,594 individual permits; Lincolnshire recorded 30 flexi-permit records alongside 8,993 individual permits. Figures 3.1a and 3.1b show Minor and Standard permit submissions on a monthly basis in Durham and Lincolnshire. The use of flexi-permits increased over the window in Durham and was present in three out of four months in Lincolnshire, whilst volumes of individual permits (business-as-usual) remained high and increased strongly in July.

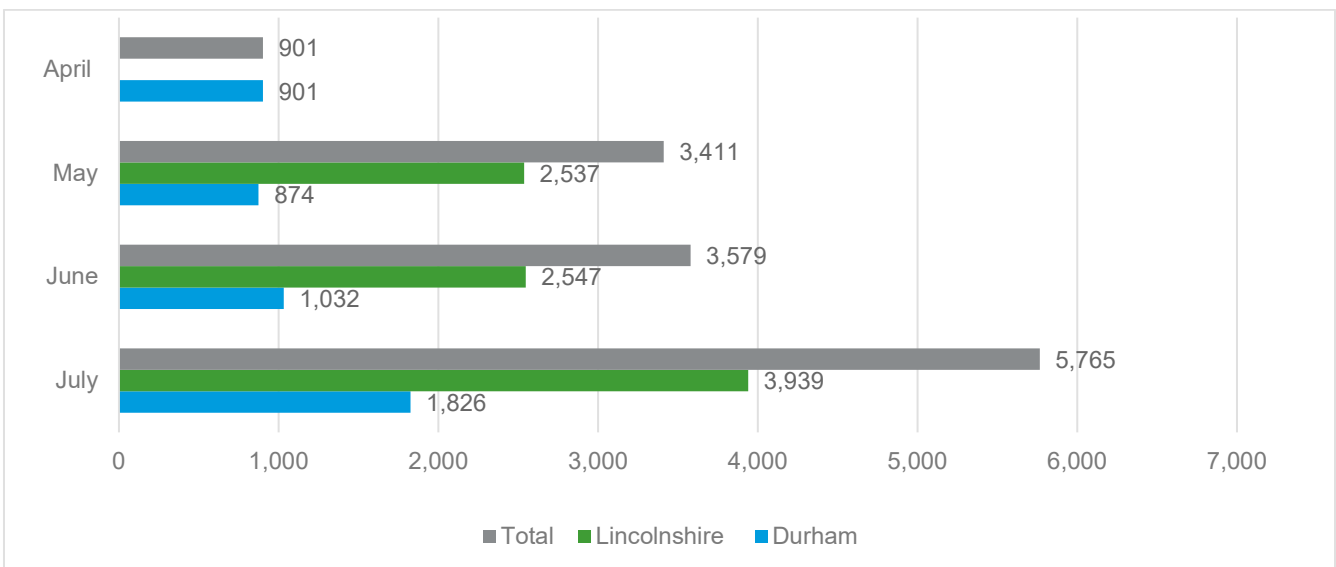
Figure 3.1a: Flexi-permit submissions by area (Minor and Standard only)



Source: RSM based on Street Manager data (data extracted between April and July 2025)

In Figure 3.1b, data relates to individual permits linked to a flexi-permit (69) and not linked to a flexi-permit (13,587). Data for Lincolnshire in April is not analysed due to no flexi-permits being undertaken until May.

Figure 3.1b: Individual permit submissions by area (Minor and Standard only)



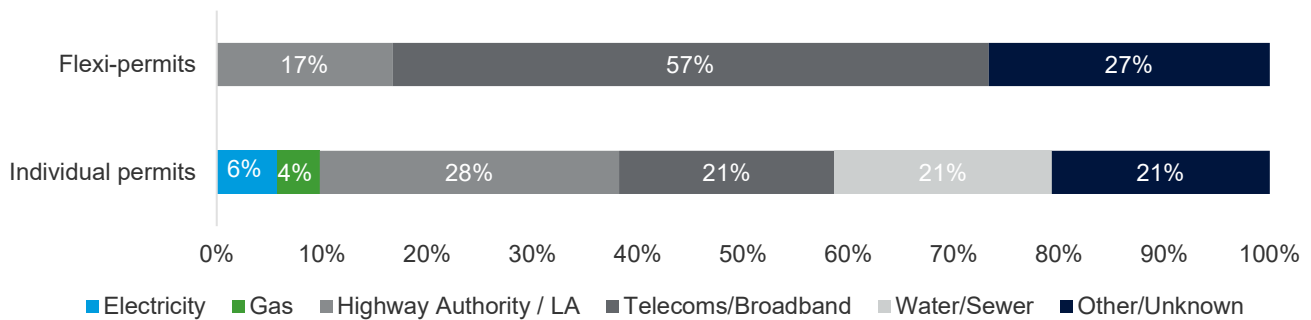
Source: RSM based on Street Manager data (data extracted between April and July 2025)

Sectoral Breakdown

Flexi-permit activity clustered where multi-street programmes could be forward-planned, predominantly telecoms fibre and LHA internal works, while individual permits spanned all sectors including utilities.

As highlighted in Figure 3.2, Telecoms and Broadband represented 57% of flexi-permits compared to 21% of individual permits. In the figure, both the Highway Authority / LA and Other / Unknown categories relate to LHA internal works, despite appearing as separate categories. LHA internal works therefore represented 43% of flexi-permits (i.e., 17% plus 27% of “other or Unknown”). This pattern matches the trial use-case (short-phase, multi-street programmes) and the role of flexi-permits as a programme-level co-ordination mechanism.

Figure 3.2: Sector breakdown of individual permits vs flexi-permits



Source: RSM based on Street Manager data (data extracted between April and July 2025); n=13,587 (individual permits), n=69 (flexi-permits)

Work categories

As expected, there were some differences in the make-up of work categories carried out under flexi-permits compared to regular permits. However, for both types of permits, minor works were the most prevalent category and accounted for a similar share. Table 3.4 provides a breakdown of permits submitted by work category. As per the trial design, flexi-permits were only eligible for Minor and Standard works.

As shown in Table 3.4, a greater percentage of permits submitted under flexi-permits relate to minor works (57%) than standard works (43%). A higher percentage of individual permits relate to minor works (78%), and standard works make up a smaller share (22%). No immediate-emergency or immediate-urgent works took place under flexi-permits, given that these categories were excluded during the trial design stage. Such works are also typically confined to a single street and therefore would not require a flexi-permit.

Table 3.4: Work category profile

Work category	Individual No.	Individual %	Flexi No.	Flexi %	Total No.	Total %
Minor	10,614	78%	39	57%	10,653	78%
Standard	2,973	22%	30	43%	3,003	22%
All Categories	13,587	100%	69	100%	13,656	100%

Source: RSM based on LHA Street Manager data (data extracted between April and July 2025)

3.1.6 Works Efficiency

Most trial participants reported that work programmes were delivered as expected, and that delivery was fluid and well-managed. Operational issues were reported by three promoters, with two of the promoters noting the issues were minimal and did not impact on delivery. These are discussed further in 3.2.2.

There was consensus among participants that the flexi-permits enabled operational efficiency by allowing promoters to move flexibly between streets without encountering administrative delays:

“The key benefit was the fluidity of the system. If we couldn’t work on Street ‘X’ due to an obstruction, we could move into an adjacent street” (Promoter participant).

It was reported by two promoters that despite this flexibility, they requested their work crews to follow a structured programme of works and to only make use of the flexibility when needed (for example if they encountered an

obstruction). This helped to ensure that works were carried out in line with the original programme of work provided to LHAs.

Evidence collected from the flexi-permit trials suggests that works were delivered efficiently. In Lincolnshire, works concluded on average slightly earlier than planned, with no overruns. In Durham, only one flexi-permit was identified as having exceeded its planned duration.

Table 3.5 presents the planned and actual durations of works across the trial window for both flexi-permits and individual Minor and Standard permits in Durham and Lincolnshire, based on distinct permit and calendar-day differences from Street Manager datasets.

All works were found to start on the authorised date; a mean start delay of 0.00 days was recorded for both individual permits and flexi-permits.

In Durham, the planned window averaged 8.8 days while actual delivery averaged 4.7 days, indicating that the work forecast was longer than actual delivery. Absolute durations are not directly comparable to individual permits (which average 2.4 days actual) because individual permits are typically single-street tasks, whereas flexi permits cover multi-street programmes. Alignment to proposed end dates was close: mean end drift was +0.92 days versus -0.37 for individual permits. The observed overrun rate was 0% (no overruns recorded) versus 0.3% (10 of 2,945) for individual permits. Given the very small flexi-permit sample, this difference should be interpreted cautiously.

In Lincolnshire, flexi-permits phases were short and tightly scoped: 4.1 and 1.2 days (planned and actual means, respectively), 0% overruns (0 of 26), and a mean end advance of -1.00 days (individuals -1.08). These findings indicate that works were delivered efficiently in Lincolnshire during the trials. However, the evidence also suggests that works in Lincolnshire were marginally more efficient with individual permits, as shown by the slightly lower end delays for individual permits.

Across both LHAs combined, individual permits averaged 4.2 and 1.6 days (planned and actual respectively) with 0.4% overruns (30 out of 8,012), while flexi-permits averaged 6.8 and 3.0 days (planned and actual respectively) with 0% overruns (0 out of 52) and a small +0.04 day mean end drift, compared to a mean end drift of -0.82 for individual permits. Given the single overrun on a flexi-permit, the magnitude of any overrun appears modest. It should be noted that duration (actual vs planned) differs from end drift (actual end date vs proposed end date) and for flexi-permits, the sequencing / pauses during work programmes can shorten actual days worked yet nudge the finish date slightly later, yielding a small positive drift despite shorter actual durations. On balance, this evidence points towards works being delivered slightly more efficiently using individual permits, however it should be noted that the overrun rate for flexi-permits is based on a small sample and as such the percentage would be highly sensitive to any incidents of overrun.

Table 3.5: Schedule descriptors by area (Minor and Standard permits within window; Durham and Lincolnshire)

Metric	Durham Individual	Durham Flexi	Lincolnshire Individual	Lincolnshire Flexi	Total Individual	Total Flexi
Distinct permit (n)	4,594	39	8,993	30	13,587	69
Planned duration - mean (days)	5.1	8.8	3.8	4.1	4.2	6.8
Actual duration - mean (days)	2.4	4.7	1.2	1.2	1.6	3.0
Overrun eligible (n)	2,945	26	5,067	26	8,012	52

Metric	Durham Individual	Durham Flexi	Lincolnshire Individual	Lincolnshire Flexi	Total Individual	Total Flexi
Overruns (count)	10	0	20	0	30	0
Overrun rate (% actual > planned)	0.3%	0.0%	0.4%	0.0%	0.4%	0.0%
Start delay (vs permit) - mean (days)	0.00	0.00	0.00	0.00	0.00	0.00
End delay vs proposed - mean (days)	-0.37	0.92	-1.08	-1.00	-0.82	0.04

Source: RSM based on Street Manager data (data extracted between April and July 2025); **note:** eligible permits for overruns are those for which an overrun can be measured (i.e., the permit records contain both planned and actual duration at the time of extraction from Street Manager).

Section 74 notices are submitted to LHAs when works overrun an agreed permit period. Across Durham and Lincolnshire, 101 Section 74 notices were recorded within the trial window for minor and standard permits, covering 86 distinct works. All 101 of these related to individual permits; none were for works under flexi-permits. Given this very small number, there is no evidence that flexi-permits increase Section 74 exposure, but results should be interpreted cautiously due to the low sample size (Table 3.6).

Table 3.6: Section 74 metrics

Metric	Total	Durham	Lincolnshire	Individual	Flexi
Total Section 74 notices	101	28	73	101	0
Distinct works with ≥ 1 S74	86	22	64	86	0

Source: RSM based on Street Manager data (data extracted between April and July 2025)

It should be noted that at the overarching flexi-permit level, an overrun rate of 8.3% was recorded. Two notices were recorded against the overarching flexi-permits. This suggests that whilst individual permits were not overrunning, the overall programme did experience overruns. This statistic reflects any case where the actual duration was longer than the planned window and therefore captures small schedule adjustments as well as material delays. It should be noted that overall instances of overruns using flexi-permits were minimal and did not translate into higher Section 74 exposure, as highlighted in Table 3.6.

3.1.7 Category A inspections

Category A inspections are sample live-site inspections carried out while works are in progress, primarily to check safety measures (signing, lighting and guarding) and, where applicable, reinstatement. Unlike B and C samples, A-category sites are selected by the authority because they must coincide with live work activity, as is stated in the Code of Practice for Street Works Inspections (DfT, April 2023).

All trial participants reported that category A inspections were carried out as normal under the flexi-permit model. It was consistently reported that there were no procedural changes or barriers to conducting inspections compared to the regular permit system. However, it was noted that this was due to the trial design, whereby individual permits were required to be submitted on Street Manager in real time.

Most trial participants (n=4) reported that no issues were encountered with regard to inspections being completed. Effective planning, live permit data, and daily whereabouts updates, helped to ensure they could be completed seamlessly.

One promoter reported that they received several inspection failures due to incomplete barrier set-ups on their sites. The interviewee reported that these were standard compliance issues that were unrelated to the flexi-permit structure, and they were promptly resolved through communication with the build team:

“I spoke to the contractor as soon as the issue was raised – it was addressed and did not recur. Those kinds of issues would occur whether we are using a flexi-permit or a regular permit” (Promoter participant).

No interviewees reported any instances of unresolved inspection issues.

The LHAs and one promoter specifically highlighted the importance of the regular whereabouts updates for enabling inspections to be carried out effectively. These updates ensured that inspectors could locate works reliably, even though the flexi-permit covered multiple sites:

“As a result of receiving the daily whereabouts updates, we knew where they were working on a given day. That meant that carrying out inspections wasn’t difficult” (LHA participant).

One LHA also emphasised the value of planning in advance and regular updates during delivery for maintaining the effectiveness of inspections:

“The inspectors knew where the crews were as a result of the updates and individual permits. They would then cross-reference this information against the overarching master flexi-permit, which was a quick process. Timewise, there was no difference compared to inspecting using regular permits” (LHA participant).

A promoter participant also reported that the number of inspections on their sites were consistent with standard practice, which suggests that the flexi-permits did not lead to heightened oversight.

Street Manager data does not indicate any adverse effect from flexi-permits on Category A inspection outcomes over the trial window. On a small flexi-permit sample (n=6), the Category A failure rate is 33% (i.e. 2 failures) compared to 19% for individual permits (n=717, 137 failures).

All other types of inspection activities were also carried out as normal. Table 3.7 shows the number of inspections carried out for individual and flexi-permits, including overall totals, live-site and reinstatement inspections. It also shows the number and percentage of live-site inspections that failed. Between April and July 2025, LHAs completed 29 inspections against flexi-permits, with five live-site failures recorded (17%). In contrast, the regular permit sample shows 1,171 failures (22%) across 5,278 inspections. This suggests that adherence to safety, quality and regulatory standards was improved using flexi-permits.

Table 3.7: Inspection volumes and live-site outcomes (participating LHAs, Apr-Jul 2025)

Metric	Individual	Flexi
Distinct works inspected (≥1 inspection)	2,640	11
Live-site inspections (count)	5,278	29
Live-site failures (count)	1,171	5
Live-site failure rate	22%	17%
Reinstatement inspections (count)	780	2

Source: RSM based on Street Manager data (data extracted between April and July 2025)

3.1.8 IT Systems

A promoter noted that internal management systems showed all works within the flexi-permit as starting and ending on the permit's open and close dates. This initially caused confusion for work crews, as it appeared that every job covered by the flexi-permit was ongoing each day. To overcome this issue, work crews were instructed to follow the schedule that had been provided to them separately, so that they knew when they were supposed to work on each street. No problems in delivery were reported as a result of this challenge.

Trial participants provided several suggestions for how the design of the flexi-permit process could be enhanced. A view held by all participants was that flexi-permits could be managed more efficiently through better digital integration. Participants noted that the trial required manual workarounds (for example, developing and updating an Excel spreadsheet and providing email updates) and that administration could be streamlined if a digital solution was developed that could incorporate flexi-permits, such as an adaptation to Street Manager.

One LHA reported that in the absence of individual permits, they would be concerned about how reinstatements would be correctly registered. It was emphasised that any system upgrade would need to ensure reinstatements were recorded against the correct USRN.

“If flexi-permits are introduced, I’m assuming some sort of individual permit would have to be issued for each. Otherwise, I don’t know how you would register the reinstatements for each individual street” (LHA participant).

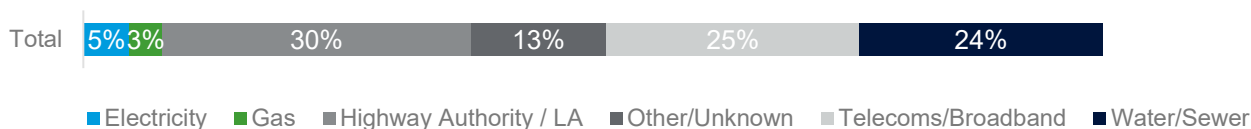
It was also reported by two respondents (promoters) that being able to update the status of individual streets within the flexi-permit would be beneficial. One reported that the ability to “complete” individual URSNs within a flexi-permit would improve accuracy and that completed streets remaining “live” under the flexi-permit would create confusion.

3.1.9 Counterfactual benchmark - non-participating LHAs

To contextualise the trial findings, headline Street Manager metrics were also reviewed for three non-participating LHAs, Hampshire, West Berkshire and Wiltshire, over the same April to July 2025 window. This benchmark covers 21,023 individual permits (Minor and Standard categories) and provides contextual ranges rather than a formal comparison.

On a sectoral basis, the benchmark areas show a spread of individual permits across HA works (30%), telecoms and broadband (25%), water and sewer (24%) and the main utilities (electricity 5%, gas 3%), with the remainder coded as other or unknown. This mix is broadly similar to the sector profile of individual permits in the two trial LHAs, suggesting that the trial authorities are not atypical in terms of who is working on the network (Figure 3.4).

Figure 3.4: Sector breakdown of Minor and Standard permits in non-participating LHAs



Source: RSM based on Street Manager data (data extracted between April and July 2025); n=21,023

Table 3.8 presents the number (and percentage) of individual permits across the three benchmark LHAs by work category, highlighting that the LHAs are also dominated by minor works, which account for 88% of permits (18,396 of 21,023).

Planned and actual durations sit in a similar range to the trial authorities: across the three benchmark LHAs, planned durations average around 2.8 days and actual durations around 2.4 days, with authority-level means ranging from 2.3 to 3.0 planned days and 1.9 to 2.7 actual days.

Table 3.8: Work category profile (non-participating LHA, Minor and Standard permits)

Work category	Individual (count)	Share (%)
Minor	18,396	88%
Standard	2,627	12%
All categories	21,023	100%

Source: RSM based on Street Manager data (data extracted between April and July 2025)

Table 3.9 identifies permit outcomes across the three benchmark LHAs, which follow a pattern comparable to the trial LHAs' individual permits. Around two-thirds of permits are closed, with the remainder split between cancelled, granted and live, progressed and refused, with a small number of revoked permits and permit modification requests recorded. This supports the view that the cancellation, refusal and modification request rates observed in Durham and Lincolnshire sit within a normal operational range.

Table 3.9: Permit outcomes (non-participating LHA, Minor and Standard permits)

Metric	Individual (count)	Share (%)
All applications submitted	21,023	100%
Cancelled	4,241	20%
Closed	13,163	63%
Granted	2,534	12%
Refused	838	4%
Revoked	13	0.1%
Permit Modification Request	269	1%

Source: RSM based on Street Manager data (data extracted between April and July 2025)

A review of inspection data across the three benchmark LHAs highlights that 3,270 inspections were recorded in total, covering just over 1,611 distinct works; the live-site failure rate was around 7%, with 606 Category A inspections and a Cat-A failure rate of 19%. These figures are in the same broad range as those seen in the trial LHAs (for individual permits), although direct comparisons should be treated with caution, given differences in local inspection practices.

Taken together, these benchmark figures suggest that the two trial LHAs sit within a normal operating range in terms of sector mix, work categories, durations, permit outcomes and inspection performance. While the benchmark is not a matched control and cannot be used to make formal causal claims, it provides some assurance that the trial findings are being compared against a broadly typical pattern of business-as-usual activity.

3.2 Participant experience

3.2.1 Work delivery

Operationally, the majority of participants (x1 LHA, x2 promoters) said that flexi-permits led to greater efficiencies in delivery compared to regular permits. However, one promoter reported that the loss of precision in sub-contractor tracking offset these benefits and stated that they did not notice an increase in efficiency. This promoter noted that tracking of sub-contractors is not an issue under the existing system, as they are confined to work on a single street per permit.

Types of work

Both LHAs and one promoter agreed overall that flexi-permits are an enhancement compared to the regular system for certain types of work. They found flexi-permits to be particularly beneficial for low-impact, non-excavational, and high-volume works taking place across multiple streets.

However, they expressed a preference for the regular system for high-impact works. Both LHAs reported that high-impact works involving positive traffic management measures is better managed under the regular permit system. The rationale for this is that: (1) high-impact works requiring road closures or traffic management such as temporary traffic lights are more disruptive and therefore require tighter control, and (2) the benefits of flexi-permits are greatest for low-impact and fast-moving works across multiple streets, where flexibility in timing and location allows for more efficient delivery. Isolated and time-intensive works would benefit less from this flexibility as they require more structure and control.

Operational issues

Two promoters reported experiencing small operational issues, whereby their sub-contractor was not updating the flexi-permit references on the permit boards correctly. One described this as a *“teething issue”* which required more time to be spent with contractors to improve their understanding. Another promoter noted that their subcontractor often gave vague whereabouts updates which hindered location tracking. Whilst these are small issues, it suggests that the system may benefit from structured onboarding of contractors in the early adoption stages. It also indicates that a standardised whereabouts reporting format would enhance transparency.

3.2.2 Communication and co-ordination

Trial participants largely reported that the timeliness and quality of information submitted to LHAs during delivery did not differ substantially in the flexi-permit trial compared to when using regular permits. Two respondents (LHA x1 and promoter x1) reported that the most notable difference with regard to information sharing occurred in the pre-delivery stage, as promoters provided more detailed information on delivery plans.

However, several trial participants (LHA x1 and promoters x2) did report that whereabouts updates during the trial were more frequent than usual. LHAs received daily updates on locations during the trial, compared to either weekly or ad hoc updates under the regular system. This increase in the frequency of updates resulted from agreement between LHAs and promoters on what would be most suitable for the trial. Under the regular system, the frequency of updates was seen to vary by promoter, as well as the type of work undertaken (for example, LHAs would ask promoters for more regular updates on major works, which are more disruptive), rather than being based on system requirements.

Stakeholder feedback indicates that the methods for providing updates did differ across the trials. It was reported that LHAs and promoters agreed at the beginning of the trials that updates on progress would be provided through the Excel spreadsheet containing the flexi-permit. However, in one trial, the LHA reported that this spreadsheet was:

“Time-consuming and difficult to keep on top of” (LHA participant).

In this instance, the LHA and promoter resorted to daily updates via phone call, which was reported by both parties to have been sufficient for sharing information.

In the other trial, the promoter provided the LHA with daily whereabouts updates through updating the Excel spreadsheet and sharing this via email. The LHA reported that this process worked well and allowed them to document progress more efficiently than if informal communications were used.

Whilst the majority of participants reported that the timeliness and quality of information submitted to LHAs during delivery was not significantly affected by the flexi-permit system. However, one promoter from an LHA's internal street works team did state that they faced challenges due to contractors on the ground not always providing updates as required:

“The challenge was identifying where people were at a given time. We would then have to say, ‘we’re in this area’ rather than ‘we’re on this specific street’. With individual permits, you could pinpoint exactly where the work was happening” (Promoter participant).

3.2.3 Overall views and learning

Trial participants generally viewed the flexi-permit process as a practical and workable alternative to the existing permit model for certain categories of street works, but with trade-offs.

LHA representatives indicated that the day-to-day co-ordination of street works worked more effectively using flexi-permits. One reported that they were able to keep track of progress through informal updates, which sufficed, as they had been provided the necessary detailed information in the original work programme. As noted above, they also reported that updating the flexi-permit spreadsheet was relatively inefficient.

Overall, these findings indicate that the flexi-permit trials largely did not impact on the timeliness and quality of information provided to LHAs, although in several cases more regular updates were shared. However, the feedback suggests that unless expectations regarding information sharing are aligned across LHAs, promoters and sub-contractors, there is potential for information sharing to become more challenging.

Several stakeholders also made suggestions for a potential future implementation of flexi-permits. One LHA reported that documentation could be made simpler for street works promoters:

“If we were working with a utility or an external contractor, the parameters that are set out would have to be really clear. Providing a concise summary that details the parameters of the flexi-permit, instead of a 20-to-30-page document, would be helpful” (LHA participant).

The same LHA also raised a concern that many of the promoters that are likely to benefit from flexi-permits, such as recently created fibre or EV companies, often have less experience and knowledge of street works legislation. They indicated that if flexi-permits were to be rolled out formally, they would like to see system-level education to ensure that promoters are fully able to understand and comply with legislation before using a flexi-permit.

3.3 Summary of findings

Implementation and Participation

- The flexi-permit trial was successfully implemented in two LHAs.
- Non-participation was mainly due to lack of promoter engagement, unsuitable works, or limited internal capacity.
- No major resource or cost impacts were reported.
- Early engagement meetings to build mutual understanding of how the flexi-permits would work and to discuss and agree delivery plans resulted in a clear operational framework that was key to success.

Delivery and Efficiency

- Works were delivered smoothly, with plans largely on schedule and minimal overruns.
- Efficiency was high where programmes were clearly defined and sequenced.
- Change requests were notably fewer under flexi-permits due to better upfront planning and flexibility in adapting to on-site issues.
- Flexi-permits were considered by participating LHAs as being beneficial for works that cause minimal disruption to traffic, are short in duration, and avoid major excavation of the carriageway or footway, for example, minor surface repairs or the installation of small street infrastructure. They were seen as especially suitable for high-volume programmes of this nature, involving many individual works across an area, such as broadband or EV charge-point rollouts. They were not considered suitable for disruptive works.

Comparison with Regular Permits

- Flexi-permits were seen as a practical alternative to the existing permits with similar workloads for LHAs and promoters and that they involved a reduced level of administration following approval of the flexi-permit due to a reduction in change requests.
- They required more upfront effort but improved co-ordination, reduced duplication, and enhanced day-to-day management.
- Most interviewees noted greater delivery efficiency, though one highlighted tracking limitations.

Information Quality and Network Management

- Information quality and timeliness were broadly comparable to regular permits.
- Inconsistent update methods (for example, spreadsheets) caused some challenges.
- Clearer alignment of information-sharing expectations between LHAs and promoters was recommended.

4. Outcomes of the trial

This chapter presents a non-technical summary of the evidence of outcomes of the flexi-permit trial (as presented in Section 1.1.3). It combines qualitative insights from interviews with participating LHAs, promoters and wider stakeholders, with descriptive statistics from Street Manager and journey-time data from Google API. **Appendix 4** presents the evaluation framework, outlining expected evidence for each evaluation question. The CA framework has been tested and presented in **Appendix 6** and details of the QEA methodology and results can be found in **Appendix 5**.

Note: given the limitations associated with the sample size for flexi-permits and the concentration in two LHAs, results should be interpreted as indicative of how flexi-permits may work for schedulable, multi-street programmes. However, caution should be taken in extrapolating the findings to other LHAs and contexts.

4.1 Administrative burden of permits on promoters and LHAs

Trial participants generally reported that the process required more time upfront to plan, submit and review flexi-permit applications, compared to the regular permit system, but that this was offset by lower administrative effort during delivery. Trial participants did not identify any notable impacts of the trial on overall resourcing and costs. All respondents reported that the processes required to set up and manage the flexi-permits during the trial were absorbed into existing workflows, and that no changes in staffing were required.

LHAs provided mixed feedback on the time taken to review flexi-permit applications. One respondent stated that the process of reviewing a flexi-permit application, once it was submitted, was administratively more efficient than reviewing applications for an equivalent number of individual permits. However, the other LHA noted that the flexi-permit applications took longer to review. This was primarily because the overarching flexi-permits had to be submitted as major, which therefore required Provisional Advance Authorisations (PAAs) to also be submitted in Street Manager. The PAAs also required review by the LHA (in addition to the subsequent major works permit for the flexi-permit). This would not occur in a true flexi-permit system. However, the LHA noted that the detailed upfront discussions and coordinated checks also added to review times.

Despite the extra time required to set up flexi-permits compared to regular permits, stakeholders consistently reported that administrative time savings were achieved during the delivery. The built-in flexibility meant changes to work locations did not require system updates, avoiding the need for re-permitting and reducing subsequent administration for both the promoter and the LHA.

On balance, comparing the additional time required upfront with time saved during delivery, stakeholders highlighted that flexi-permits had no notable impacts on overall resourcing and costs:

“From a cost perspective, it was about the same for us as working with regular permits” (Promoter participant).

Administrative trial data collected by the LHAs and promoters showed that, on average, 5.3 hours were spent per organisation on administrative tasks in the pre-delivery phase, with LHAs averaging 4.1 hours and promoters average 7.7 hours. The average cost of this stage to the LHAs was £391.80, cost data was not available for promoters. The time and costs spent during this initial phase comprised of the following activities:

- in the forward planning phase, LHAs and promoters typically had one co-ordination meeting, lasting 90 minutes on average. However, it was noted that one flexi-permit required four meetings during this initial phase. In contrast, one LHA indicated that structured co-ordination meetings do not usually occur when using the regular system as they are not mandatory.
- it was estimated that it required an average of 4.7 hours for promoters to prepare and submit the required forward-planning information during the trial, and that it typically took LHAs less than one hour to review this

information, at an average cost of £69 to the LHA. This was calculated by taking the mean cost of administrative time needed to review the forward planning information for each flexi-permit, based on the hourly rates of LHAs' internal reviewers (for a sample of nine flexi-permits with available data). Trial participants reported that forward planning is typically not mandated and less formalised using the regular system, and the LHAs agreed that submission of forward plans varies by promoter, with many not providing forward plans at all.

- during the forward planning phase, time spent on administration, co-ordination and documentation (in addition to meetings) was less than one hour on average, costing LHAs £232 (based on LHAs estimates of hourly staff costs).
- flexi-permit applications required an average of 1.5 hours for promoters to prepare and submit, and 0.6 hours for LHAs to review. In comparison, it is estimated that the individual permits that underpinned the flexi-permits required on average 2.3 hours to prepare and 0.8 hours for LHAs to review. This suggests that flexi-permits on average were faster to prepare and review than an equivalent volume of individual permits.

Overall, the increased time required for forward planning and co-ordination meetings resulted in more administration in the pre-delivery phase for flexi-permits compared to the standard permit system. However, as noted above, stakeholders perceived that this was offset by administrative time savings during delivery (for example, through a reduction in change requests). This view cannot be verified as factual estimates of time spent on administrative tasks in the delivery phase were not available. Despite this, the substantial reduction in change requests that occurred in the trials, highlighted in section 3.1.4, which also showed that four out of five participants observed no change requests at all, provides a strong indication of administrative savings.

4.2 Engagement between promoters and LHAs

4.2.1 Level of engagement

Most interviewees agreed that the upfront effort required to set up a flexi-permit was greater than that for a regular permit.

The LHAs agreed that unlike regular permits, which often arrived with minimal notice, the flexi-permits involved earlier engagement and more detailed discussions. However, one reported that these steps improved their visibility and ability to co-ordinate works compared to the current system.

Promoter participants (x2) agreed that the flexi-permit required more work at the outset to outline plans for works programmes to the LHA but noted that this led to improved co-ordination and understanding compared to the ad hoc interactions that often occur when using regular permits. One promoter, an internal LHA works representative, disagreed with this view, highlighting that they engage rigorously with network management both before and during delivery of works irrespective of whether they are using a regular permit or flexi-permit.

The majority of trial participants (LHA x1, promoter x2) reported greater engagement between the LHA and promoters during the pre-permit application stage, compared to the regular permit system. It was reported that this occurred for two reasons:

- the novelty of the trial meant that upfront meetings were necessary to build mutual understanding of how the flexi-permit would operate. This may reduce over time if LHAs and promoters build an effective working relationship in relation to flexi-permits.
- as the flexi-permits covered multiple streets for a longer period and offered greater flexibility in timing and location, there was a greater need for collaborative planning between LHAs and promoters to ensure that activity could be co-ordinated effectively and that the LHA could maintain visibility of works.

Both LHA participants reported that initial engagement meetings with promoters and co-ordination checks took more time than is usually the case when using regular permits, however, it was noted that additional benefits were derived through the meetings:

“The initial meetings were very long and time-consuming, but on the other hand they were beneficial, because we received more information on the scale of delivery” (LHA participant).

Similarly, two of the three promoter participants referenced the increased frequency and depth of initial engagement meetings with the LHAs.

Trials with two of the promoters reported that the level of engagement between LHAs and promoters during delivery of street works did not change considerably during the trial. Communications often took place via phone or email updates, which was considered normal practice when managing minor or standard works. However, in one trial, the LHA and promoter reported that these communications took place with increased frequency through daily whereabouts updates as the dynamic nature of the flexi-permit necessitated more regular interaction to enable effective oversight and co-ordination. Additionally, the other LHA reported receiving improved information from promoters during the trial.

One promoter, from an LHA's internal street works team, reported that engagement levels were not impacted by using a flexi-permit:

“We hold regular meetings with sub-contractors and the network management team, both before and during delivery, regardless of the permit type. It was business as usual with the flexi-permit” (Promoter participant).

Therefore, there is a mixed picture overall on the impact of the trial on engagement levels. The majority view indicates that initial engagement increased but that interaction during delivery did not change substantially, however, daily whereabouts updates provided enhanced visibility of works.

4.2.2 Experience of LHAs working with promoters

LHA trial participants reported that their overall experience with the trial was positive, with no adverse impacts experienced in terms of their own costs, resources or demands.

Also, as referenced above, an LHA representative highlighted that the detailed initial engagement meetings with promoters provided considerable benefit to the LHA by allowing them to acquire more detailed information on the promoter's delivery plans, which improved their ability to oversee and manage their network.

However, there is uncertainty whether the level of engagement and cooperation would be present in a formalised process i.e. outside of trial conditions. One LHA noted that as a minimum, a requirement for detailed delivery plans with dates and co-ordination checks should remain mandatory.

Furthermore, one LHA reported that whilst day-to-day engagement was positive, this was helped by having familiarity with the promoter and reflected that more rigorous early engagement would be needed with an unfamiliar promoter to establish an effective relationship, in order to support smooth delivery of a flexi-permit.

4.3 Duration of street works

Trial participants provided mixed feedback on the degree to which flexi-permits impacted on the duration of street works when compared to the regular permitting system. On one hand, an LHA and a promoter that took part in the same trial reported that works were completed ahead of schedule, with the flexi-permit contributing to this outcome. Whilst both respondents also noted that favourable weather conditions contributed to works being delivered faster than planned, they noted that the flexi-permit system helped them to achieve this outcome, by creating the flexibility to move between sites without having to request permit modifications or early starts.

However, amongst the other trial participants (LHA x1, promoter x2), whilst it was acknowledged that the flexi-permit provided increased operational flexibility, no noticeable impacts on street works durations were observed:

“I don’t think we saved any time on site. The subcontractor could certainly move around sites more freely, but the programme would have taken the same time with or without the flexi-permit” (Promoter participant).

One promoter did acknowledge that they would expect time-savings if they were using flexi-permits more broadly across their works programmes. This suggests that the flexibility and administrative savings associated with flexi-permits leads to only minimal time savings for smaller programmes of works but may have a more significant cumulative effect on larger programmes of works.

Street Manager data in relation to works durations (Table 3.5, Section 3.1.6) show that the mean actual duration of the individual permits underpinning flexi-permits was 3.0 days versus 1.6 days for individual permits. The overrun rate was 0% for flexi-permits versus 0.4% for individual permits, on a small sample; overall overrun incidence remained low. Starts were on time on average (mean start delay \approx 0.00 days), and the mean end delay versus the anticipated end date was +0.04 days for flexi, versus -0.82 days for individual permits. These findings indicate that works on individual streets within the flexi-permits were typically slower than when using individual permits. However, most work packages were still delivered to the intended timescales.

Supplementary administrative data provided by a promoter (limited to data on five flexi-permits delivered by an external promoter in one LHA), identified that works were completed ahead of schedule in relation to only one flexi-permit (20%) - the works were completed in seven days compared to a planned 12 days. The other four flexi-permits (80%) saw works overrunning - it should be noted that one of these instances was due to the build being put on hold (for 17 days). In total, across the five flexi-permits for which data on work durations was provided, the average overrun time was four days. Please note: this data refers to the overarching flexi-permits. The data presented in Table 3.5 refers to the individual permits that underpin the flexi-permit; therefore, it is not directly comparable). The findings from this supplementary data indicate that the flexi-permits did not lead to works being delivered faster than originally planned. However, the five flexi-permits represented by this data account for only a small proportion (28%) of the total number of flexi-permits delivered by the trial, 18 in total.

4.4 Delivery of LHA Street Work programmes

In both LHAs, the trial was tested with the LHAs internal street works promoters. This section refers to LHAs as the management authority and LHA internal works promoters as the works delivery teams. Trial participants provided mixed feedback on the degree to which flexi-permits impacted the LHAs’ internal works programmes. One LHA reported strong benefits in relation to flexibility, reduced permit modifications, and more efficient delivery of works. An LHA internal works promoter did not notice substantial benefit. It was noted that the requirement to provide daily updates on progress and whereabouts of works and keeping in contact with contractors delivering the works increased their administrative burden. Whilst this did not create substantial issues, and overall delivery was not noticeably different. It was reported to offset benefits that they expected the flexi-permit to provide.

4.5 Compliance

Trial participants consistently reported that they did not observe any impacts of the flexi-permit on levels of compliance, compared to when working with the regular permit system:

“The failure and pass rate were on par with the regular permit system. The quality of workmanship and delivery was exactly the same.” (LHA participant).

Where issues were encountered, these were considered to be standard issues that would arise under the current permitting system. Start and stops were carried out as per normal. One respondent did highlight an issue with updating the permit notice (i.e. contractors were not updating the flexi-permit reference on permit boards) but felt this was just a teething issue and quickly rectified.

4.6 Promoter collaboration

Stakeholders that participated in the trial consistently reported that other promoters were not encountered in the same area. This was coincidental and not by design or considered when granting a flexi-permit. This meant that the trials could not test the impacts of flexi-permits on other promoters and the possibility of multi-promoter collaboration.

4.7 Impact on the general public

The majority of participants reported that the flexi-permit trial did not result in any additional (positive or negative) impacts for the public when compared to similar types of work using an equivalent volume of regular permits. The core reasons for this, as reported by three respondents (LHA x2, promoter x1), being: works took place on non-traffic sensitive roads; and only passive traffic management measures were used.

One LHA reported that overall levels of complaints from the public were lower in the trial compared to when using the regular permit system. It was perceived by the LHA that this may have been due to positive engagement from the promoter:

“They sent letters saying, ‘these streets will be booked between X and Y dates’ – I assume this contributed to reduced complaints” (LHA participant).

However, the promoter involved reported that the level of complaints that they received was not noticeably different.

The other LHA reported that they provided information directly to the public and other local stakeholders about the date ranges and locations of works that would be taking place across the overarching flexi-permits, enabled by the visibility they gained at the planning stage. They reported that the level of complaints from the public remained similar to what is usually experienced.

Administrative data from the trial shows that four of the flexi-permit programmes (22%) received complaints, ranging between one and four complaints. In three of these four programmes, the works were being delivered by external promoters. Stakeholder feedback consistently indicates that the level of complaints experienced during the trial was “normal” for any programme.

It was raised by one LHA that whilst the flexi permit system worked well, they would not use it for major traffic management measures due to the potential for greater disruption:

“If flexi-permits came in, I wouldn’t want to see them used for road closure or traffic lights or anything significant that disrupts the highway” (LHA participant).

The journey-time data from **Google API** has been subject to an econometric analysis to determine if there is a statistically significant change in journey time as a result of the trials. **No significant change has been found** i.e. journey times were not either increased or decreased as a result of works undertaken during the trial. Further details on the methodology, supporting data tables and technical outputs can be found in Appendix 5.

4.8 Attitudes towards flexi-permits among LHAs and promoters

Most trial participants (x2 LHAs and x2 promoters) viewed the trial as a positive experience overall. Three of these respondents stated that the trial worked better than expected, increasing their confidence in the flexi-permit model:

“The trial has made us much keener to pursue flexi-permits. We would like to test it on other types of work” (LHA participant).

However, one trial participant (internal works promoter) reported that they found the process of operating within the flexi-permit more challenging than originally anticipated. This was attributed mainly to moderate challenges

faced in maintaining visibility of sub-contractors working within the flexi-permit space. They also noted that managing and updating the Excel-based spreadsheet was more time-consuming than anticipated. This internal works promoter also reported that the flexi-permit did not impact on their overall delivery of works, particularly as they “*already have quite good flexibility*”. They reported that the trial has, therefore, reduced their willingness to adopt flexi-permits.

4.9 The potential impact on the rollout of gigabit-capable broadband

Feedback from stakeholders that participated in the trial indicates that flexi-permits could have a positive impact on the rollout of gigabit-capable broadband, particularly by enabling more flexible scheduling, reducing administrative delays, and improving co-ordination with highway authorities.

One LHA observed that the fibre rollout that took place in their trial benefitted from flexi-permits, as the system facilitated more collaborative planning with the LHA and allowed schedule adjustments to take place without repeated changes to permits that would otherwise be required. The promoter that took part in this trial agreed, noting that the flexi-permit model suited their approach to delivery. This stakeholder added that they would expect the gigabit-capable broadband rollout to happen quicker using flexi-permits, due to the flexibility and co-ordination benefits provided by the system.

Other stakeholders that participated in the trials also consistently reported that the flexi-permits enabled street works teams to maintain momentum and avoid delays, due to the ability to move between sites without the need to re-permit. In addition, promoters generally reported that flexi-permits are particularly well-suited to fibre works, which are often high-volume and span multiple streets. This feedback suggests that flexi-permits could help to streamline broadband rollouts. Furthermore, the enhanced visibility of street works that LHAs reported as having during the trials is also likely to be beneficial for large-scale broadband rollout.

Despite the overall view that flexi-permits could enhance the gigabit-capable broadband rollout, interview findings did highlight some important caveats. In particular, two promoters noted that their trials focused on internal or non-broadband works. Therefore, while they saw theoretical value for fibre deployment, their experiences did not provide evidence of direct impact.

In addition, one LHA highlighted that, in their view, many new fibre companies are often the most likely to lack sufficient understanding of basic street works legislation. This suggests that without proper onboarding and education, the effectiveness of flexi-permits may be undermined.

4.10 Unintended outcomes

Trial participants reported no unintended outcomes from the trial.

4.11 CA Synthesis

As noted in section 2.3, a CA framework was implemented to assess the attribution of outcomes and impacts to the trial. A summary of the findings is presented below, with further detail available in **Appendix 6**.

Three contribution claims were developed in consultation with DSIT and DfT to test the contribution of the Flexi Permit Trials. Table 4.1 presents a summary of the assessment of each contribution claim.

It is important to note that several outcomes observed during the trials (such as increased engagement between LHAs and promoters and sharing of delivery plans) are behavioural in nature and likely influenced by the trial context itself, particularly the heightened scrutiny and participants’ awareness of being observed. Consequently, the evidence should be interpreted with caution, as these outcomes may not persist under routine conditions once the trial environment and its associated incentives are removed.

Additionally, the trials were deliberately scoped to include only programmes involving minor and standard works on non-traffic-sensitive streets (types 3 and 4), using passive traffic management measures. The contribution

analysis compares experiences under the trials with those under the regular permit system for works meeting the same criteria. Findings should not be generalised to other types of works' programmes, as different operational dynamics are likely to apply.

In September 2025, a workshop was held with representatives from DSIT and DfT to review emerging findings related to the contribution claims. Based on the evidence presented and subsequent discussion, the refinements below were made. See Table A4.1 for the Contribution Claims as originally developed at the evaluation design stage:

- Contribution Claim 1 (Causal Hypothesis): The final sentence was revised to remove the clause "*with fewer conflicts,*" as the trial did not yield sufficient evidence regarding impacts on conflicts between promoters and between promoters and LHAs across the highway network.
- Contribution Claim 2 (Alternative Hypothesis): The clause "*...and seasonality effects for works that are weather-dependent*" was added to reflect the influence of an additional contextual factor observed during one of the trials.

Data was collected in relation to all three contribution claims, so it was considered appropriate to proceed with testing the contribution of the trial.

Table 4.1: Summary of CA outcome

Contribution Claim (as drafted in the Evaluation Framework)	Assessment Outcome	Evidence	Alternative Hypothesis	Assessment Outcome	Evidence
CC1: The implementation of the trial will contribute to an improved capability to co-ordinate work among stakeholders and greater visibility of planned works.	CC supported	Stakeholder interviews highlighted that the trial contributed to improved co-ordination and visibility by fostering upfront planning, regular updates and information sharing between promoters and LHAs. Trial data from Street Manager showed reduced permit cancellations and efficient administrative processes.	AH1: Communication and co-ordination may be enhanced by other contextual factors that fall outside the trial for example, changes in staff or leadership, more efficient use of the current system.	Insufficient evidence to reject AH	Several stakeholders noted that strong pre-existing working relationships contributed to effective delivery, while use of the existing system to record reinstatements was also important for LHA visibility. This provides moderate evidence of influencing factors outside of the trial that were also important in enhancing coordination and visibility. It was also reported that improved planning and co-ordination could be achieved using the regular system with better utilisation of available tools.
CC2: The trial will contribute to more efficient use of resources and work delivery for LHAs and promoters.	CC supported	Stakeholder interviews reported that the trial supported more efficient work delivery by enabling operational flexibility and reducing delays from re-permitting, allowing smoother transitions between sites. Despite this, administrative data from a small sample of flexi-permits indicates that overruns were common. Overall cost impacts remained unclear, but stakeholders perceived them to be negligible.	AH2: The efficient use of resources and work delivery may be enhanced by external factors, including changes in the type of works being delivered, more efficient use of the current system, changes to LHA and promoter personnel and ways of working, and seasonality effects for works that are weather-dependent.	Insufficient evidence to reject AH	The trial did not coincide with changes in personnel, system use, or work types, suggesting these external factors had limited influence on efficiency. However, in one trial, favourable weather conditions contributed to timely delivery. This provides moderate evidence of the influence of an external factor. A comparison of data across flexi and non-flexi-permits shows that whilst delivery was faster than planned on average for both permit types, delivery was more efficient with non-flexi-permits.
CC3: The trial will contribute to increased road user	CC unsupported	All stakeholders agreed that flexi-permits had no substantial impacts	AH3: Road user disruption may occur as a result of	AH rejected	All trial participants reported that no issues were encountered

Contribution Claim (as drafted in the Evaluation Framework)	Assessment Outcome	Evidence	Alternative Hypothesis	Assessment Outcome	Evidence
disruption, leading to increased journey times and restricted route availability.		on road user disruption and that complaints from the public were not noticeably different compared to using a regular permit system. This was because the trials only involved passive traffic management and took place on non-traffic sensitive streets.	external factors such as the volume and frequency of emergency works within trial area, issues and changes within the public transportation system and increased traffic as a result of one-off incidents (such as major events or traffic collisions).		regarding road user disruption caused by the flexi-permits. Admin and Google API data support this assertion.

Following the analysis of evidence in relation to each Contribution Claim, the three Claims can be reworded to the following:

- The implementation of the trial contributed to an improved ability to co-ordinate work among stakeholders and greater visibility of planned works, particularly through facilitating collaborative planning and improved information sharing. However, strong pre-existing working relationships and use of existing individual permits to record reinstatements were also important factors.
- The trial showed some evidence of contributing to more efficient use of resources and work delivery for LHAs and promoters, particularly through increasing operational flexibility and reducing delays typically associated with modifying individual permits. However, this did not lead to clear impacts on costs or overall improvement in delivery speeds compared to using regular permits.
- The trial did not contribute to increased road user disruption and had no significant impacts on journey times.

Summary of findings

Planning and administration

- Flexi-permits required more time and effort during initial planning and application compared to regular permits. However, both LHAs and promoters reported that this was offset by reduced administrative effort during delivery.
- There was no reported impact on overall staffing or costs, with activities absorbed into existing workflows.
- Application and review times were generally lower than for multiple individual permits, particularly during delivery due to reduced need for updates and re-permitting.

Engagement and collaboration

- Upfront engagement increased during the trial, driven by the novelty of the system and the broader scope of flexi-permits.
- Initial meetings were time-consuming but beneficial for improving delivery oversight. This may reduce over time if LHAs and promoters build an effective working relationship in relation to flexi-permits. During works delivery, engagement remained largely unchanged.
- The trial did not test cross-promoter collaboration, as no overlapping works occurred.

Operational outcomes

- Flexi-permits offered operational flexibility but had mixed impacts on actual work duration.
- The flexibility offered by flexi-permits may yield greater time savings at scale, particularly for larger programmes, but it was not possible to test this point within this trial.
- Feedback was mixed in relation to delivery of LHA work programmes. One LHA (network management), noted improved efficiency and reduced need for modifications, while another LHA (internal works team) experienced increased administrative burden from daily updates and contractor co-ordination, diminishing expected benefits.

Quality and public impact

- No changes in compliance levels were observed.
- The flexi-permit model did not adversely affect permit adherence or quality of delivery.
- Flexi-permits had no reported negative impact on the public. Works were typically on non-traffic sensitive roads with passive traffic management.
- Journey time analysis found no significant effect on congestion.

Stakeholder perceptions

- Most LHAs and promoters viewed the trial positively, with the majority expressing increased confidence in flexi-permits.
- One promoter found the system more challenging than expected, particularly regarding subcontractor visibility and data management, leading to reduced enthusiasm for flexi-permits.

Future applications

- Stakeholders reported that flexi-permits are likely to be well-suited to the rollout of gigabit-capable broadband, but it was not possible to test this point within this trial. Practical evidence was limited, particularly from promoters not focused on broadband works.
- Education and onboarding for new promoters were identified as essential for success.

Unintended outcomes

- No unintended consequences were reported.

5. Additional research findings

This chapter presents findings from interviews with non-trial participants stakeholders and post-analysis focus groups with LHAs. The aim of these discussions was to capture the wider sectoral view of flexi-permits and enable comparison between the findings of this trial and previous trials. Interviews were held with:

- *representatives of two LHAs that took part in previous industry-led trials of a flexi-permit system but did not participate in this trial.*
- *a group of wider stakeholders, including LHAs that have not participated in this recent trial (x13).*
- *Promoters that initially engaged but did not participate in this trial (x5).*
- *industry stakeholders (x11), including the EV sector, water and telecoms promoters, as well as street works industry bodies.*

Please note: *data presented from previous trials has been provided by external sources and it has not been independently verified. It should also be noted that there is the potential for selection bias in relation to the stakeholders willing to engage with the research.*

5.1 Previous Industry-led Trials Participants

5.1.1 LHA Experience

Previous industry-led flexi-permit trials were delivered by telecoms promoters between 2020 and 2024. The trials involved voluntary participation from LHAs across England, and featured various works associated with broadband asset installation, maintenance and upgrades, such as cabling and duct blockage clearances. The findings in this section are based on interviews with two participating LHAs, who did not take part in the most recent trials in Durham and Lincolnshire. However, it should be noted that trials took place in at least 9 LHAs. Other LHAs were contacted but did not respond or declined to take part in an interview.

The two interviewed LHAs that participated in these previous trials reported they had a willingness to test and help shape the development of the flexi-permit system, with one respondent stating that they were keen to “*feed into future policy direction*”. One LHA highlighted that, as a larger authority, they saw value in being involved early in the process of trialling flexi-permits, to help ensure any new system would be scalable and workable for an authority of their size. The other LHA, having been approached by a telecoms company, agreed to take part, curious to see whether the system would deliver operational benefits.

The set-up phase involved defining the scope of works and establishing operational boundaries. In both trials, the flexi-permits were established and managed through One.Network (a platform to plan, monitor, communicate and analyse traffic disruptions), which, while operationally sound, did not detail specific site locations but showcased a broad “*polygon area*” that the promoters planned to work in. This was deemed to create ambiguity for the LHAs.

Both LHAs reported that once the trials were underway, they encountered significant challenges. One LHA reported increased workload in carrying out inspections, co-ordination, and monitoring, with little visibility of where works were taking place. One LHA highlighted that promoters did not provide timely whereabouts, making it difficult for inspectors to locate sites or respond to public queries. The other LHA experienced similar issues: works were carried out without notification, and retrospective permitting meant the authority often learned about activity only after completion. This undermined their ability to inspect live sites, verify traffic management, or ensure proper reinstatement. In both cases, the lack of real-time information and promoter accountability was reported to have led to a loss of control over the network.

Neither LHA observed meaningful benefits from the trial, with one reporting that they saw no improvements in speed, efficiency, or co-ordination. The other LHA reported that they observed fewer early start requests, however, this was considered to be a negligible gain that did not outweigh the operational drawbacks.

5.1.2 Previous Industry-led Trial Data and Promoter Views

Industry-led trial data was provided for the evaluation by a telecoms promoter. The promoter delivered street works under a total of 21 flexi-permits, and the trials took place in nine different LHAs. There was an average of 10 USRNs per flexi-permit, and the number of USRNs in each ranged from a low of three to a high of 19. All the trials featured traffic management up to and including give and take and footway closures. The works delivered in these trials included civils cabling, new duct installations and blockage clearances. A breakdown of the number of flexi-permits delivered and their characteristics is included in Table 5.1.

Table 5.1: Industry-led trial characteristics

Metrics	Value
Total number of flexi-permits delivered	21
Number of unique LHAs	9
Average number of USRNs	10
Smallest number of USRNs	3
Highest number of USRNs	19

Source: Industry-led trial promoter data (between 2020 and 2024)

The average time taken by LHAs to review each flexi-permit was 7.2 days. The average time from an application submission to beginning of works was 16.8 days. It can be seen in Table 5.2 that the average time taken to deliver works was almost a day faster than the average planned duration. The majority of work programmes in these trials, 62%, were reportedly delivered on schedule, and a greater percentage were delivered ahead of schedule (29%) than behind schedule (10%). These findings indicate that the works programmes were largely delivered to intended timescales. There were no reported instances of collaborative works taking place with other promoters within any of the flexi-permits.

The calculation of the average review time in Table 5.2 has removed four extreme outliers, out of a total of 21 flexi-permits. These outliers were caused by mis-reported information. The calculation of the average lead-in time has removed five extreme outliers, caused by a combination of mis-reported and missing information.

Table 5.2: Industry-led trial timings and collaboration

Metrics	Value
Average review time (working days between application submission and approval)	7.2
Average lead-in time (working days between submission and works start)	16.8
Average planned duration of works (working days)	23.9
Average actual time taken to deliver (working days)	23.1
Number of works delivered on schedule	13 (62%)
Number of works delivered ahead of schedule	6 (29%)
Number of works delivered behind schedule	2 (10%)
Total number of collaborative works with other promoters	0

Source: Industry-led trial promoter data (between 2020 and 2024)

Directly comparing the industry-led trial data with similar data from this trial should be undertaken with caution as: (1) the design of the trials were different; (2) a comparison between the performance of flexi-permits and regular permits has not been undertaken for the industry-led trial data; and (3) the industry-led trial data has not been verified. However, at a high level, it can be observed that:

- the difference in the average for planned and actual delivery was higher in this trial (3.8 days of difference, Table 3.5) compared to the industry-led trials (0.8 days of difference);
- the overrun rate was reported to be lower in this trial (0%, Table 3.5) than in the industry-led trials (10%); and
- in relation to administrative time for reviewing the flexi-permit, the industry-led trial data reports the time taken between submission and approval of the flexi permit to be 7.2 days, whereas data for this trial estimates that, on average, 4.1 hours were spent by LHAs on administrative tasks in the pre-delivery phase.

The evaluation has obtained a small amount of qualitative feedback from a promoter on their experiences of these previous industry-led trials. Whilst the stakeholder interviewed was not heavily involved in the trials, they reported that their contractors and delivery teams noted benefits such as improved engagement with LHAs, as the flexi-permits facilitated dialogue on the delivery of an overarching programme of works, unlike the regular system, which involves submitting permit applications for one street at a time. This view contrasts with the feedback provided from LHAs that participated in the industry-led trials, detailed above, painting a mixed picture on previous trial experiences: the LHAs viewed the trials negatively, while the promoter reported a positive experience.

5.2 Wider Stakeholder Views

5.2.1 Overall feedback

Stakeholder views on how flexi-permits might work in the future and their potential impacts are divided. Promoters and industry stakeholders tend to expect flexi-permits to improve scalability, reduce administration, and streamline multi-site co-ordination of street works. Telecoms representatives highlighted the potential for efficiency gains in area-based fibre broadband rollouts, while water suppliers identified similar benefits for smart metering programmes and minor repair works, and EV sector stakeholders noted potential advantages for the rollout and maintenance of charge-points. At the same time, stakeholders across all sectors agreed that flexi-permits would be unsuitable for highly disruptive projects and emergency works, and of limited relevance for isolated activities. They consistently emphasised the need for clear rules and conditions to govern how flexi-permits would operate.

In contrast, a large proportion of the LHAs interviewed tend to believe that flexi-permits could undermine oversight and control for LHAs, which was considered to work well (on balance) under the existing regime and is important for inspections and enforcement. Most LHAs expected that flexi-permits could shift influence toward promoters and complicate co-ordination unless supported by robust safeguards.

5.2.2 Implementation and delivery under the current system

Stakeholders broadly agreed that the street works permit system functions well once permits are in place, particularly for routine or well-planned works. However, promoters and industry stakeholders largely felt that challenges emerge in scaling delivery, especially for high volumes of short-duration or low-impact jobs in concentrated areas. This includes works such as fibre broadband installations, smart metering installation programmes (water), and EV charge-point installation and maintenance.

LHAs generally found the current processes for setting up and managing permits to be effective, however, several noted that the quality of applications can vary, which was perceived to reflect inconsistent understanding of permit legislation across promoters.

Promoters and industry stakeholders described the overall system as fundamentally sound but reported that the application of permit conditions varies across LHAs, which creates administrative friction and confusion, particularly for those operating in a new area for the first time.

Promoters and industry stakeholders also commonly reported that the existing system creates administrative strain when they are delivering high volumes of sequenced work packages in close proximity, due to both a need to apply for many individual permits, and to frequently request changes or modifications when work plans shift. Change requests were described as common by LHAs, yet mostly manageable for their teams.

“Permitting for build work often uses minor and standard permits for short duration works, and it’s very transactional. The cancellations, reapplications and variations can become hugely inefficient when you’re doing bulk works” (Promoter).

Resourcing was not a major concern for most LHAs, but promoters and industry stakeholders frequently reported operational burden, especially under tight timeframes or national programme pressures.

Stakeholders identified opportunities for overall system improvement, including greater national standardisation, more intuitive digital tools, and investment in training for all system users (LHAs, promoters and contractors), all of which are seen as key enablers of effective delivery of street works.

5.2.3 Current system outcomes

Some LHAs noted improvements in compliance with permit conditions from stricter oversight, while others flagged a tendency among promoters to pay fines rather than fully comply. Several noted that when compliance issues occur, they are often due to sub-standard safety practices, such as failing to enclose sites with adequate barriers.

Promoters generally viewed complying with permit conditions as manageable. However, several stakeholders in the EV and water sectors highlighted that adapting to different local authority requirements creates challenges and increases the risk of errors. As one water promoter explained:

“The basic rules are quite clear, and we follow them, but councils interpret them differently. Our systems are set up to comply with legislation, yet inconsistent expectations lead to fixed penalty notices” (Promoter).

Category A inspections were seen as effective overall across stakeholder groups, but several LHAs reported that delivery is at times challenged either by limited capacity or fast-moving works.

Views on work durations were mixed. Several promoters and industry stakeholders from the EV, water and telecoms sectors cited inefficiencies from rigid permit structures and delays in progressing follow-on works and they noted that the time taken to process permits can act as a bottleneck. Promoters from the telecoms and water sectors also observed that the system rarely allows for multiple concurrent jobs to be bundled within the same locality. As a result, contractors must travel longer distances between dispersed sites, extending durations.

Promoters also described collaboration with other promoters as difficult due to limited visibility of pending applications and operational differences, though some successful co-ordination was reported. For example, one telecoms promoter described proactively engaging with other utilities to align works in the same area.

Stakeholders broadly agreed that the current permit system has room for improvement in addressing public-facing issues. Four promoters (x2 telecoms, x1 water) and industry stakeholders emphasised the need for better communication and engagement. They reported that disruption and congestion were not always proactively managed, and that better co-ordination and clearer public information provided by promoters (for example, clearer signage and real-time updates) could help to address this:

“Street works will always cause disruption. But I do think we need to move towards building better relationships between communities and those undertaking the work” (Promoter).

Whilst these four stakeholders noted that these improvements could occur under the regular system, two (telecoms) reported that flexi-permits could enhance information sharing, as they would enable promoters to provide information in advance relating to an overarching programme works, including date ranges.

One industry stakeholder also reported that there is room for improvement within the current permit system, stating that the existing framework does not contain comprehensive guidance on how to mitigate congestion.

5.2.4 Perceived impacts of flexi-permits

Promoters, industry stakeholders and some LHAs interviewed saw flexi-permits as a promising tool for streamlining operational delivery, particularly for high-volume, low-impact works and multi-street schemes, including gigabit-capable broadband rollout, EV charge-point installation and metering programmes. Promoters anticipate smoother mobilisation, reduced delays, and lower administrative burden through more agile scheduling and fewer formal permit amendments:

“Flexi-permits would increase rollout speed and reduce overall cost. Being able to plan an entire area—like a street or estate—in a single application would make the build easier and more fluid” (industry stakeholder).

However, LHAs consistently raised concerns about reduced visibility, weaker oversight, and co-ordination challenges. One noted:

“We may know a flexi-permit is granted, but not when specific phases are being worked on or which roads are affected. That would cause problems for inspectors and co-ordination” (LHA stakeholder).

Many LHAs highlighted the strengths of the current system (such as predictable scheduling and clearer control) and stated that flexi-permits could shift operational influence toward promoters, complicating inspections and enforcement. These concerns were especially pronounced around Category A inspections, where reduced site clarity was expected to hinder effectiveness and increase resource demands. LHAs were also concerned that broader time windows could mask inactivity, complicate monitoring, and increase disruption. Promoters anticipate improved data flows through bulk planning and real-time updates, but LHAs cautioned that without robust systems and consistent reporting, location-specific clarity may suffer. Across all groups, delivering street works efficiently and with robust oversight using flexi-permits was seen to depend on strong planning, clear boundaries, and integrated digital infrastructure to maintain accountability.

Views on the impacts of flexi-permits on the general public were similarly divided. Several promoters expect clearer communication and reduced disruption with flexi-permits, while LHAs commonly anticipated a risk of increased complaints and confusion due to vague scheduling and limited transparency.

5.2.5 Focus group views

Three post-analysis focus groups were undertaken with LHAs that did not participate in this trial or in the previous industry-led trials, to test the emerging findings of the trial and to obtain their feedback. The focus groups were carried out from 1 October to 7 October and were attended by five LHAs (eight attendees in total). The key findings from these focus groups were as follows:

- **Reduced visibility and control:** LHAs were sceptical of the trial finding that the flexi-permits improved visibility of works, arguing that they would expect them to reduce oversight and control over their network. It was considered likely that flexi-permits would obscure where works are happening day to day, complicating inspections, enforcement and compliance tracking.

- **Scepticism over potential efficiency gains:** LHAs agreed with the feedback from one LHA trial participant that application review times were not more efficient with flexi-permits, as they noted that individual streets within a flexi-permit would still need to be reviewed with the same rigour as before. Participants were not surprised by the mixed trial findings on how delivery speeds were impacted, as they reported that durations often depend on the promoter and contractors in question. One respondent noted that promoters may be able to move faster during delivery using flexi-permits, but that this would not justify the reduced oversight and increased risk of disruption.
- **Trial experience may not be reflected in ‘real world’ delivery:** LHAs suggested that whilst the feedback on elements of this trial was positive, performance may deteriorate in the absence of trial scrutiny. The LHAs opposed a blanket rollout of flexi-permits and argued that they should be able to approve and reject them on a case-by-case basis, factoring in context and historical promoter experiences.
- **System limitations hinder flexi-permit implementation:** the LHAs strongly agreed with trial participants and other wider stakeholders who stated that Street Manager and third-party platforms and systems are not currently equipped to support flexi-permits. Participants called for system upgrades if flexi-permits were rolled out to enable accurate tracking and reinstatement registration.

The findings emerging from the focus groups are highly consistent with the views provided by other LHAs interviewed that either participated in industry-led trials or had not participated in trials. Non-participants had more negative views than the two LHAs that participated in this trial, however, as noted above, there is a risk of selection bias impacting the findings. Whilst some theoretical benefits were acknowledged, practical risks (including reduced oversight and system limitations) were seen to outweigh potential gains.

5.3 Summary of findings

Current system experiences

- Stakeholders broadly reported that the current street works permit system is effective for routine, well-planned jobs but more challenging for high-volume, short duration works.
- However, promoters described it as rigid and inconsistently applied across authorities
- All stakeholders identified opportunities for overall improvement of the current system, including greater standardisation across England, more intuitive digital tools, and investment in training (for LHAs, promoters and contractors).

Flexi-permit perceptions

- Promoters viewed flexi-permits as a potential solution to streamline delivery of multi-street, short duration works (e.g., fibre broadband and EV charge-point rollouts).
- LHAs raised concerns about flexi-permits leading to reduced visibility, weaker oversight, and co-ordination challenges, which could complicate inspections, extend disruption, and increase public complaints.
- These issues were also highlighted by LHAs that participated in two previous industry-led trials, who also observed that these trials did not produce any meaningful improvements in delivery or co-ordination.

Conditions for success

- All stakeholder groups highlighted that successful use of flexi-permits would be dependent on strong planning, clear boundaries, and integrated digital tools to maintain accountability.

6. Conclusions and recommendations

This chapter presents conclusions and recommendations from the evaluation of the flexi-permit trial, capturing key findings obtained from across all strands of research (stakeholder consultations, quantitative data analysis, QEA, contribution analysis and focus groups). The conclusions reference agreed PEQs and IEQs and the chapter also summarises key considerations for any future development of flexi-permits.

6.1 Conclusions

Two LHAs and three promoters participated in the trial between April and July 2025. A total of **18 flexi-permit** programmes were delivered by the two LHAs participating in the trial, totalling **327 flexi-permit days** of which, 178 (54%) related to LHA internal works and 149 (46%) related to a telecoms promoter. The average programme length was circa **18.2 days**, and activity was more concentrated in one LHA, Durham, (282 days; 86% of total).

The majority of participants had a positive view of the trial, with increased confidence in the flexi permit model, although one promoter faced operational challenges, highlighting the need for better subcontractor oversight and process management. Flexi-permits were also considered by participating LHAs as being beneficial for works that cause minimal traffic disruption, are short in duration, and avoid major excavation of the carriageway or footway, for example, minor surface repairs or the installation of small street infrastructure. They were viewed as especially suitable for high-volume work programmes of this nature, involving many individual works across an area.

Examples include fibre broadband and EV charge-point rollouts, water metering installations and replacements, minor utility repair works across water, gas and electricity, and footway surface treatments.

Key observations from the trial include:

- implementation and operations were successful (*PEQ1*). Trial participants did not identify any notable impacts on resourcing and costs to operate the trial. Work was absorbed into existing workflows (*PEQ2*);
- trial participants reported that work plans were delivered as expected, with no significant operational issues, and delivery was broadly described as fluid and well-managed (*PEQ1, PEQ2*);
- the majority of interviewees agreed that flexi-permits led to greater efficiencies in delivery compared to regular permits, due to the agility provided by the system (*PEQ4*). Trial data suggests that flexi-permits recorded a slightly higher end date delay (+0.04 days) compared to regular permits (-0.82 days). One promoter noted that the loss of precision in sub-contractor tracking offset operational benefits and did not notice an increase in efficiency;
- early engagement and co-ordination increased and was noted as being a key enabler to successful implementation (*IEQ3*). The greater level of engagement was due to both the novelty of the system and a need for collaborative planning. Engagement levels during delivery did not change considerably compared to working with regular permits (*IEQ3*);
- more upfront effort was required to set up a flexi-permit than for a regular permit (*IEQ2*), but this led to improved co-ordination and understanding compared to the ad hoc interactions that often occur when using regular permits, and reduced duplication of effort (*PEQ4*). Stakeholders consistently reported that increased administration upfront was offset by time savings during delivery (*IEQ2*);
- the total number of flexi-permit submissions was substantially lower than the number of individual permits submitted across the two LHAs that participated, 69 compared to 13,587. Flexi-permits exhibited a lower cancellation rate, 10% versus 20%, and a marginally lower refusal rate, 4% versus 5%, (*PEQ5*);

- trial participants reported that the flexi-permit system led to a significant reduction in change requests compared to the regular permit system, with several noting that they did not observe any formal change requests at all (*PEQ6*). Data from the trial supports this, showing zero permit modification requests;
- flexi-permits enabled greater flexibility in work scheduling, though impacts on overall work durations were mixed (*IEQ4*). Some time savings were observed and stakeholders suggested that greater time savings might be achieved at a greater scale of activity. However, this point was not tested within this trial, given that works took place on a relatively small scale;
- no change in compliance or quality standards was observed, with issues encountered being consistent with standard permitting processes (*IEQ5*). On a small sample, the Category A failure rate was higher using flexi-permits (33%, n=2) than individual permits (19%, n=137);
- minimal impact in relation to journey times, congestion or disruption to the public was reported, with no increase in complaints or congestion (*IEQ7*).
- stakeholders reported that flexi-permits are likely to be well-suited to the rollout of gigabit-capable broadband, but it was not possible to test this point within this trial (*IEQ1*);
- trial participants largely reported that the timeliness and quality of information submitted to LHAs during delivery did not differ substantially compared to when using regular permits, although several did indicate increased frequency of updates (*PEQ7*);
- Category A inspections were largely carried out as normal using flexi-permits, supported by frequent whereabouts updates and the submission of individual permits in real time on Street Manager (*PEQ8*);
- the trials could not test the impacts of flexi-permits on multi-promoter collaboration, as stakeholders consistently reported that no other promoters were encountered in the same space (*IEQ6*);
- on LHAs' internal works programmes was mixed. One LHA reported strong benefits in relation to flexibility, efficiency and reduced permit modifications, while the other did not experience any notable improved efficiencies on their delivery processes (*IEQ8*);
- most trial participants (x2 LHAs, x1 promoter) reported that the trial went better than expected. Their views of flexi-permits shifted from scepticism to support for their use for similar programmes of works in future (*IEQ9*); and,
- no unintended outcomes or impacts from the trial were reported (*IEQ10*).

Stakeholders consulted via additional research (including LHAs that participated in two previous industry-led trials, LHAs and promoters that have not participated in trials, and industry stakeholders) agreed the current permit system works well for routine jobs but is more challenging for high-volume, short duration works. Promoters viewed it as rigid and inconsistently applied, seeing flexi-permits as a way to streamline delivery. However, LHAs, raised concerns about reduced oversight and co-ordination challenges using flexi-permits, and the two LHAs that participated in the previous industry-led trials did not observe meaningful improvements in delivery. It should be noted that this feedback reflects only a small sample of previous trial experiences, given that trials were conducted in at least nine LHAs. All groups emphasised that successful flexi-permit use depends on strong planning, clear boundaries, and robust digital systems.

It is important to view the findings identified above in light of the caveats identified in section 2.5. Specifically, caution should be taken in extrapolating the findings of this trial to contexts and situations beyond which the trial has encountered due to:

- the limited sample size of the trial (two participating LHAs, three participating promoters and 18 flexi-permits in total).

- the potential for selection bias to skew the results.
- the untested aspects of flexi-permits (i.e., the implementation and outcomes of flexi-permits in a scenario where participants are not running parallel systems with the existing legislative framework).
- the timing of the trial (as such, implementation and outcomes may not reflect actual experience of delivery in winter operations, embargo periods or seasonal demand impacts).

6.2 Recommendations

The caveats associated with the findings of this trial mean that **this evaluation is not able to make a definitive recommendation either in favour of or against proceeding with flexi-permit legislation**. However, stakeholder feedback has highlighted some core fundamentals that are recommended for consideration as part of any future iteration of flexi-permits, namely:

- early engagement and collaboration between LHAs and promoters, with detailed delivery plans (with dates and co-ordination checks) remaining mandatory. Early-stage coordination is likely to support management of street works more widely, and so should be considered beyond the use of flexi-permits.
- provision of a concise summary of flexi-permit parameters to promoters, to aid transparency and to support compliance.
- digital integration and streamlining of systems and processes (see technology solutions below), thereby avoiding manual workarounds (developing and updating an Excel spreadsheet and providing email updates) used within the trial.
- daily updates and standardised whereabouts reporting to support transparency.
- robust compliance controls to preserve public safety, quality assurance, and accountability.
- provision of the ability to update the status of individual streets within the overarching flexi-permit. Being able to close off unique USRNs within the flexi-permit would improve accuracy of inspection co-ordination, network management, monitoring and reporting.
- consistent metrics and monitoring protocols to track administrative savings, delivery efficiency, and network impacts over time.
- provision of a clear framework that defines and presents the parameters of a flexi-permit, to aid decision-makers within LHAs.
- system induction to ensure compliance before flexi-permits are deployed. This would be particularly beneficial for some of the newer sectors engaged in street works (for example fibre or EV companies) who have less experience and knowledge of the relevant street works legislation.

There are aspects of flexi-permits that have not been tested as part of this trial which would require significant consideration if the implementation of flexi-permits was to be considered:

- **technology solutions:** Street Manager would need to be adapted to allow for flexi-permits. This would include consideration of how to provide functionality and auditing for reinstatements, inspections and offences for individual works within the broader flexi-permit. Real-time data sharing tools would need to be integrated for improved visibility, progress updates, and compliance monitoring.
- **fee charges:** if individual permits were to be replaced by a single flexi-permit, the fee associated with the permit (and calculation of the fee level) would need to be designed to ensure minimal loss of revenue for LHAs.

Appendix 1A: Trial Design

This appendix presents the final version of the trial design, as presented to participants in January 2025.

Design Challenges

The core challenge for this trial is to create an environment to test the concept of a flexi-permit on real works carried out in the real world, whilst maintaining compliance with the current legislative framework. There are several practical and legislative challenges that have a direct influence on the design and approach, namely:

- the requirement to comply with the current legislative framework results in the need for trial participants to “run a parallel system” in which both a flexi-permit approach is adopted, and the **current individual permits continue to be submitted**. For the duration of the trial, this will result in an increased administrative burden for participating promoters and LHAs. However, it is noted that **this would not be the approach adopted for a future flexi-permit scheme**, if it were to be implemented (i.e., in a future flexi-permit scheme, new legislation would complement and replace the existing guidance in relation to individual permits, removing the need to run a “parallel system”); and
- the functionality to create a flexi-permit does not currently exist within Street Manager. In previous trials, LHAs and promoters have used alternative approaches to record a flexi-permit, however, this does not provide an opportunity to test Street Manager’s ability to accept and process a flexi-permit. As such, **this technical element will remain untested**.

Concept and Principles

A “programme of work” may involve a period of perhaps a month, require considerable works planning on the part of the promoter, co-ordination and planning from the LHA, and, within the current permit system, it would require several permits to be submitted to Street Manager. The types of work that require a permit and involve delivery across multiple phases could include, but are not limited to, cyclical routine highway maintenance work, or the installation of new utility assets such as telecoms connections to multiple properties across an area or for an infrastructure upgrade.

It is suggested that a programme of work of this nature may be suitable for submission as a flexi-permit.

Key principles, which have been agreed with DSIT and DfT, that directly influence the design of the trial are outlined below:

- the trial will involve real works on real streets;
- the trial will run **from 17 February 2025 to 18 July 2025 (22 weeks)**. A programme of work must be started and completed within the trial period for it to be included;
- to be eligible for inclusion in this trial, other ongoing trials will need to align with this trial design. Evidence gathered from other trials will be noted within the evaluation;
- an explicit flexi-permit has not been added to Street Manager, but trialists are free to use other ways of logging bulk information on multiple permits that best work for them;
- legislation will remain unchanged during the trial; however, works can start as and when, either through an early start, for example phone call on the day, or with a retrospective permit application (treated as an Immediate);

- participation in the trial is voluntary and any LHA or promoter can withdraw from the trial at any stage without negative consequence;
- fees for individual permits will remain during the trial period (i.e. works carried out through a flexi-permit in this trial will be subject to the individual fees related to their individual permits);
- a flexi-permit can include a combination of both specified works that require a permit (refer to section 7.3 of the code of practice for the co-ordination of street and road works) and works that do not require a permit (refer to sections 7.3.3 and 7.3.4 of the code of practice for the co-ordination of street and road works), for example optional permits, if they form part of the wider programme of works; and,
- an Authority can choose how many individual trial programmes they have within their area and how many are active across their network at a given time.

Considering the principles above, a single flexi-permit covering a programme of work **and** individual permits for each individual work will need to be created i.e., **individual permits for each work are still required to ensure compliance with the existing legislative framework.**

This is important in order to monitor compliance, inform local road users and residents about when works are taking place, and when completing the performance-based inspections regime.

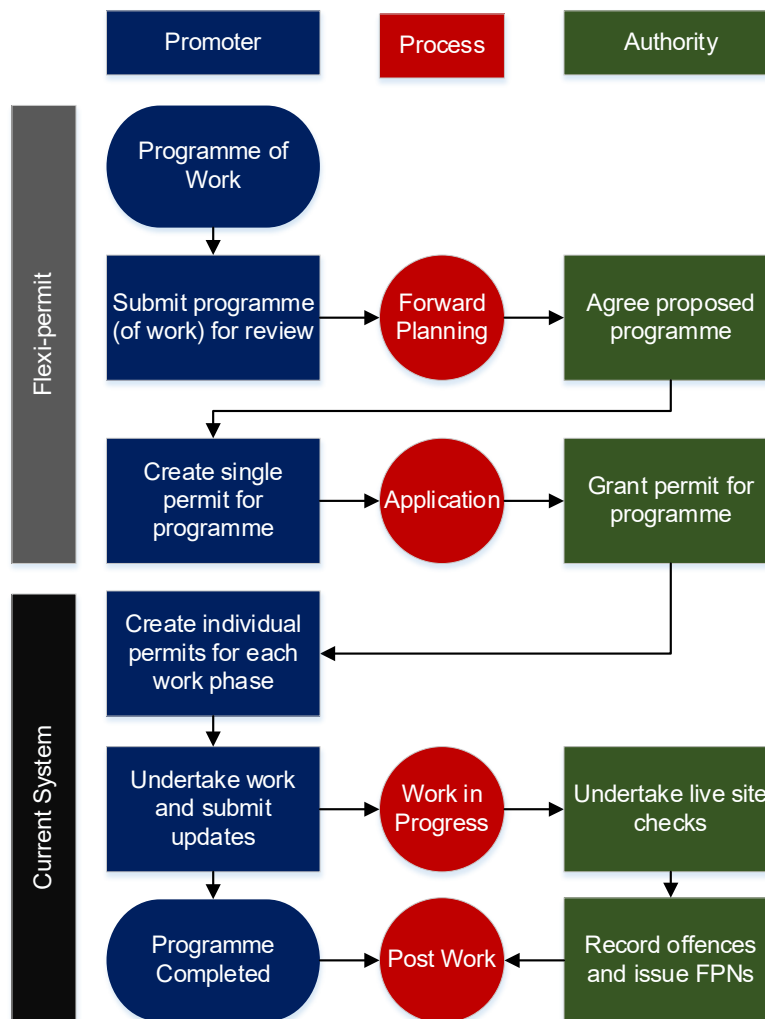
It is recognised that this approach will involve increased resource and administration for those taking part in the trial, however, consideration should be given to leniency within the existing framework, especially for offences and related fixed penalties, for example, for late submission of works start and stop notices, to reduce the burden of taking part in the trial.

The proposed design of the flexi-permit (and the minimum requirements for the individual permits) can be found in **Appendix 1B.**

Approach

Figure A1.1 provides a summary of the proposed approach. A detailed overview of the processes that underpin this approach can be found in **Appendix 1C.**

Figure A1.1: Proposed Trial Approach



Ideally, the single **flexi-permit** should be used as the primary permit for the planning, co-ordination and delivery of work. The **individual permits** for each work only need to contain the following core information to provide a sufficient record for the register and for effective publicity of planned and active work:

- location of work;
- proposed start and end dates;
- actual start and end dates;
- record of inspections;
- record of offences including section 74 overrun charges; and
- registration of reinstatement (as required).

Trial Parameters

Table A1.1 identifies the core parameters to be considered for the trial. Each parameter has an application which includes:

- **Mandatory:** this must apply with the defined parameters;

- **Flexible:** this must apply but the parameter may be adjusted; and
- **Optional:** this may apply if chosen.

Table A1.1: Parameters for Trial Works

Area	Application	Parameter
Activity Type	Flexible	Consider works that are remedial works or temporary to permanent reinstatements as part of the programme.
Boundary	Mandatory	The total extent of the work would be limited to the boundary of the participating LHA.
	Flexible	Limit the total extent of the work to a 2km boundary from the initial work phase (circumference). Consideration to be given to the geography of the area, such as, rural or urban, and construct, i.e., not all areas fit into a neat polygon.
Collaboration	Optional	Consider opportunities for collaboration with other promoters or organisation workstreams.
Duration	Flexible	Total duration of the programme is up to 30 working days. Duration of an individual phase of work is up to 10 working days.
Promoters	Mandatory	Includes “undertaker” and “highway authority”. Excludes organisations who are undertaking works by virtue of a licence under NRSWA Section 50 or the Highways Act Section 278, and other authorities.
Restrictions	Mandatory	Exclude streets where a restriction under NRSWA Section 58 and 58A is in force or will come into force during the trial.
Street Designation	Mandatory	Exclude streets with the following designations: protected and lane rental. Exclude streets with a reinstatement category of 0, 1 or 2.
Street Designation	Optional	Streets with the following designation: Special-engineering difficulties.
Street Designation	Optional	Streets with the following designation: Traffic-sensitive with consideration given to works being undertaken wholly outside of traffic sensitive timings.
Traffic Management	Optional	Exclude work requiring any form of positive traffic control or TTROs, except stop and go boards. Note that inclusion of some types of positive traffic control would require specific and timely permits to be submitted.
Work Category	Mandatory	Exclude Major and Immediate (Urgent and Emergency work).

Evaluation Requirements

Engagement with Evaluators

Initial Engagement

The online information session (Monday 4 November) will provide:

- a brief overview of flexi-permits and the trial design (as outlined above);
- an opportunity for questions and clarifications;
- outlining of the data requirements from LHAs and promoters; and

- roles and responsibilities during the trial.

The session will be recorded and circulated to participating LHAs and promoters for reference.

In the weeks following the online information session, the evaluators will engage directly with each participant via MS Teams. This will allow for a tailored discussion of how the trial will work in practice for each LHA, the data collection requirements and for capture of baseline data in relation to attitudes towards flexi-permits. For example, agreement of the flexible and optional parameters as identified above in Table 1.2. We will also use this as an opportunity to explore the likely characteristics of the trial for each LHA (for example discussing likely promoters and programmes of works that may come up during the trial period).

Ongoing Engagement

During the trial period, LHAs and promoters will be required to provide:

- sharing of copies of approved flexi-permits as they are approved by the LHA – format of this to be agreed;
- monthly data extracts from Street Manager; and
- opportunities for discussing and resolving specific issues and challenges in delivery of the trial (flexible, ad hoc meetings upon request by participants).

Post-Trial Engagement

Following completion of the trial, LHAs and promoters will be required to participate in primary research for the evaluation in relation to their experience. This may include, but not be limited to, an interview to highlight key learnings from the trial and to provide feedback on what works well or successes (up to one hour maximum), focus groups (up to one hour maximum), survey completion (up to 30 minutes maximum) and provision of secondary data where available for example, administrative costs to administer and manage the permits, resource (people), time for LHAs, customer enquiries.

This will be further discussed and agreed with LHAs in advance of the trials commencing.

Engagement between LHA and promoter

It is expected that, for each proposed programme of work to be considered through a flexi-permit, LHAs and promoters will, at a minimum, engage up to 10 working days in advance of submitting the flexi-permit for an initial discussion to review the proposed programme of work and agree any specific ways of working.

Summary of Roles and Responsibilities

The roles and responsibilities of stakeholders involved in the trial are outlined in Table A1.2.

Table A1.2: Roles and Responsibilities

Party	Roles and Responsibilities
Authority	The Authority was responsible for co-ordinating the programme of work within the trial, assigning conditions to works included in the flexi-permit as appropriate, providing monthly data extracts from Street Manager, collection of additional data as required and participating in primary data collection as required (i.e., survey and interviews). The LHA remained responsible for their existing responsibilities in relation to the current permit system (such as in relation to the individual permits that continued to be submitted, inspection.).
Promoter	The promoter was responsible for identifying and delivering a programme of work within the trial, updating the flexi-permit as appropriate, providing monthly data extracts from Street Manager, collection of additional data as required and participating in primary data collection activities as required (such as, surveys and interviews). The promoter remained responsible for their existing

Party	Roles and Responsibilities
	responsibilities in relation to the current permit system (such as. in relation to the individual permits that continued to be submitted, compliance).
DfT and DSIT	The role of the Departments was to oversee the trial to ensure the trial was delivered successfully. They were responsible for initial engagement with the LHAs and promoters to secure participation and for providing advice and guidance in relation to trial implementation (such as in response to clarification requests and issues). They will ultimately be responsible for progressing any recommendations emanating from the evaluation.
Evaluation team	The evaluation team was responsible for designing the trial parameters, initial and ongoing engagement with participants, primary data collection, monitoring data collection, addressing clarification requests and issues (in collaboration with DSIT and DfT) and undertaking wider data analysis during the trial.

Appendix 1B: Flexi-Permit Design

Flexi-Permit Content

The flexi-permit needs to contain the overarching information for the programme of work, together with specific information about each individual phase of work. Table A1.3 sets out the information required within the flexi-permit.

Table A1.3: Flexi-permit content

Area	Field	Data
Reference ID	Work reference number	System generated which can be overwritten by the user
	Permit reference number	System generated
Dates	Proposed start date	Based on the proposed start of the first work phase within the programme.
	Proposed end date	Based on the proposed end date of the final work phase within the programme.
	Early Start pre-approval	This can be entered as “No”
Location	USRN and co-ordinates	The USRN of the first phase of work and a polygon covering the entire programme of work.
	Location (footway, verge, carriageway).	All locations to be impacted can be selected.
	Location details (free text)	No input required.
Activity	Activity type	A relevant activity type for the programme can be chosen, such as “utility asset works” or “highway repair and maintenance works”.
	Attachment	The Programme of Work table should be attached to the permit.
	Excavation required	If any excavation is required within the programme this should be selected as “Yes”, otherwise “No”.
	Collaborative working	If any collaboration is planned within the programme this should be selected as Yes, otherwise “No”.
	Is lane rental applicable	This should always be selected as “No” as lane rental designated streets are excluded from the trial.
Traffic Management	Traffic management type	The most effective form of traffic management should be chosen for this field.
	Footway closure	If a footway closure is required for any work within the programme the appropriate option should be selected, otherwise “No”.
	Footpath closure	If a footpath closure is required for any work within the programme the appropriate option should be selected, otherwise “No”.
	Is TTRO required	This should always be selected as “No” as work with TTRO are excluded from the trial.

Area	Field	Data
Designations Impacted	Not applicable	These fields can be left blank as work on streets with a specific designation are excluded from the trial.
Applicable Conditions	Not applicable	No conditions are required on the permit, these will be detailed within the Programme of Work table.
Additional Information	Not applicable	Any specific information related to the programme of work can be added in this section.

Programme of Work

There is no functionality to delineate each individual phase within one permit, so this information must be recorded and updated via an attachment on the single flexi-permit. This attachment will contain a table (MS Excel worksheet) containing the following set out in Table A1.4.

Table A1.4: Individual Work Phase Information

Field	Content	Individual Permit
Phase Number	Each phase will be contained within a table row.	No
Work Status	Selected from a status of Planned, Completed and Cancelled	Yes (system generated)
Permit reference no.	A unique reference for the individual work.	Yes
Location	Text description for the location of the work.	Partial
Traffic Management	The traffic management for the work.	Partial
Permit conditions	Applied conditions and the parameters	No
Proposed Start Date	The proposed start date of work.	Yes
Proposed End Date	The proposed end date of work.	Yes
Actual Start Date	The actual start date and time of work.	Yes
Actual End Date	The actual end date and time of work.	Yes

Individual Permit(s)

Each individual permit within the programme of work will need to contain **minimum** data as per the Street Manager business rules. Table A1.5 sets out the fields required and the content of this data.

Table A1.5: Individual Permit Data Requirements

Area	Field	Data
Reference ID	Work reference number	System generated which can be overwritten by the user
	Permit reference number	System generated
Dates	Proposed start date	Based on the proposed start of the work.
	Proposed end date	Based on the proposed end date of the work.
	Early Start pre-approval	This can be entered as "No"
Location	USRN and co-ordinates	The USRN of work and a point, line or polygon for co-ordinates.

Area	Field	Data
	Location (footway, verge, carriageway).	All locations to be affected can be selected.
	Location details (free text)	No input required.
Activity	Activity type	A relevant activity type for the programme can be chosen, such as “utility asset works” or “highway repair and maintenance works”.
	Attachment	None required
	Excavation required	If any excavation is required within the programme this should be selected as “Yes”, otherwise “No”.
	Collaborative working	If any collaboration is planned within the programme this should be selected as Yes, otherwise “No”.
	Is lane rental applicable	This should always be selected as “No” as lane rental designated streets are excluded from the trial.
Traffic Management	Traffic management type	The relevant form of traffic management for the work.
	Footway closure	If a footway closure is required for any work within the programme the appropriate option should be selected, otherwise “No”.
	Footpath closure	If a footpath closure is required for any work within the programme the appropriate option should be selected, otherwise “No”.
	Is TTRO required	This should always be selected as “No” as work with TTRO are excluded from the trial.
Designations Impacted	Not applicable	These fields can be left blank as work on streets with a specific designation are excluded from the trial.
Applicable Conditions	Not applicable	Conditions are required on the individual permit; these will also be detailed within the Programme of Work table.
Additional Information	Not applicable	Any specific information related to the programme of work can be added in this section.

Appendix 1C: Trial Process

Table A1.6 sets out the core process for a flexi-permit trial, with comparison to the current system and a flexi-permit system. As outlined, the majority of the processes identified are common between both the current permit system and proposed flexi-permit trial system, which reflects the need to comply with existing legislation in relation to submitting individual permits. The key differences largely relate to Stage 1 (forward planning) in which processes that are **optional** in the current system would become **mandatory** in the flexi-permit system, with additional or new processes and outputs for the submission, review, approval and update of the flexi-permits.

Table A1.6: Process Overview

Stage	Step	Who	Process	Current System	Flexi-permit	Additional flexi-permit output
Stage 1 Forward Planning (non-statutory)	1.1	Promoter	Identifies a programme of work they want to include within the trial and has an initial discussion with the Authority.	Optional	Mandatory	Initial discussion on the programme of work, agreeing any specific ways of working.
	1.2	Authority	Provides input into the development of the programme delivery	Optional	Mandatory	
	1.3	Promoter	Submits the information required, as set out in the Programme of Work table, to the Authority either via Street Manager as a forward planning notice, through a third-party system or other method of communication, such as email. (refer to section 4.7 for details)	Optional	Mandatory	The programme of work is recorded within a system as forward planning information.
	1.4	Authority	Accepts the proposed programme or requests further changes (move back to step 1.3)	Optional	Mandatory	
	1.5	Authority	Provides an agreement in principle to the proposed programme.	Optional	Mandatory	The programme is effectively given "advanced authorisation".
Stage 2 Application	2.1	Promoter	The promoter submits a permit covering the programme of work.	Not applicable	Mandatory	A single flexi-permit for the programme is recorded in Street Manager
	2.2	Promoter	Submits individual permits for each work within the programme. Each work can start as and when, either through an early start (for example phone call on the day), or with a retrospective permit application (treated as an Immediate).	Mandatory	Mandatory	
	2.3	Authority	Grants the application(s) received or requests further changes (move back to step 2.1 and 2.2 if applicable).	Mandatory	Mandatory	Granted single flexi-permit covering the programme.

Stage	Step	Who	Process	Current System	Flexi-permit	Additional flexi-permit output
Stage 3 Work Delivery	3.1	Promoter	Submits a work start notice for the flexi-permit when the initial work phase commences.	Not applicable	Mandatory	
	3.2	Promoter	Submits an actual start notice for individual phases when work starts.	Mandatory	Mandatory	
	3.3	Authority	Undertakes a live site inspection if necessary and records a result on the individual permit for that work phase.	Mandatory (if appears in sample inspections list)	Mandatory	
	3.4	Authority	Records any offences committed by the promoter on the individual permit for that work phase.	Mandatory	Mandatory	
	3.5	Promoter	Submits a works closed notice for the individual permits upon completion of each work phase.	Mandatory	Mandatory	
	3.6	Promoter	Submits works closed notice for the flexi-permit upon completion of the work.	Not applicable	Mandatory	
Stage 4 Additional Work (during flexi- permit)	4.1	Promoter	Contacts the Authority to discuss additional work.	Optional	Mandatory	
	4.2	Promoter	Submits a permit application for the additional work	Mandatory	Mandatory	
	4.3	Authority	Grants the application(s) received or requests further changes (move back to step 4.1 and 4.2 if applicable).	Mandatory	Mandatory	
	4.4	Promoter	Updates flexi-permit with details of additional work	Not applicable	Mandatory	Flexi-permit updated.
Stage 5 Post-Work Delivery	5.1	Promoter	Submits a registration of reinstatement (as required) upon completion of each work.	Mandatory	Mandatory	
	5.2	Authority	Issues offences (as required).	Mandatory	Mandatory	

Appendix 2: Counterfactual Shortlisting Approach

This note provides further detail on the approach to identifying counterfactual LHAs to participate in the evaluation.

Method

Shortlisting potential counterfactual LHAs was based on a review of four statistics:

- Traffic per mile
 - Motor vehicle traffic (Mn vehicle miles) per Link length in miles by local authority 2022

Motor vehicle traffic data was obtained from the following source: Table TRA8903 - Motor vehicle traffic (vehicle miles) excluding trunk roads by local authority in England, annual from 1993 Source: [Road traffic estimates \(TRA\) - GOV.UK](#). Link length data was obtained from the following source: [Road length statistics \(RDL\) - GOV.UK](#).

- Works per mile
 - Total works (including all works types) per Link length in miles by local authority 2022
 - Only planned works have been included in the total work

Total works data was obtained from Street Manager. As above, link length data was obtained from: [Road length statistics \(RDL\) - GOV.UK](#).

- Delay on A roads
 - Average delay on locally managed 'A' roads: by local authority in England, 2020

The only indicator on delays) is the average delay on locally managed 'A' roads, Table CGN0502b: [Road congestion and travel time - GOV.UK](#). This indicator is used by the DfT in their Lane Rental Calculator to provide a factoring of typical cost of roadworks between local authorities, on the basis that authorities with higher congestion would incur a higher social cost per works event. The drawback is that this is only for major roads, and our focus on the appropriate works types for flexi-permitting may err towards minor road work events.

- Percentage of rural roads
 - Sum of principal rural A roads, rural B roads, Rural C and U Roads per the sum of total major roads and total minor roads

Data on road types was obtained from: [Road length statistics \(RDL\) - GOV.UK](#).

Each of the above measures was subsequently **converted to a 'score' from 0 to 1**, based on the LHA metric value **relative to the highest LHA metric value** i.e., a relative score against the 'top' authority in each classification. In addition, a **composite metric** was calculated using a straight average of the 'scores' for each authority under the four classification metrics (above).

Following this shortlisting exercise, potential Counterfactual LHAs for both participants were identified and circulated with the Flexi Permit Steering Group for review.

Appendix 3: Additional Permit Analysis

Table A3.1 presents a summary of the flexi-permits submitted during the trial.

Table A3.1: Flexi-permits submitted

LHA	Promoter	Programme or Works Ref.	Location and context	Start	End
Durham	LHA internal	UG102FLEXICLSPER MIT1	Front Street, Chester-le-Street – small asset install (fingerposts and signs)	17-Feb	07-Mar
Durham	LHA internal	UG102FLEXICLSPER MIT2	South Burns, Chester-le-Street – small asset install (monoliths)	31-Mar	01-Apr
Durham	Nexfibre (VM)	N7110NBU706352-FLEX1J	Scripton Gill Road – telecoms (duct and boxes), short job	14-Apr	16-Apr
Durham	LHA internal	UG103FLEXIFST2526-SITE5	Myrtle Grove, Durham – footway surface treatment	08-May	21-May
Durham	LHA internal	UG103FLEXIFST2526-SITE10	Stead Close – footway surface treatment	19-May	02-Jun
Durham	Nexfibre (VM)	N7110NBU706352-FLEX1	Scripton Gill Road, Durham – telecoms (duct and boxes)	11-Apr	28-May
Durham	Nexfibre (VM)	N7110NBU706352-FLEX1-A	Alder Park – telecoms (major duct length)	16-Apr	08-May
Durham	Nexfibre (VM)	N7110NBU706352-FLEX1J	Scripton Gill Road, Durham – telecoms (CAB base dig-down)	07-May	09-May
Durham	Nexfibre (VM)	N7110NBU706353-FLEX2	Fir Avenue – telecoms (duct and boxes)	19-May	05-Jun
Durham	Nexfibre (VM)	N7110NBU706354-FLEX3-C	The Riggs – telecoms (short job)	05-Jun	10-Jun
Durham	LHA internal	UG103FLEXIFST2526-SITE11	Malham Crescent – footway surface treatment	23-May	06-Jun
Durham	LHA internal	UG103FLEXIFST2526-SITE20	Farnham Road – footway surface treatment	11-Jun	24-Jun
Durham	LHA internal	UG103FLEXIFST2526-SITE21	Wharrier Square – footway surface treatment	18-Jun	10-Jul
Durham	LHA internal	UG103FLEXIFST2526-SITE26	Adolphus Street West – footway surface treatment	17-Jul	30-Jul
Durham	LHA internal	UG103FLEXIFST2526-SITE32	Parkside – footway surface treatment	02-Jun	13-Jun
Durham	LHA internal	UG103FLEXIFST2526-SITE4	Windermere Drive – footway surface treatment	27-May	28-Aug
Lincolnshire	LHA internal	GS3084412359120250307000	Silver St (Coningsby) – footway surface treatment	06-May	19-May

LHA	Promoter	Programme or Works Ref.	Location and context	Start	End
Lincolnshire	LHA internal	GS3084412358120250 306000	Holmes Way (Horncastle) – footway surface treatment	01-Apr	16-May

Appendix 4: Evaluation Design (March 2025)

This section presents the Theory of Change and Contribution Analysis frameworks as presented in the Phase 1 report, dated March 2025.

A **Theory of Change (ToC)** is a tool that illustrates how inputs, activities and context are expected to interact to drive outputs, outcomes and ultimately, effects, in line with scheme objectives. ToCs are useful to help understand the complexities of an intervention and support analysing its effectiveness. In identifying the changes expected as a result of a specific intervention, they aid the identification of indicators to monitor change, as well as remaining data gaps which will need to be filled through primary research. They also provide a structure for data analysis and reporting, helping research activity to ultimately answer evaluation questions.

ToCs are often **presented visually** as a flow diagram, structured around six core headings (as defined below), and accompanied by detailed assumptions:

- **Context:** the wider policy and market factors that are likely to have a bearing on how the trial operates, either enabling or constraining its achievement of impacts;
- **Inputs:** the resources of various stakeholders that are required to come together for the trial to operate as intended;
- **Activities:** the actions of various stakeholders undertaken as a result of the trial design and in response to inputs;
- **Outputs:** all the immediate results that occur as a direct product of trial activities;
- **Outcomes:** the short to medium term results emanating from outputs, which includes intended and unintended changes that stakeholders experience; and
- **Impacts:** the long-term results that are derived from outcomes. These capture the final intended change which provided the intervention's rationale.

Flexi-Permit Theory of Change

Three workshops were conducted during Phase 1 of the project with the DSIT and DfT Project Steering Group to map key ToC components, test key assumptions and to refine the '**final for now**' Theory of Change (Figure A4.1).

Central to the ToC development is the articulation of **assumptions** that are made about the expected causal linkages, and the **risks** associated with specific linkages which, if they transpire, will result in causal pathways not occurring as expected. The ToC includes assumptions for all causal pathways in the diagram, which have been numbered to allow easy cross-referencing, as well as a set of risks that apply at relevant points in the causal chains.

The bullet points below provide a summary of the key assumptions related to the ToC.

Key assumptions regarding the set-up of the trial are:

- DfT and DSIT trial guidance and RSM and fieldwork (desk review and stakeholder interviews), are used to develop a workable operational framework for LHAs and promoters to participate in the trial;
- LHAs and promoters agree to participate following the mobilisation period;
- LHAs are prepared to allocate additional staff time for reviewing flexi-permit applications;

- Promoters commit time for creating and submitting flexi-permit applications, anticipating future administrative savings and efficiency gains compared to working with numerous minor and standard permits (i.e., noting that this will still be required in the short-term, but not in the long term if the policy is implemented);
- Promoters develop delivery plans to establish an optimal strategy and mitigate risks early on. They are required to submit these plans to the LHA in advance of the flexi-permit application; and
- Promoters have sufficient volume of eligible planned works within close proximity (geography and timing) to enable the designing of a programme of works.

Key assumptions regarding the outcomes and effects of the trial are:

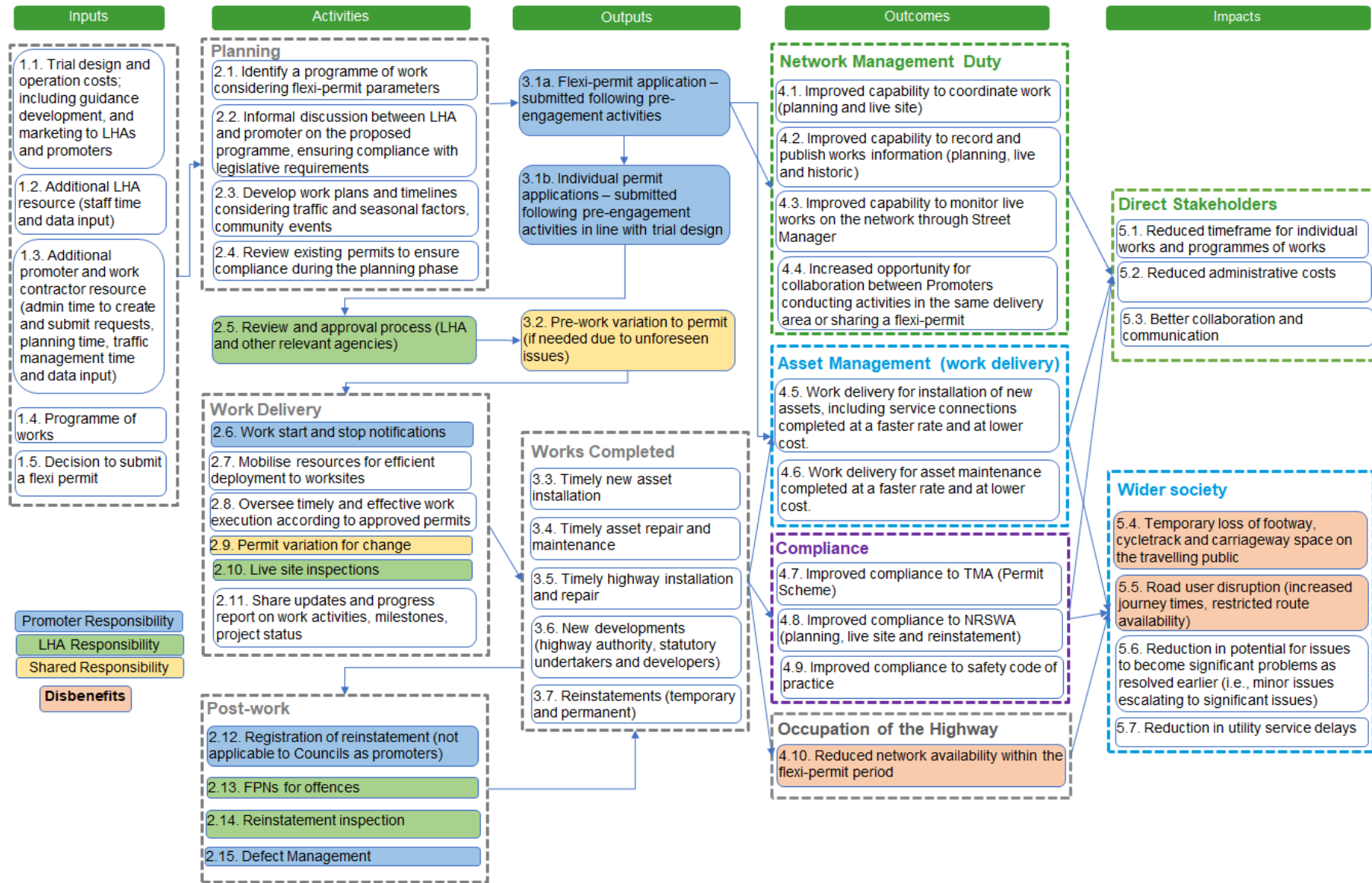
- Promoters can move to progress work on another street in the face of an 'on-the-day' barrier and mobilise a support team to address this barrier in the meantime if necessary;
- Promoters progress works at a faster pace and with less disruption than if individual permits were used as per the current system;
- Traffic management up to and including footway closures and give and take is used for the safety of workers and the public;
- Overall efficiency gains result from better co-ordinated work phases, increased promoter flexibility, and fewer bureaucratic delays;
- Promoters and LHAs would have lower volumes of permits to process and manage, thereby creating efficiencies (i.e., noting that this will still be required in the short-term, but not in the long term if the policy is approved or implemented); and
- Promoters working within the same area recognise efficiency gains to be realised from cooperating.

Key risks regarding the activities and outputs of the trial, as well as mitigating actions, are:

- Some LHAs may be reluctant to relinquish control of each individual work and be too hands-on as a result (for example inspecting sites excessively). It is expected that this will be mitigated through initial meetings between LHAs and promoters that will establish working arrangements, including frequency of inspections;
- LHAs may be disinclined to approve applications from some promoters, due to historic compliance records. It is expected that this risk will be mitigated by the hypothesis (included in our ToC) that flexi-permits could help to improve promoter compliance, which will be communicated to LHAs beforehand;
- With promoters having discretion to co-ordinate work phases across numerous streets, there is a loss of overall LHA oversight and control. This will be mitigated by regular meetings, sharing of progress and project status and inspections from the LHA to ensure sufficient oversight and control is maintained;
- With numerous work phases being co-ordinated across the delivery space, management and delivery standards of each individual phase could decline. As above, regular meetings, sharing of progress and project status and LHA inspections will help to ensure works are being delivered to required standards;
- Given the complexity of overall activity under a flexi-permit (number of work phases and number of streets covered), delivery deadlines could be more challenging to meet. It is assumed that flexi-permits will increase the speed of street works delivery, which would help overcome this risk, however, this assumption will be tested by the trial and evaluation;
- With numerous work phases being carried out across the delivery space and promoters potentially moving around each other frequently, careful inspection will be needed to ensure adequate safety measures are always in place. As above, this will be mitigated by regular and careful LHA inspection;

- Road space could be overbooked, increasing the level of disruption caused. It is expected that upfront delivery plans will assist LHAs with high-level management of road space, mitigating the risk of overbooking. Additionally, it is expected that the role of flexi-permits in enabling promoters to move between streets in the event of disruption and delays, will help to alleviate the risk of overcrowding on a street.

Figure A4.1: Theory of Change for the flexi-permit trial



Contribution Analysis (CA) Framework

To support the CA that will structure our synthesis of evidence, a set of **draft contribution claims** have been developed from the ToC. Contribution claims include:

- a causal hypothesis (of how the evaluation outcomes will be achieved through the programme);
- a counterhypothesis (providing an alternative explanation of how outcomes may be achieved);
- the evidence that is expected to be seen if the causal hypothesis is true and the associated evidence sources; and
- the aspect of the theory of change that the particular contribution claim links to.

Following the evidence gathering phase of our evaluation (i.e. desk based and primary research, refer to Chapter 6), as part of the CA activities, RSM will synthesise evidence relating to specific contribution claims, and will weigh the various pieces of evidence to make a judgement on: the plausibility of causal hypotheses (i.e., did expected changes occur); whether alternative hypotheses provide a more compelling explanation for the outcomes and effects identified (i.e., could this be explained by another factor, process, or event); and whether causal hypotheses reflect how consequences have occurred in reality (i.e., does the evidence support the claim). Following this exercise contribution claims will be refined.

As such, the set of contribution claims will **remain live** throughout the evaluation, and as evidence is gathered from evaluation activities and RSM's understanding of how the programme works in practice grows, consideration will be made to adding additional contribution claims as required.

The contribution claims, in their current form, are presented in Table A4.1.

Table A4.1: Contribution Claims

Contribution Claim	Causal Hypothesis	Counterhypothesis	Expected Evidence	Links to ToC
CC1: The implementation of the trial will contribute to an improved capability to co-ordinate work among stakeholders and greater visibility of planned works.	The trial will enhance communication and co-ordination through structured site meetings, application reviews, and collaborative planning efforts (not currently a mandatory feature of the permit system). The trial will also encourage greater visibility of works through identification of non-permit works in the prior planning stage. This will result in better co-ordination and visibility for	Communication and co-ordination may be enhanced by other contextual factors that fall outside the trial for example, changes in staff or leadership, more efficient use of the current system (as discussed in Section 3.3).	Feedback from stakeholders on the effectiveness of communication and co-ordination during the trial, and whether it improved or not. LHA and promoter data in relation to planning and co-ordination meetings, information sharing, documented agreements between participating parties and complaints received from the public, records of resolved conflicts and delays during the trial period. Feedback from non-participating promoters working within the participating	Inputs: Resources allocated for trial design, operation costs, and additional LHA and Promoter resources. Activities: Site meetings, forward planning, application reviews and approval. Outputs: Co-ordinated work plans, documented conflict resolutions. Impacts: Better collaboration and improved co-ordination

Contribution Claim	Causal Hypothesis	Counterhypothesis	Expected Evidence	Links to ToC
	<p>stakeholders, with fewer conflicts, which can be measured through stakeholder feedback and documentation of resolved issues.</p>		<p>LHAs on communication and co-ordination with participating promoters. Street Manager data in relation to permits amended or cancelled.</p>	
<p>CC2: The trial will contribute to more efficient use of resources and work delivery for participating LHAs and promoters.</p>	<p>The trial will streamline work delivery processes through efficient resource allocation (enabled by the flexi-permit approach to a programme of work), comprehensive site meetings and improved permit co-ordination procedures (not currently a mandatory feature of the permit system). This will lead to more efficient work delivery for both promoters and LHAs, measurable through comparisons of resource usage and project timelines.</p>	<p>The efficiency use of resources and work delivery may be enhanced by external factors, including changes in the type of works being delivered, more efficient use of the current system (as discussed in section 3.3) and changes to LHA and promoter personnel and ways of working.</p>	<p>Comparative analysis of resource allocation and project timelines before and after the trial. Feedback from stakeholders on the efficiency or otherwise of work delivery during the trial. Street Manager data in relation to work delivery. LHA and promoter data in relation to THP over a given time period (compared to pre-trial baselines).</p>	<p>Inputs: Allocation of resources for trial design, operation costs, and additional resources for LHAs and promoters. Activities: Site meetings, permit applications, and stakeholder communication. Outputs: New assets installations completed on time. Impacts: more efficient work delivery for installing new assets, reduced cost and project timelines.</p>
<p>CC3: The trial will contribute to increased road user disruption, leading to increased journey times and restricted route availability.</p>	<p>The implementation of the trial scheme may lead to increased road user disruption due to higher construction activity and co-ordination challenges. This can be measured by analysing traffic flow data and road user feedback during the trial period.</p>	<p>Road user disruption may occur as a result of external factors such as the volume and frequency of emergency works within trial areas, issues and changes within the public transportation system and increased traffic as a result of one-of incidents (such as major events or traffic collisions).</p>	<p>Traffic flow data comparing journey times and route accessibility before and during the trial. Feedback from road users on their experiences during the trial period as provided through complaints submitted to the relevant LHA and promoter.</p>	<p>Inputs: resources allocated for trial design, operation costs, and additional resources for stakeholders. Activities: site meetings, permit applications, and communication efforts, which may unintentionally lead to increased disruption. Outputs: works completed. Outcomes: Reduced network availability within the flexi-permit period. Impacts: Road user disruption: increased journey times, restricted route availability.</p>

Evaluation Questions

Table A4.2 details the **process and impact evaluation questions** that this evaluation will seek to answer. In this scoping stage, the evaluation questions, as presented with the Terms of Reference for the evaluation, have been reviewed for coverage, duplication, and feasibility, and updated accordingly. The updated list (including any changes made) is included in the tables below. For each **Evaluation Question**, a summary of the data collection approach and the analytical methods is presented. The subsequent sections of this report provide further detail on how the data collection and analysis activities will be delivered.

Table A4.2: Process and Impact Evaluation Questions

#	Original Question	Change and Rationale	Evidence collection and research activities (refer to section 6 for further detail)	Analysis
PEQ1	How have flexi-permits been implemented and operated in practice?	Reworded to: "How has the flexi-permit trial been implemented and operated in practice?"	Interviews; survey	Thematic analysis; survey analysis
PEQ2	How effective and efficient has delivery been?	Reworded to: "How effective and efficient has delivery of works been?"	Interviews; street manager data; survey	Thematic analysis; descriptive data analysis; survey analysis
PEQ3	How could future rollout be improved?	Reword to: "Are there any areas of improvement that could be considered for the design of the flexi-permit process? For example, time, type of work, type of street."	Interviews; focus groups	Thematic analysis
PEQ4	How do they compare with existing permits? Do they address or solve the issues and problems identified with the current system (as per section 3)?	Reworded to: "How does the flexi-permit process compare with existing permit process?" to remove the leading second question	Interviews; Street Manager data; public satisfaction survey	Thematic analysis; data analysis; survey analysis
PEQ5	How many flexi-permit vs. permit applications were submitted? <ul style="list-style-type: none"> By type of activity (minor, standard)? Number of amendments or change requests required in order for the flexi-permit to be approved? Number of early start requests for permits? 	Reworded to: <ul style="list-style-type: none"> How many flexi-permit vs. permit applications were submitted? By type of activity (minor, standard) Number of amendments or change requests required in order for the permit to be approved 	Street Manager data	Descriptive data analysis

#	Original Question	Change and Rationale	Evidence collection and research activities (refer to section 6 for further detail)	Analysis
	<ul style="list-style-type: none"> Number refused? Why? Number cancelled after approval? Why? 	<ul style="list-style-type: none"> Number of early start requests submitted for permits Number of permits that were refused and the reasons for refusal Number of permits cancelled after approval and the reasons for cancellations 		
PEQ6	How many change requests were required during the flexi-permit trial (any deviations from work originally proposed and permitted) vs. permits?	Reworded to: "How many change requests were required during the flexi-permit trial (any deviations from work originally proposed and permitted) vs. permits? What were the perceived reasons for this"	Street Manager data	Descriptive data analysis
PEQ7	Did the LHAs still get up to date information for network management purposes on when and where works were taking place? Was it better or worse from a network management perspective?	Reworded to: "How does the timeliness and quality of the information LHAs received in relation to network management compare to a traditional permit system?"	Interviews; Street Manager data; Complaints data (LHA and promoter)	Thematic analysis; descriptive data analysis
PEQ8	<p>Was it possible to complete category A inspections during the works?</p> <ul style="list-style-type: none"> Comparison with existing permits? <p>If there were issues, were they resolved, and if so, how? Were any issues not able to be resolved, and if so, why?</p>	<p>Moved from IEQ and reworded to remove closed question.</p> <p>"What was the effect of flexi-permits on category A inspections in comparison to existing permits? If there were issues, were they resolved, and if so, how? Were any issues not able to be resolved, and if so, why?"</p>	Street Manager data; interviews	Data analysis; thematic analysis.
IEQ1	What are the impacts of flexi-permits on the rollout of gigabit-capable broadband?	Reworded to: " To what extent do the results from the trials indicate that flexi-permits could have an impact on the rollout of gigabit-capable broadband? "	Street Manager data; interviews; promoter data (THP in a given timeframe, number of blockages cleared, contractor cost)	Data analysis; thematic analysis; QEA
IEQ2	To what extent have flexi-permits impacted the administrative burden on LHAs, compared to before they were introduced?	No change	Interviews; Street Manager data; LHA and promoter CRM system data	Thematic analysis; data analysis; QEA

#	Original Question	Change and Rationale	Evidence collection and research activities (refer to section 6 for further detail)	Analysis
	<ul style="list-style-type: none"> Total time spent on each flexi-permit for both applicant and LHA – including initial planning and any discussions? How does this compare to time spent on equivalent one permit per street? 			
IEQ3	<p>What are the impacts of flexi-permits on telecoms and utilities companies' engagement with LHAs?</p> <ul style="list-style-type: none"> Does the level of engagement differ between the flexi-permit and traditional permit system? If so, how? And why? What is the experience of LHAs working with telecoms and utilities companies for flexi-permits vs. permits? 	Moved from Process Evaluation Questions	Interviews; Focus Groups; Survey	Thematic analysis; Survey analysis
IEQ4	What are the impacts of flexi-permits on the duration of street works included in the flexi-permit? How does this compare with street works duration of an equivalent number of permits under existing rules?	No change	Street Manager data	Data analysis; QEA
IEQ5	<p>What are the impacts of flexi-permits on compliance?</p> <ul style="list-style-type: none"> Compliance with permit conditions Submission of works start and stop notices Working outside of the polygon? Working outside of the permitted timeframe? Failing to register reinstatement of the road? Quality of reinstatement 	No change	Street Manager data; interviews	Data analysis; QEA; thematic analysis
IEQ6	<p>Was it possible to complete category A inspections during the works?</p> <ul style="list-style-type: none"> Comparison with existing permits? 	Moved to Process Evaluation Questions, PEQ8 (as this question pertains to an assessment of process) and reworded	Not applicable	Not applicable

#	Original Question	Change and Rationale	Evidence collection and research activities (refer to section 6 for further detail)	Analysis
	<ul style="list-style-type: none"> If there were issues, were they resolved, and if so, how? Were any issues not able to be resolved, and if so, why? 			
IEQ6	What are the impacts, if any, on other promoters wanting to work in that area at the same time?	No change	Street Manager data; interviews	Data analysis, thematic analysis; QEA
IEQ7	<p>What is the impact of flexi-permits on other issues?</p> <ul style="list-style-type: none"> Congestion? Public perception? Complaints? Those with protected characteristics? 	Reworded to: “What’s the impact of flexi-permits on the general public in relation to: congestion; public perception; complaints; and those with protected characteristics?”	LHA and promoter CRM system data; INRIX data; LHA traffic data; traffic flow data; interviews.	Data analysis; survey analysis; QEA; thematic analysis.
IEQ8	What are the impacts of flexi-permits on LHA works (street lighting upgrades, surface dressing, pothole repairs)?	No change	Street Manager data; interviews	Data analysis; thematic analysis; QEA
IEQ9	What are the attitudes towards flexi-permits among LHAs and utilities? Have they changed since the launch of flexi-permits?	No change	Interviews (including baseline assessment at the recruitment stage); focus groups	Thematic analysis
IEQ10	Were there any unintended outcomes and impacts from the implementation of flexi-permits?	Reworded to: “Were there any unintended outcomes and impacts from the implementation of flexi-permits? What were these and why did they occur?”	Interviews; focus groups	Thematic analysis

A limitation of the trial design (in which both the flexi-permit and existing one permit to USRN system will run in parallel) is that the evidence in relation to IEQ2: ‘To what extent have flexi-permits impacted the administrative burden on LHAs, compared to before they were introduced?’ will largely be limited to a subjective qualitative assessment by participating LHAs (i.e., a true assessment of administrative burden will not be possible due to a bias created by prior knowledge obtained by LHA staff in reviewing either the flexi-permit or individual permits).

Appendix 5: Quasi-Experimental Analysis

The original contribution claim

The original Contribution Claim 3 was that the trial would contribute to increased road user disruption, leading to increased journey times and restricted route availability. This claim can be analysed using traffic journey time data.

However, road user disruption may occur for reasons not linked to the trial. The trial is a natural experiment, and it is not possible either to randomise the selection of individual trials to study, or to control for other variables that may affect disruption. The quasi-experimental analysis allows for a comparison of journey times with what may have happened in the absence of the trial.

There are two parts to the analysis of journey times. The first is based on Impact Evaluation Question 4 ‘What are the impacts of flexi-permits on the duration of street works included in the flexi-permit? How does this compare with street works duration of an equivalent number of permits under existing rules?’ The second part of the analysis is based on Impact Evaluation Question 7 ‘What is the impact of flexi-permits on the general public in relation to: congestion, public perception; complaints; and those with protected characteristics?’

Many telecommunications works are in the footway rather than the carriageway. Hence, it is expected that there may be limited difference in motor traffic journey times resulting from works.

Design

Of primary interest is the duration of roadworks. Any changes in duration may lead to the secondary outcome of a change in journey times. A difference-in-differences design allows for the identification of change in an outcome (duration of roadworks and journey times) between an intervention group (roadworks with flexi-permits) and a control group. A difference-in-differences with fixed effects approach was selected as it is the highest-ranking feasible approach on the Maryland Scientific Methods Scale (at level 3). In this case the difference in journey time between the ‘with roadworks and without roadworks’ is being compared for the two different roadworks scenarios of ‘with flexi-permits and without flexi-permits’.

On the basis that there may be a variability in the number of days of roadworks in place between ‘with flexi-permits’ and ‘without flexi-permits’, there may be up to four outcomes as follows:

1. no effect of flexi-permitting on either duration of roadworks or journey times.
2. no change in duration of roadworks, but a change in journey times.
3. a difference in duration of roadworks, but no difference in journey times.
4. a difference in duration of roadworks and a difference in journey times.

The first difference is the estimate of change in the outcome variable (journey times) with and without roadworks for the intervention group. The second difference is the same estimation of difference in journey times for the control group. The difference-in-differences is the subtraction of the second difference from the first difference.

It may be, for the first difference, that there is no significant difference between journey times with flexi-permits and without roadworks. If so, then the effect of roadworks of the type proposed for flexi-permits is so small as to be indiscernible. There would be no need to test the case for the second difference, and any difference-in-differences. (This is in fact what was found on the basis of the journey times.)

Method

Duration of roadworks

A permit-level dataset was extracted from Street Manager by joining permit, permit version, work, section 74, inspection, and reinstatement tables on the Street Manager permit and work identifiers. Records were limited to the trial LHAs (Durham; Lincolnshire) and the April to July 2025 window; permits wholly outside this window were excluded. Flexi-permits were identified using the LHA trial flag (permit reference number). For each distinct permit id, a single record was created using (i) the earliest proposed and planned start observed across versions and (ii) the latest planned end associated with the decided and active version. Actual start and end dates were taken from the work table where these were given. Where multiple actual start and end dates existed, the earliest actual start and the latest actual end dates were used. Permits without both an actual start and actual end were retained for volume and mix descriptors but excluded from overrun and slippage calculations. As per trial rules, records that extended beyond 31 July were not used in the impact analysis; five such flexi programme windows were excluded.

Journey times

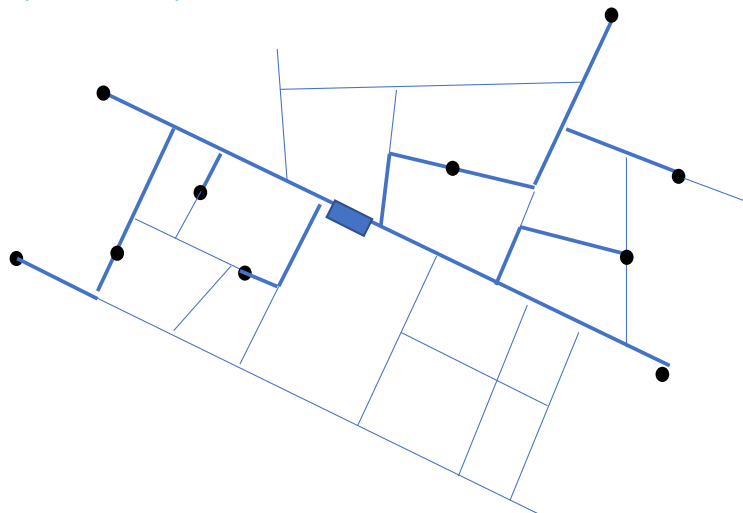
Roadworks may affect one link of the road network. However, journeys undertaken by the public will typically use many links in the network. Journey time data has been extracted from Google mapping data for the time periods with and without roadworks and for peak periods and non-peak periods.

The method for identifying routes over which journey times may be affected because of roadworks is as follows:

1. Randomly select a random point on the network as a journey origin within a crow-fly distance of 5 kilometres of the roadworks site.
2. Randomly select another point within a crow-fly distance of 5 kilometres.
3. Check whether the quickest path routing passes through the roadworks site.
4. If not, select a different origin and repeat steps 2 and 3 until the journey does pass through the roadworks site.
5. Extract the distance and journey time.
6. Repeat for 50 journeys.

Figure A5.1 shows a schematic diagram to illustrate five journeys (five origins and five destinations) either side of a roadworks site (shown as a rectangle). Emboldened lines are the routes taken.

Figure A5.1: Schematic map of random points routed via a roadworks site



Generating random points eliminates bias in point selection. Road network distances are approximately 10% greater than crow-fly distances, and so the method will create fifty journey distances of up to a possible maximum of just over 10 kilometres in distance.

Data has been extracted for journeys starting at 8am and 8.30am (peak), 10am and 2pm (off-peak), and 4.30pm and 5.30pm (peak).

Results

Description of the roadworks sites

Table A5.1 summarises the nature of the sites for which the journey times have been compared.

Table A5.1: Site Analysis

	Type of road	Promoter or sub-contractor	Type of works undertaken	Type of traffic management adopted	Duration of works
Durham					
Farnham Rd	Unclassified (local residential street)	Durham CC	Footway Surface Treatment	Give and take	10
Fir Ave	Unclassified (local residential street)	Nexfibre	Telecom Utility Installation	Give and take	11
Myrtle Grove	Unclassified (local residential street)	Durham CC	Footway Surface Treatment	Multi-way signals	10
Scripton Gill	Unclassified (local residential street)	Nexfibre	Telecom Utility Installation	Give and take	8
The Riggs	Unclassified (local residential street)	Nexfibre	Telecom Utility Installation	Give and take	4
Wharrier Sq.	Unclassified (local residential street)	Durham CC	Footway Surface Treatment	Give and take	10
Lincolnshire					
Holmes Way	Unclassified (local residential street)	Balfour Beatty	Footway Surface Treatment	Give and take	7
Silver St	Unclassified (local residential street)	Lincolnshire CC	Footway Surface Treatment	Stop and go	1

The eight sites selected span local residential streets with passive traffic management, principally give-and-take and stop and go, with one multi-way signals case. Promoters include LHA internal and term-contractor teams (Durham CC; Lincolnshire CC) and a telecoms company (Nexfibre). Reported durations are short and programmatic (1 to 11 days on-site per street), consistent with surface-treatment and fibre build activities that typically occupy the footway or lightly disrupt the carriageway. This composition aligns with the Phase 1 design assumption that many telecoms works occur off-carriageway and that any journey-time effects, if present, are most likely to arise from intermittent passive control rather than long, capacity-removing closures.

Duration of roadworks

Data from Street Manager relating to permit, permit-version, work, section 74, inspection and reinstatement tables was analysed to derive planned and actual duration for each distinct permit in the April to July 2025 window. For every record with both a planned start and stop and an actual start and stop, the following metrics were computed: (i) planned duration, (ii) actual duration, (iii) start delay, (iv) end slippage, and (v) an overrun flag where actual duration exceeded planned duration. Metrics are reported as means and medians, with overrun rates shown as the share of eligible permits where actual duration exceeded planned. Results are presented for the two participating LHAs combined and by area (Durham; Lincolnshire). Summary results appear in Table 3.5. The results showed there was no difference in duration of works between works undertaken as part of the flexi-trial and works undertaken without the trial.

Journey times

Table A5.2 presents aggregate mean journey speed both with and without flexi-permit roadworks for the two trial areas of Durham and Lincolnshire. The data is sub-divided into off-peak and peak. The mean journey distance for the selected sites in Durham is 1.52 km and for Lincolnshire 1.97 km.

Table A5.2: Aggregate mean journey speed with and without flexi-permit roadworks.

	Mean speed (km/h)	Standard deviation of speed	No. of journeys	S.D. of difference between population means	95%ile interval	Lower bound	Upper bound
Durham							
Off-peak							
With flexi-permit	34.6	12.4	300				
Without	36.2	12.0	300	0.994	1.948	-0.358	3.539
Peak							
With flexi-permit	35.7	12.1	300				
Without	36.8	12.8	300	1.108	1.994	-0.856	3.133
Lincolnshire							
Off-peak							
With flexi-permit	39.3	13.3	100				
Without	38.1	13.1	100	1.867	3.660	-4.860	2.459
Peak							
With flexi-permit	39.9	13.6	99				
Without	38.8	13.4	100	1.911	3.746	-4.813	2.678

Not every journey time will be the same and hence the data demonstrates a distribution in the individual journey time data points. The variability of data is measured by the standard deviation, which is a measure of the dispersion of the distribution from the mean. Estimating whether there is a difference between means uses this degree of spread of the data. The 95th percentile interval (the interval within which 95% of the observations are seen to have occurred) is usually used to define the boundaries when making decisions on whether differences between underlying population means have been observed. The null hypothesis is that there is no difference

between the means for the two samples. If the 95th percentile boundaries of the distribution of the observed differences includes a difference of zero, it is taken that there is no difference between the means.

In every case, the 95th percentile range for the difference between the mean speeds with and without the roadworks shows that the interval includes zero. Hence, the difference is not statistically significantly different from zero. Hence, no results show a significant difference in speed between the situations with roadworks and without roadworks.

On this basis, as noted in the study design, there is no need to test the case for the second difference, that is to say, the case without roadworks and the case with roadworks, but under current permitting regime. There is consequentially also no need to test any difference-in-differences.

Notwithstanding, it is interesting to understand variability at individual trial level. Table A5.3 presents mean journey speeds for the six sites in Durham and two sites in Lincolnshire.

Table A5.3 highlights that there are three cases where there is a statistically significant difference between the mean speeds with and without the roadworks: Farnham Road in the peak and the Off-peak (footway surface treatment with give and take traffic management), and Scripton Gill (telecom utility installation with give and take traffic management) in the peak. In each of these cases, the mean journey speed is less in the case with roadworks than without. It is worth noting in passing that in four cases (Myrtle Grove and Holmes Way in the peak and the off-peak) the mean speed without the roadworks is less than with the roadworks.

Taken as a whole, this more detailed data demonstrate a level, but not a great level, of natural variability in journey times between the two cases. Hence, there is support in this more detailed analysis for the overall finding of no significant difference in journey times between the case with roadworks and the case without roadworks.

It is now possible to state a revised contribution claim as follows: For passive traffic management on minor roads, there is no effect on journey times for motor traffic when flexi-permits are used as compared with the current permitting regime.

Table A5.3: Mean journey speed with and without flexi-permit roadworks for each site

		Mean Speed (km/h)	Standard deviation of speed	Number of journeys	Mean journey length (km)	S.D. of difference between population means	95%ile interval	Lower bound	Upper bound	
Durham										
Off-peak										
Farnham Rd					1.03					
	With flexi-permit	22.8	5.5	50						
	Without	29.2	7.8	50		1.349	2.643	3.760	9.046	
Fir Ave					1.20					
	With flexi-permit	25.3	6.6	50						
	Without	25.7	6.8	50		1.336	2.618	-2.252	2.985	
Myrtle Grove					1.30					
	With flexi-permit	34.7	10.1	50						
	Without	33.1	9.6	50		1.978	3.876	-5.509	2.243	
Scripton Gill					2.38					
	With flexi-permit	53.1	5.0	50						
	Without	53.4	3.8	50		0.886	1.736	-1.380	2.092	
The Riggs					1.23					
	With flexi-permit	35.0	5.2	50						
	Without	36.3	5.7	50		1.091	2.139	-0.850	3.427	
Wharrier Sq.					1.97					
	With flexi-permit	37.0	11.0	50						
	Without	39.8	11.7	50		2.274	4.457	-1.692	7.222	
Peak										
Farnham Rd					1.03					
	With flexi-permit	26.0	6.5	50						
	Without	28.9	7.7	50		1.430	2.804	0.175	5.783	
Fir Ave					1.20					
	With flexi-permit	24.7	6.4	50						
	Without	25.7	6.8	50		1.323	2.594	-1.621	3.567	

		Mean Speed (km/h)	Standard deviation of speed	Number of journeys	Mean journey length (km)	S.D. of difference between population means	95%ile interval	Lower bound	Upper bound
Myrtle Grove					1.30				
	With flexi-permit	36.2	10.9	50					
	Without	32.6	9.5	50		2.037	3.992	-7.623	0.362
Scripton Gill					2.38				
	With flexi-permit	52.5	4.4	50					
	Without	56.0	4.0	50		0.844	1.654	1.787	5.094
The Riggs					1.23				
	With flexi-permit	36.6	5.8	50					
	Without	36.8	6.0	50		1.184	2.320	-2.111	2.530
Wharrier Sq.					1.97				
	With flexi-permit	38.0	11.1	50					
	Without	40.9	12.4	50		2.347	4.600	-1.743	7.458
Lincolnshire									
Off-peak									
Holmes Way					2.46				
	With flexi-permit	42.8	16.4	50					
	Without	40.4	16.7	50		3.305	6.479	-8.870	4.087
Silver St					1.48				
	With flexi-permit	35.8	7.9	50					
	Without	35.8	7.7	50		1.567	3.072	-3.081	3.062
Peak									
Holmes Way					2.48				
	With flexi-permit	43.3	16.9	49					
	Without	41.4	17.0	50		3.409	6.681	-8.618	4.744
Silver St					1.48				
	With flexi-permit	36.5	8.0	50					
	Without	36.3	7.8	50		1.577	3.091	-3.358	2.825

Appendix 6: Contribution Analysis

Three contribution claims were developed to test the contribution of the Flexi Permit Trials. A causal hypothesis and an alternative hypothesis were developed for each contribution claim. The following sections present evidence in support of the hypotheses and an overall assessment of the strength of evidence supporting each contribution claim.

It is important to note that several outcomes observed during the trials (such as increased engagement between LHAs and promoters and sharing of delivery plans) are behavioural in nature and likely influenced by the trial context itself, particularly the heightened scrutiny and participants' awareness of being observed. Consequently, the evidence should be interpreted with caution, as these outcomes may not persist under routine conditions once the trial environment and its associated incentives are removed.

Additionally, the trials were deliberately scoped to include only programmes involving minor and standard works on non-traffic-sensitive streets (types 3 and 4), using passive traffic management measures. The contribution analysis compares experiences under the trials with those under the regular permit system for works meeting the same criteria. Findings should not be generalised to other types of works programmes, as different operational dynamics are likely to apply.

In September 2025, a workshop was held with representatives from RSM, Professor John Parkin, and DSIT to review emerging findings related to the contribution claims. Based on the evidence presented and subsequent discussion, the refinements below were made. See Table A4.1 for the Contribution Claims as originally developed at the evaluation design stage:

- Contribution Claim 1 (Causal Hypothesis): The final sentence was revised to remove the clause “*with fewer conflicts,*” as the trial did not yield sufficient evidence regarding impacts on conflicts between promoters and between promoters and LHAs across the highway network.
- Contribution Claim 2 (Alternative Hypothesis): The clause “*...and seasonality effects for works that are weather-dependent*” was added to reflect the influence of an additional contextual factor observed during one of the trials.

Contribution Claim 1: The implementation of the trial will contribute to an improved capability to co-ordinate work among stakeholders and greater visibility of planned works.

Causal Hypothesis

The trial will enhance communication and co-ordination through structured site meetings, application reviews, and collaborative planning efforts (not currently a mandatory feature of the planning system). The trial will also encourage greater visibility of works through identification of non-permit works in the prior planning stage. This will result in better co-ordination and visibility for stakeholders, which can be measured through stakeholder feedback and documentation of resolved issues.

Evidence from interviews with stakeholders including trial participants.

Trial #1: The LHA reported that they had better visibility of delivery plans than usual, due to greater promoter engagement and receipt of planning information upfront. This enabled better co-ordination during delivery and allowed the LHA to search for opportunities for collaboration on the network. “*We had improved information and visibility of what their plans were – what they were going to be doing and where. That was the main benefit*” (LHA). Promoter #1 agreed that the system encouraged greater co-ordination and planning with the LHA.

However, promoter #2 reported difficulty in obtaining real-time site information from their own sub-contractor, restricting co-ordination.

Trial #2: Both parties, LHA and promoter, reported that co-ordination and collaboration were effective, enabled by detailed upfront planning and co-ordination checks. *“The initial upfront planning took time but was helpful, because we didn’t have to revisit the permit during delivery”* (Promoter). During the works, promoters provided more detailed and frequent progress updates than are often provided, improving the LHA’s ability to carry out monitoring and inspections. Communications throughout delivery worked well, often entailing moderate updates in relation to the detailed plans agreed at the outset.

Stakeholders reported that few issues were encountered during the trials. One LHA noted that the trial contributed to this as they were able to keep on top of compliance by cross-examining the daily whereabouts updates against the initial conditions that were agreed at the planning stage. Stakeholders agreed that focusing the trials on non-traffic sensitive streets contributed to there being a low number of issues raised by the public.

One LHA reported that all works undertaken in their trial were permissible, meaning the impact of trial on visibility of non-permit works could not be tested in this example. However, in the other trial, the LHA reported that they had visibility of works that they would otherwise not be aware of, due to the detailed planning and information sharing that occurred at the trial set-up stage. This provides evidence of flexi-permits enabling greater visibility through identification of non-permit works.

Data analysis highlights that:

- in the forward planning phase, LHAs and promoters typically had **one co-ordination meeting**, lasting **90 minutes on average**, however, one flexi-permit required 4 meetings.
- in addition to meetings in the forward planning phase, further time spent on administrative, co-ordination and documentation was **less than one hour** on average, costing £232 (note: LHAs estimated costs per hour for staff involved).
- in relation to submitting and reviewing Forward Planning Information (FPI), for promoters it typically required **4.7 hours to prepare**, and for LHAs this typically required **less than one hour to review** costing £69.
- in relation to flexi-permit submission, this typically required **1.5 hours to prepare**, and **0.6 hours on average for LHAs to review**. Compared to individual permits that underpinned the flexi permit, those required **2.3 hours to prepare** and **0.8 hours for LHAs to review**.
- 3,377 individual permits were cancelled across the two participants (15%), compared to 8 related to flexi-permits (9%).
- **4 of the flexi-permit programmes (27%) received complaints** (ranging from 1 – 4 complaints). Of the four programmes that received complaints, three were delivered by external promoters. Stakeholder evidence suggests that the level of complaints is “normal” for any programme of works.

Alternative Hypothesis

Communication and co-ordination may be enhanced by other contextual factors that fall outside the trial for example, changes in staff or leadership, more efficient use of the current system.

Evidence relating to the counter hypothesis is based on interviews with stakeholders.

- Several stakeholders noted that an important enabler of delivery during the trials was that they already had strong pre-existing working relationships with the other organisations involved. However, the majority reported that the flexi-permit improved their ability to co-ordinate works further, through providing greater flexibility to adapt workplans. Therefore, whilst good existing working relationships were important, the flexi-permits were generally considered to have enhanced co-ordination further.

- Stakeholders did not report that there were any changes in staff or leadership that could have influenced outcomes.
- Interviewed stakeholders did not report that the current system was used more efficiently during the trials. However, two trial respondents (LHA) reported that existing street works management platforms do provide options that allow promoters to input forward planning activities, but that these tools are non-compulsory and under-used. One respondent reflected that improved upfront planning and co-ordination could be achieved under the current system if these tools are used.
- However, stakeholder feedback largely indicates that under a flexi-permit, there is potential for these planning tools to provide further value, because there is greater scope for collaboration and manoeuvrability within a flexi-permit compared to regular permits.
- To ensure alignment with existing street works legislation, during the trial flexi-permits were submitted alongside the usual individual permits. One LHA did report that the individual permits were necessary to continue to register reinstatements on individual streets. This indicates that maintaining good visibility of works (i.e., knowing precisely where reinstatements occurred) was also dependent on having individual permits alongside the flexi-permit. In a formalised flexi-permit system, however, it is expected that this requirement would be addressed through management platforms with integrated flexi-permit functionality.

Overall assessment

The evaluation has found **moderate evidence** that stakeholders experienced an improved ability to co-ordinate works and had greater visibility of planned works during the trial. The trial contributed to this outcome through facilitating collaborative planning, detailed information sharing and frequent progress updates. However, other factors including strong pre-existing working relationships and the use of the existing system to record reinstatements (due to relevant management platforms currently not having flexi-permit functionality) also contributed to strong coordination and visibility. **There is therefore evidence to support the causal hypothesis, but insufficient evidence to reject the alternative.** This means that whilst the flexi-permit trial did contribute to an improved capability to co-ordinate work among stakeholders and greater visibility of planned works, there were also other influencing factors.

CC2: The trial will contribute to more efficient use of resources and work delivery for participating LHAs and promoters

Causal hypothesis:

The trial will streamline work delivery processes through efficient resource allocation (enabled by a flexi-permit approach to the programme of work), comprehensive site meetings and improved permit co-ordination procedures (not currently a mandatory feature of the permit system). This will lead to more efficient work delivery for both promoters and LHAs, measurable through comparisons of resource usage and project timelines.

Evidence from interviews, including with trial participants

Trial #1: LHA #1 and promoter #1 agreed that the flexi-permits enabled more efficient co-ordination of street works, through providing operational flexibility. The system enabled the promoter to adjust work plans or move into new streets without incurring delays and additional admin due to permit modification or early start requests. The LHA also noted improvements in their ability to coordinate works across their network, because they received more information on work plans. Stakeholders did not notice any impacts on duration of individual street works or levels of resource.

“The system enabled fluidity. If we couldn’t get into a street for whatever reason, we could move to the next one seamlessly. The co-ordination was good” (Promoter #1).

However, promoter #2 reported that while some flexibility was achieved, it did not lead to demonstrable efficiency gains or improved co-ordination procedures.

Trial #2: Stakeholders consistently reported that flexi-permits enabled faster delivery by reducing the need for re-permitting and allowing seamless movement between sites. Co-ordination improved through daily whereabouts updates and proactive engagement with highway authorities. The promoter reported that while initial setup required slightly more time, resource use during delivery was more efficient. However, they did not notice any clear cost impacts.

“Having the flexi permit in place allowed them to move between sites more quickly when they finished a section earlier. It absolutely had a benefit on that, in terms of time saving” (LHA).

Across both trials, most LHAs and promoters reported that the initial planning, information sharing and engagement meetings had an important role in enabling works to be carried out efficiently, by providing a clear and detailed framework for delivery.

Admin data provided by promoters (limited to five flexi-permits delivered by an external promoter in one LHA), identified **only one flexi-permit (20%) delivered ahead of schedule** (7 days compared to a planned 12 days). **Four flexi-permits (80%) reported overrunning timescales**, however, one of these was due to the build being put on hold (for 17 days). In total, across five flexi-permits that provided data, the **average overrun for works delivered was 4 days**.

Alternative Hypothesis

The efficient use of resources and work delivery may be enhanced by external factors, including changes in the type of works being delivered, more efficient use of the current system, changes to LHA and promoter personnel and ways of working, and seasonality effects for works that are weather-dependent

Interviews with participants highlighted that:

- Participating LHAs and promoters did not identify any changes in relation to personnel during the trial, the use of the current system or ways of working (i.e., beyond those required for the trial).
- In relation to the types of works being delivered, these were described as typical work programmes as would be delivered through regular permits.
- In one trial, during which works were delivered faster than planned, both the LHA and promoter noted that whilst flexi-permits contributed to faster delivery, a sustained period of favourable weather conditions was also an important factor.

One trial reported overrunning by 17 days to due to a delay in the build – i.e. not related to flexi-permits. Analysis of Street Manager data (refer to Table A6.1) identified a more significant difference between planned and actual delivery. This showed that actual delivery was less than anticipated across both flexi and non-flexi-permits, however, it was more efficient in the individual permits category.

Table A6.1: Permit Analysis

	Individual permits	Flexi-permits
Distinct permit	23,240	91
Planned duration – mean	8.5	11.9
Planned duration – median	5.0	6.0
Actual duration – mean	3.5	6.8
Actual duration – median	1.0	4.0

	Individual permits	Flexi-permits
Overrun rate (% where actual > planned)	0.6%	1.6%

Overall assessment:

The evidence in relation to this contribution claim is mixed. **There is some evidence to support the causal hypothesis based** on stakeholder feedback. The trial showed that flexi-permits improved coordination and operational flexibility, enabling more efficient use of resources during delivery. However, responses from some interviewees and data from a sample of flexi-permits trialled suggests a more mixed picture, and as such the **evidence is not sufficient to reject the alternative hypothesis. Whilst there is some evidence of more efficient resource use for participating LHAs and promoters, there is limited evidence of time or cost savings, whilst there is also evidence of an external factor (i.e., good weather) contributing to increased speed of delivery in one trial.**

CC3: The trial will contribute to increased road user disruption, leading to increased journey times and restricted route availability.

Causal Hypothesis

The implementation of the trial scheme may lead to increased road user disruption due to higher construction activity and co-ordination challenges. This can be measured by analysing traffic flow data and road user feedback during the trial period.

Evidence from interviews with trial participants:

Trial #1: There was stakeholder consensus that the flexi-permits had no substantial impact on road user disruption and that complaints from the public were not noticeably different compared to using a regular permit system. It was reported that this was because only passive traffic management measures and type 3 and 4 streets were used.

Trial #2: There was also stakeholder consensus in this trial that no substantial impacts on road user disruption were caused. A promoter reported that they could not recall any public complaints being raised, while the LHA reported that disruption was minimal because works were restricted to non-traffic-sensitive streets.

Alternative Hypothesis

Road user disruption may occur as a result of external factors such as the volume and frequency of emergency works within trial area, issues or changes within the public transportation system and increased traffic as a result of one-off incidents (such as major events or traffic collisions).

All trial participants reported that no issues were encountered regarding road user disruption caused by the flexi-permit.

Google API journey time data has been subject to an econometric analysis to determine if there was a statistically significant change in journey time as a result of the trials. **No significant change has been found** i.e. journey times were not increased or decreased as a result of works undertaken during the trial.

Overall assessment

The evaluation has found no evidence of increased road user disruption, increased journey times or restricted route availability. **There is strong evidence to reject the causal hypothesis.**

Following the analysis of evidence in relation to each Contribution Claim, the three Claims can be reworded to the following:

- The implementation of the trial contributed to an improved ability to co-ordinate work amongst stakeholders and greater visibility of planned works, particularly through facilitating collaborative planning and improved information sharing. However, strong pre-existing working relationships and use of the existing system to record reinstatements were also important factors.
- The trial showed some evidence of contributing to more efficient use of resources and work delivery for LHAs and promoters, particularly through increasing operational flexibility and reducing delays typically associated with modifying individual permits. However, this did not lead to clear impacts on costs or overall improvement in delivery speeds compared to using regular permits.
- The trial did not contribute to increased road user disruption and had no significant impacts on journey times.