

# Swindon Permit Scheme Year 3 Evaluation

Version A1

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## Key findings of the evaluation

Unless stated otherwise, figures quoted are based averages across permit scheme Years 1, 2 and 3.



# 1 Introduction

## 1.1 The role of a permit scheme

- 1.1.1. In 1991 the New Roads and Street Works Act (NRSWA) placed a duty on the Council, as a highway authority, to coordinate activities (works) of all kinds on the highway under the control of that Authority.
- 1.1.2. In 2004 the Traffic Management Act (TMA) and associated secondary legislation widened the NRSWA coordination duty. The scope of this increased duty has the following main considerations and Part 3 of the TMA allows for an Authority [the Council] to introduce a permit scheme to support the delivery of this duty.
- 1.1.3. The powers under a permit scheme enable the Council to take a more active involvement in the planning and coordination of works, from the initial planning stages through to completion. This includes:
  - organisations book occupation for work instead of giving notice, essentially obtaining a permit for their works;
  - any variation to the work needs to be agreed, before and after works have started, including extensions to the duration;
  - the Council can apply conditions to work to impose constraints; and
  - sanctions with fixed penalty notices for working without a permit or in breach of conditions (of the permit).
- 1.1.4. These powers enable a Council to deliver a more effective network management service, through the increased capability to control the planning and undertaking of work across their network.
- 1.1.5. In October 2021 the Council introduced the **Swindon Borough Council Permit Scheme**. The scheme was brought into legal effect through an Order created by the Council under the provisions of the Traffic Management Permit Scheme (England) Regulations.

## 1.2 Regulatory requirement for a permit scheme evaluation

- 1.2.1. Permit Scheme Regulation states that permit schemes [should] be evaluated following the first, second and third anniversary of the scheme's commencement and then following every third anniversary. The regulation further states that, in its evaluation, the Permit Authority [Council] shall include consideration of:
  - whether the fee structure needs to be changed in light of any surplus or deficit;
  - the costs and benefits (whether or not financial) of operating the scheme; and
  - whether the permit scheme is meeting key performance indicators where these are set out in the Guidance.
- 1.2.2. This report has been developed by an external consultant, Open Road Associates, for the Council to provide an evaluation for scheme Years 1 and 2 (October 2021 to September 2023) of the Permit Scheme and includes the provisions set out within the regulations.
- 1.2.3. The regulations reference key performance indicators set out in Statutory Guidance. Annex A of the Guidance contains a list of Key Performance Indicators. Annex C of this report contains the performance indicator results for each permit scheme year (as available).

## 2 Executive summary

- 2.1.1. The Council has been operating a permit scheme for three years, which provides sufficient opportunity for new ways of working, for both the Council and Promoters, to have been established and tested. The evaluation therefore seeks to demonstrate whether the Scheme is being operated both efficiently and effectively, and overall, a permit scheme is of benefit to Swindon.

### 2.2 Analysis of coordination

- 2.2.1. Applications for work decreased significantly in Year 3, compared to the previous years, because of a comparative drop in work across all sectors, especially within the Telecoms and Water sector. This can be attributed to completion of key projects within both these sectors, including work for the national broadband rollout.
- 2.2.2. Over the three Scheme years, application lead times (before the proposed work start) for provisional advanced authorisations for Major works have remained similar. Application lead times for permits (planned work) vary by work category, and whilst they dropped in 2023 they have increased, beyond the average for the period, into 2024.
- 2.2.3. The volume of applications in-time dropped in Year 3 (from 84% in Year 2 to 78% in Year 3). Three specific sectors that need monitoring for potential lead time issues are: Electricity, Gas and Highway Authority. Of these applications, the Council are only granting 85% (of total), which demonstrates due consideration to the impact of the work with a shorter lead time and visibility to the Public and other impacted parties.
- 2.2.4. In Year 3 the Council continue to grant a high proportion of the provisional advanced authorisations for Major work (91%) whilst granted permit applications remained at 80%. Analysis for reasons for refusal is limited as most rejections are made using a permit modification requests which do not include options to select the predefined national codes for refusal.

### 2.3 Analysis of work

- 2.3.1. Overall, in the three years of Scheme operation, only 86% of applications result in an actual work. This means a significant volume of resource and administration, including any fees charged to grant a permit, is wasted by both the Council and Promoters on the application process.
- 2.3.2. Whilst it is recognised that the Council has no control over this process for the external Promoters, a significant proportion of these works are within the Highway Authority sector, which the Council should be able to influence.
- 2.3.3. The volume of work undertaken in Year 3 has dropped significantly, compared to previous years. Whilst comparable decreases can be seen across all sectors, the Telecoms and Water sectors have seen the most dramatic change. This does mean the potential impact of work across Swindon has also decreased, which is positive. Going forward, the Council need to carefully consider their operating model given this change.
- 2.3.4. The volume of works with a form of collaboration remained proportionally small, compared to all work undertaken. In Year 3, 91 collaborative works were undertaken amounting to 150 collective days of combined occupation. The Council need to continue, whenever possible, take advantage of all opportunities for collaboration between Promoters.
- 2.3.5. The volume of permit-variations decreased significantly in Year 3, which can be attributed to the overall decrease in work undertaken. This includes work duration extensions, where 92% are being granted, with the remainder either refused or granted with a duration challenge.

- 2.3.6. The location of all works across the three permit scheme years show that 51% of work is undertaken on the footway only, with 42% involving work on the carriageway and the remainder (6%) confined to the verge. It is likely that proportion will change in future years now that the high volume of Telecoms work, predominantly on the footway, are reducing.
- 2.3.7. Further analysis shows that in Year 3 only 15% of work undertaken impacted carriageway traffic, which was an increase from 11% compared to previous years. This demonstrates that whilst there have been significant works across Swindon in the three years of the Scheme, the impact of these works has been predominantly on pedestrian traffic, not the motorist. This is reflected within the impact to society within the cost-benefit-analysis as part of this evaluation.
- 2.3.8. Analysis of work activity type shows across the three Scheme years:
- 69% of work is for utility repair and maintenance;
  - 17% of work is for utility asset works;
  - 6% of work is for remedial defect repairs; however, the Telecoms sector undertakes the highest proportion of remedial work (10% of all work);
  - There is a low level (1% of total) for returns to site for temporary to permanent reinstatement;
  - Electricity (95%) and Gas (92%) sectors predominantly undertake utility repair and maintenance works;
- The Water sector have undertaken a higher proportion of utility asset works (32%) in addition to repair and maintenance (63%).

## 2.4 Analysis of work duration

- 2.4.1. Given the significant reduction of work undertaken in Year 3, the overall duration of work has also decreased – from c.49,000 days in Year 2 to c.16,000 days in Year 3. Analysis of duration across the three years shows the following trends, compared to average duration:
- A decrease for Major work since March 2024 with an average duration of between 25 and 29 days;
  - A decrease for Standard work since the start of 2023, with an increasing trend towards the end of 2024, with an average duration of 7.6 days;
  - A decrease for Minor works since mid-2023 with an increasing trend towards the end of 2024, with an average duration of 1.7 days; and
  - A consistent average duration for Immediate work, with a slight decrease towards the end of 2024, with an average duration of between 3.5 and 3.8 days.
- 2.4.2. Overall, the Council should monitor the durations of Standard and Minor works going forward to ensure the trend towards a duration increase is acceptable.
- 2.4.3. Work exceeding the agreed duration remains at the same level as Year 2 (12% of all work).
- 2.4.4. The proportion of work and duration at traffic-sensitive (peak times) on traffic-sensitive streets saw a significant increase in Year 3, compared to previous years, especially for shorter duration work (<8 hours). This is an area the Council should monitor going forward to ensure the impact of work on traffic-sensitive streets at traffic-sensitive times is kept to a minimum.
- 2.4.5. Additionally, the Council does intend to review and update the current traffic sensitivity designations across Swindon in early 2025, which should help ensure works on the most sensitive section of network are coordinated effectively.

## 2.5 Analysis of permit conditions

- 2.5.1. The proportion of work undertaken with a permit condition decreased from Year 2 (72%) to Year 3 (41%). Analysis shows decreases predominantly for conditions related to the removal or storage of materials or plant, and area of road occupation.
- 2.5.2. It could be assumed that this correlates with the overall reduction in work undertaken, and the conditions required for the type of work being undertaken. However, further analysis on the benefits of conditions applied, within defined scenarios, indicates that there needs to be a continued review and check on how conditions are being applied to work for maximum effectiveness.

## 2.6 Analysis of permit compliance

- 2.6.1. The proportion of work with a live site inspection increased in Year 3 (20%) compared to Year 2 (8%). Whilst this is to be expected, considering the overall reduction in work undertaken, it is still encouraging that 1 in 5 work sites across Swindon are inspected to ensure safety and permit compliance.
- 2.6.2. Permit related offences, for working without a permit or breach of permit conditions, also increased in Year 3 compared to previous years. Whilst most offences for breach of permit conditions relate to (lack of) display of permit number, it is positive to note that offences for other conditions are recorded which demonstrates an effective inspection regime.
- 2.6.3. A significant proportion of these offences are still being defined as “other reason” which is an issue the Council need to review to ensure all offences clearly identify a valid reason for the offence.

## 2.7 Analysis of parity treatment

- 2.7.1. Overall, the analysis of parity treatment demonstrates that the Scheme is being applied systematically across Promoters. The only exception to this relates to the proportion of variations issued by the Council and live site inspections for the Electricity and Gas sectors. Both these results can be justified by a disproportionate (compared to total work) need for the Council to check and act for both these sectors in relation to unacceptable working practices.






## 2.8 Analysis of costs and benefits







- 2.8.1. In Year 3 the Council incurred a significant reduction in income from permit fees, resulting in a significant deficit of the recoverable cost. This is directly attributable to a lower volume of applications from a reduced volume of works.
- 2.8.2. This means that overall, after three years of Scheme operation, the Council is operating at a deficit of -£139,577. In Year 4 (2025) the Council intend to issue a Scheme variation to increase the permit fee levels to ensure they recover this deficit and continue to recover their prescribed costs as allowed under regulations.
- 2.8.3. The Scheme appraisal from the cost-benefit analysis across the three years of the Scheme demonstrates that a permit scheme in Swindon is value-for-money, delivering a greater benefit than its costs. With a benefit-to-cost ratio of 2.97 the Scheme is classified as high value for money.
- 2.8.4. In addition, further analysis of the findings from the cost-benefit-analysis estimate that the Scheme leads to carbon emission savings of 337 tonnes CO<sub>2</sub> per year. To set this emission saving in context, using the typical emissions of new cars sold in the UK currently, this reduction amounts to an equivalent saving of over 280,000 annual car kms.






## 2.9 Summary of Year 3

- 2.9.1. The evaluation clearly demonstrates that after three years both the Council and Promoters are working efficiently within a permit regime. Applications are being made, typically in accordance with the required timescales, and these are being processed by the Council.
- 2.9.2. Variations required to a permit are being submitted by Promoters and processed by the Council. The Council are also proactively issuing variations and revocations to Promoters where they consider remedial action is required.
- 2.9.3. The Council are also being efficient with their compliance regime by inspecting a high proportion of work - given the resource required to visit active sites - and applying sanctions (offences) to those Promoters who do not comply with the Scheme.
- 2.9.4. It is more difficult to quantify whether the Scheme is operated to best effect. The evaluation demonstrates positives that can be attributed towards a permit regime, including duration of work, conditions applied to works, which includes (but is not limited to) timing constraints, use of traffic control and advanced publicity for work under a road closure.
- 2.9.5. The evaluation shows areas where there is potential for the Council to be more efficient and effective with the operation of their permit scheme. These are summarised in the table below as recommendations, which continues from recommendations made in the Year 2 evaluation.

RAG	Evaluation Section	Summary of recommendation	Update for scheme Year 3
	3.2	Monitor the applications for PAA to ensure the average lead time does not decrease below the minimum required.	The PAA duration trend is showing an increase from 2023. Continue monitoring as a risk. .
	3.2	Monitor the applications for permits (for planned work) not received in time to ensure the reason for the short lead time is acceptable and any further impact is acceptable.	New action for Year 3. Continue monitored as a risk.
	3.3	Review the process for refusing permit applications and ensure the correct use of refusal codes.	The proportion of refusals (via permit modification request) with a refusal code remains very low.  This recommendation needs ongoing attention as an active issue.
	3.4	Work with Promoters to encourage increased use of permits being granted and reduce cancellations, especially for Highway work.	This issue remains and the impact to wasted resource and administration needs to be considered.  Action required as an ongoing issue.
	3.5	Consider all opportunities for collaboration between Promoters.	New issue for Year 3.

RAG	Evaluation Section	Summary of recommendation	Update for scheme Year 3
	4.2	Monitor the average duration of work, identifying any increasing trends and anomalies.	<p>Duration trends showing an increase for planned Standard and Minor work (below average) towards the end of 2024.</p> <p>The Council need to ensure these durations do not exceed average and the average duration does not increase.</p> <p>Continue monitoring as a risk.</p>
	4.2	Monitor increasing average duration for Immediate work.	<p>The Immediate work duration trend shows a slight decrease towards the end of 2024 but remains below average.</p> <p>Continue monitoring as a risk.</p>
	4.3	Monitor work exceeding planned duration to ensure the low level (% of total) does not increase.	<p>Volumes in Year 3 remained the same for Year 2.</p> <p>Continue monitoring as a risk.</p>
	4.4	Focus attention on work at traffic-sensitive times, to ensure any appropriate conditions are applied and any other coordination opportunities to reduce the occupation at traffic-sensitive times are consider.	<p>The proportionate volume of work and duration, for works below 8 hours, outside of (peak) traffic-sensitive times increased in Year 3.</p> <p>Monitoring and action is required, especially in the use of conditions for timing and traffic-management, to lessen impact on traffic at peak times.</p> <p>Continue monitoring as a risk.</p>
	4.5	Ensure works under <i>some carriageway incursion</i> are checked carefully at the application stage, and if possible with an onsite inspection, to ensure these work do not impact the flow of traffic.	<p>The proportion of work under some carriageway incursion has decreased to 51% in Year 3 (compared to 62% in Year 2).</p> <p>Continue monitoring as a risk.</p>
	5.2	Review the conditions on permits and how they are applied. Initially focusing on key areas of work at traffic sensitive times, advanced publicity for road closure and manual control of traffic management.	<p>Reduced work with a condition in Year 3 compared to Year 2.</p> <p>The conditions applied to specific test scenarios remains low and has decreased in Year 3 for 2/3 measures.</p> <p>Action required as an ongoing issue.</p>

RAG	Evaluation Section	Summary of recommendation	Update for scheme Year 3
	6.2	Ensure permit offences for breach of condition contain direct reference to a permit condition.	A large proportion of offences still contained other reason in Year 3. Action required as an ongoing issue.
	7.2	Continue assessing the role of the permit scheme to meet the Councils Public Sector Equality Duty.	No change in scheme Year 3. Continue monitoring as a risk.
	8.1	Undertake a Scheme variation to amend the permit fee levels to recover the historic income deficit and ensure the Scheme continues to recover the prescribed costs.	New issue for Year 3.

## 3 Analysis of coordination

### 3.1 Applications for work

3.1.1. All **registerable works** require an application to the Council to obtain a permit. Prior to the introduction of the permit scheme, the Council was notified of these works.

3.1.2. Throughout this evaluation the term **application** refers to both the initial notice or permit application and the three-month advance notice application (PAA) for a Major work, unless stated otherwise. Non-statutory forward planning notices are not included.

The charts below show the volume of applications received, delineated by sector, per Year.

**Applications received by sector per year**

	Y1 (2021/22)	Y2 (2022/23)	Y3 (2023/24)
Electricity	490	629	590
Gas	333	424	312
Highway Authority	1,495	1,001	779
National Highways	7	20	3
Other	5	13	3
Telecoms	7,287	5,674	2,521
Water	3,164	3,759	2,001
<b>All sectors</b>	<b>12,781</b>	<b>11,520</b>	<b>6,209</b>

3.1.3. Analysis of work and therefore applications over time will typically show variance because of project specific work or demands on the network. Many of these relate to government led initiatives, *such as broadband and fibre rollout*. It is likely that future initiatives, *such as electric vehicle charge points*, will see further peaks in work when compared to a typical year of routine maintenance and repairs.

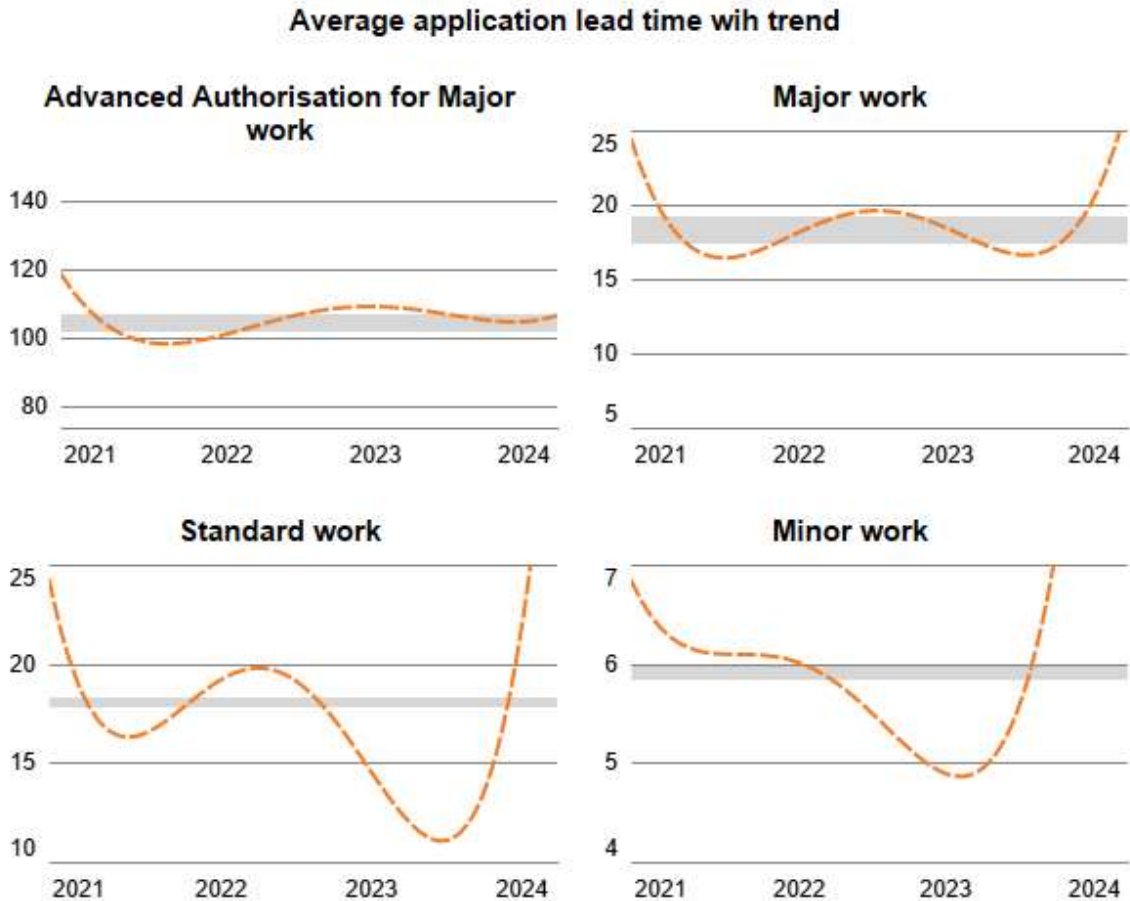
### 3.2 Application lead time

3.2.1. For the Council to effectively carry out the coordination of works, including the advanced publicity of works, it is essential that applications are submitted with sufficient lead time based on the work category, as set out within primary legislation.

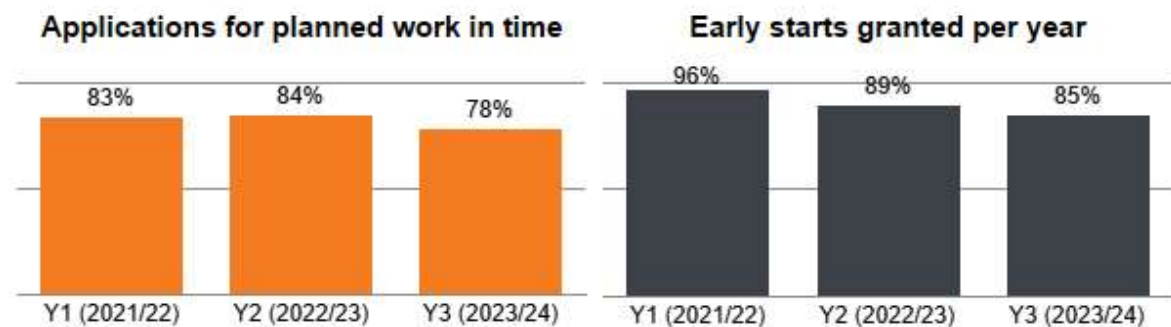
- Major and Standard work requires an application lead time of 10 working days prior to the proposed work start date. Major work also requires a 3-month advanced notice, which becomes a provisional advanced authorisation under a permit scheme.
- Minor works require 3 working days lead time.
- Immediate works can be submitted after works start and must be received within 2 hours of works start or by 10:00 on the next working day if work started outside of non-working hours.

The charts below show a trend line (orange-dotted) based on the average (grey bar) application lead time, per month, for the period between Years -1 and 3. The charts are delineated into work category and for advanced authorisation (3-month notice or PAA applications) for Major work and notice or permit applications for the work categories. Applications not submitted in time have been removed from this analysis to provide a more accurate representation of lead time. To reduce any anomalies for the analysis of lead times only applications with a lead time between 1 and 100 days for notices and permits and 1 to 250 days for major works advanced notice or PAA were included.

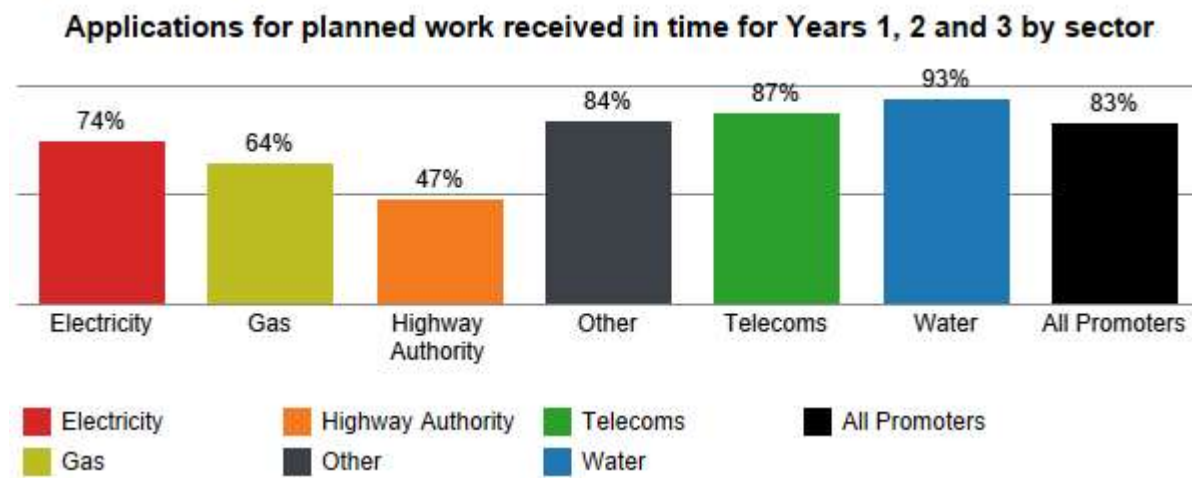
The trend shown in a polynomial model computed (6 degrees) from a natural log of lead time for each application lead time.



The chart below shows (left) the proportion of applications received in time (of total received) for planned work (excluding Immediate work category), in accordance with the minimum lead time and (right) the proportion of requests granted by the Council (as a % of total received). Any instances of an application being superseded, cancelled or auto-granted (deemed) have been removed.



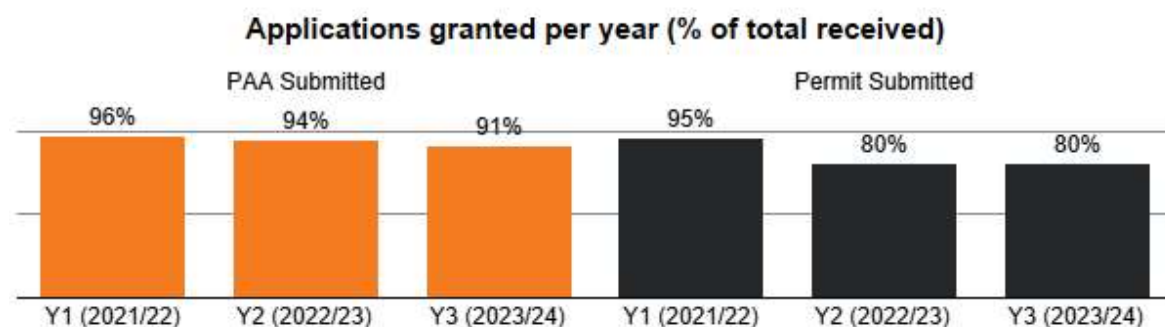
The chart below shows the proportion of applications received in time (of total received) for planned work in Years 1 to 3 by sector.



### 3.3 Response to permit applications

- 3.3.1. For a permit scheme to be effective the Council must process and respond to each application. Where the Council accept an application, it is granted. Where the Council do not accept an application, or want to make changes to the proposed work, it is refused, and a response code (based on a set of national codes) **must** be provided.

The charts below show (left) PAA applications and (right) permit applications granted by the Council as a proportion of the total received. PAAs and permits that were cancelled or superseded before a response was given have been removed from this analysis.



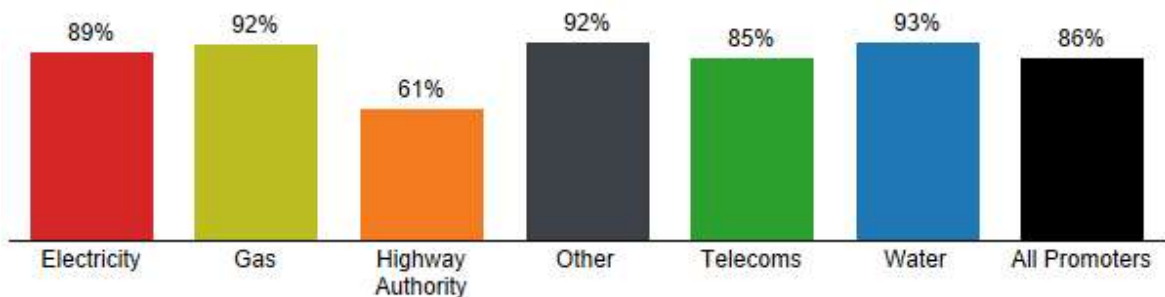
- 3.3.2. Analysis for reasons for refusal, using the national defined reasons for refusal codes, is limited as most rejections are made using a permit modification requests which do not include options to select the predefined national codes. As such, this analysis has been removed from the evaluation.

### 3.4 Work undertaken

- 3.4.1. Works are only treated as 'undertaken' when they have reached a stage of 'in progress', i.e. work has started. Not all applications for work or where a permit has been obtained (granted) result in work undertaken.

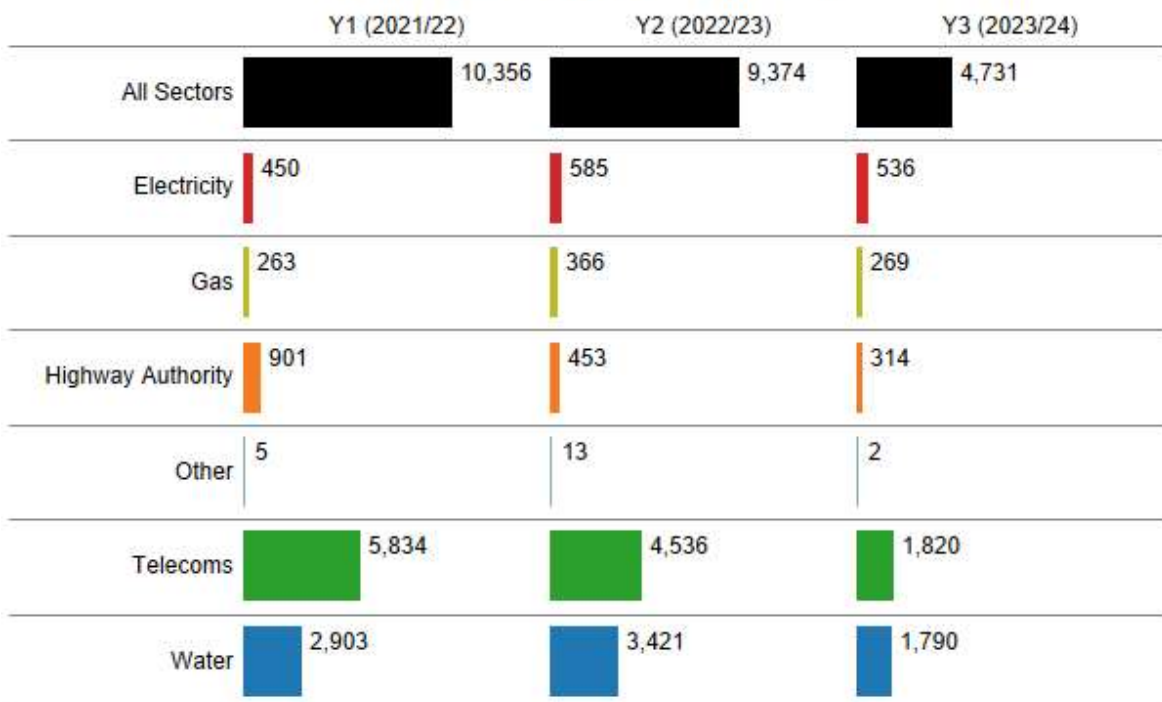
The chart below shows the applications for planned work that result in work undertaken in Years 1-3 by sector. Applications for work that did not progress to a work start status are deemed as not undertaken.

**Applications resulting in work undertaken (% of total) by sector for Years 1 to 3**



The chart below shows the total volume of work undertaken per year, where the year is defined by the date of the initial application not the actual start date of work for each sector (colour legend).

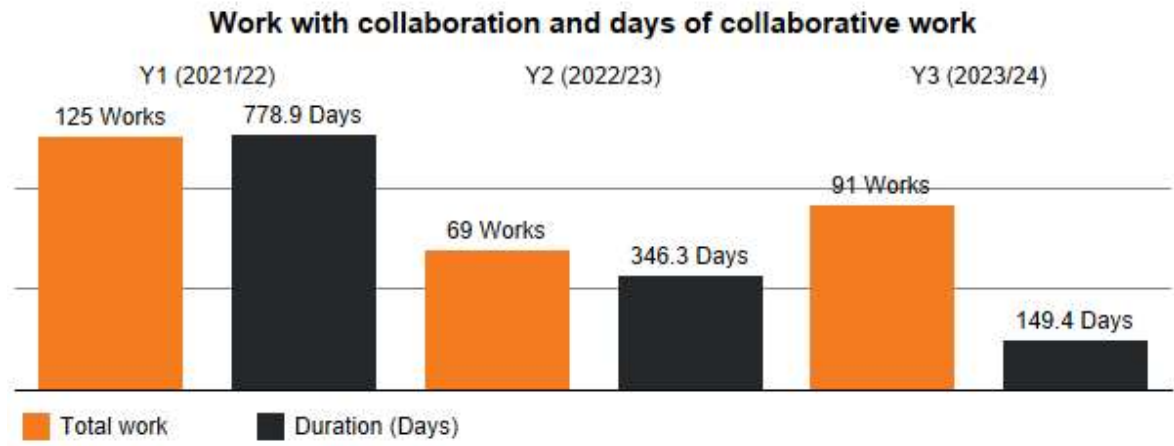
**Work undertaken per year by sector**



### 3.5 Collaborative works

- 3.5.1. One of the most effective methods for the Council to reduce the potential disruption is for Promoters to collaborate their works, thereby undertaking work on the same section of the highway at the same time, under the same form of traffic management, or contiguous working where work methodology does not allow for works in a close proximity.
- 3.5.2. Collaboration between Promoters is recognised as an industrywide challenge, with limited opportunities and practical limitations within work delivery constraints, resource schedules and methodology.

The chart below shows the total number of works undertaken and duration (days) with a form of collaboration.



### 3.6 Variations to permits

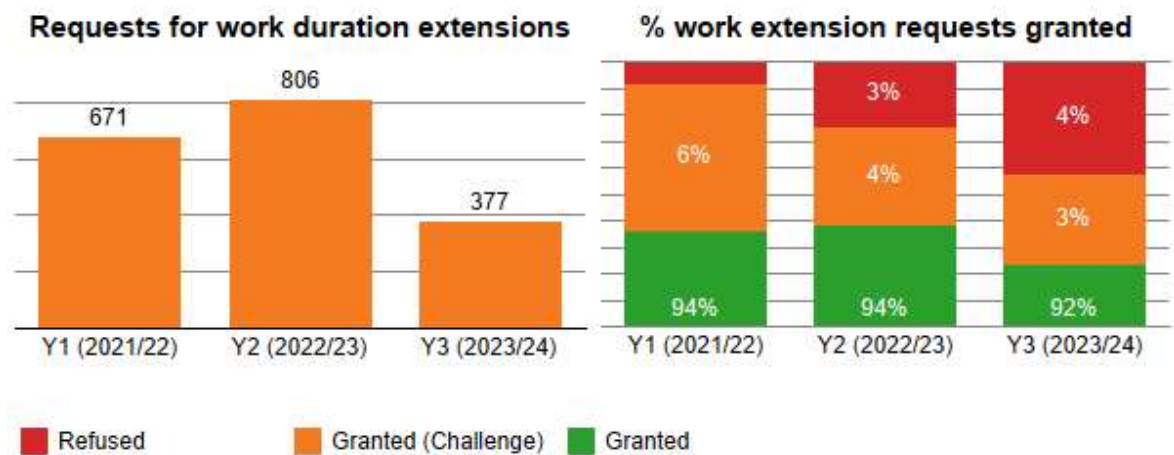
3.6.1. Both regulations and the Scheme includes a provision for the Council to vary or revoke a permit. There are many reasons why variations are issued, which include changes for planned work dates, because of lack of resources, *such as a contractor or work gang availability*; requests to extend the planned duration of the work, such as plant breakdown or bad weather; or other unplanned activities on the network *such as emergency diversion route*.

3.6.2. The types of permit variation fall within one of four different categories: **Highway Authority imposed change** where the Council want to make a change to the permit. **Permit modification** where a Promoter is responding to a modification request (refusal) from the Council. **Promoter change request** where a permit has been granted and the Promoter wants to vary the permit. **Promoter imposed change** where a Promoter wants to vary a permit that is still in the application stage. **Work extension** where a Promoter wants to change the proposed work end date (typically to increase duration) once a work has started.

#### 3.6.2 Work duration extensions

3.6.3. Section 4.3 considers work where the actual duration exceeds the planned duration without a duration extension. In most instances Promoters submit a work duration extension request when it is apparent that the works will take longer than planned.

The charts below show requests for work duration extensions (left); the proportion granted of the total received (middle) with applications cancelled or superseded removed; and the total additional duration (whole calendar days) of work with a duration extension (right).

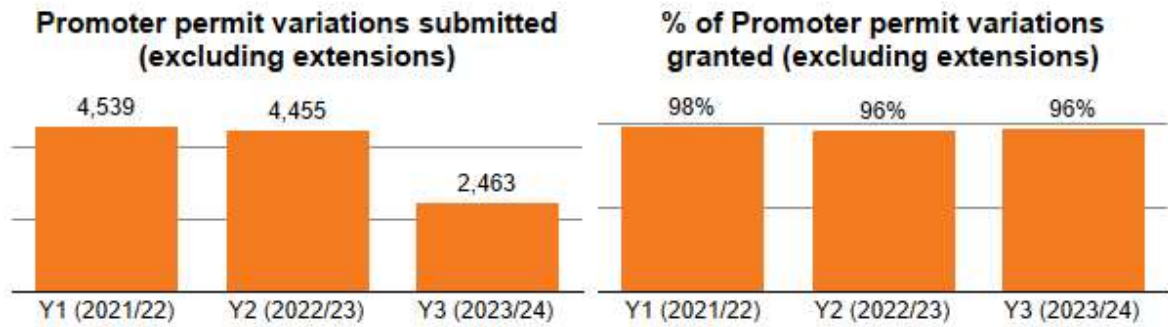




### 3.6.3 Other variations from Promoters

3.6.4. Other variations from Promoters are to mainly make changes to permits (not duration extensions) prior to work start, to either change the planned work or at Council request.

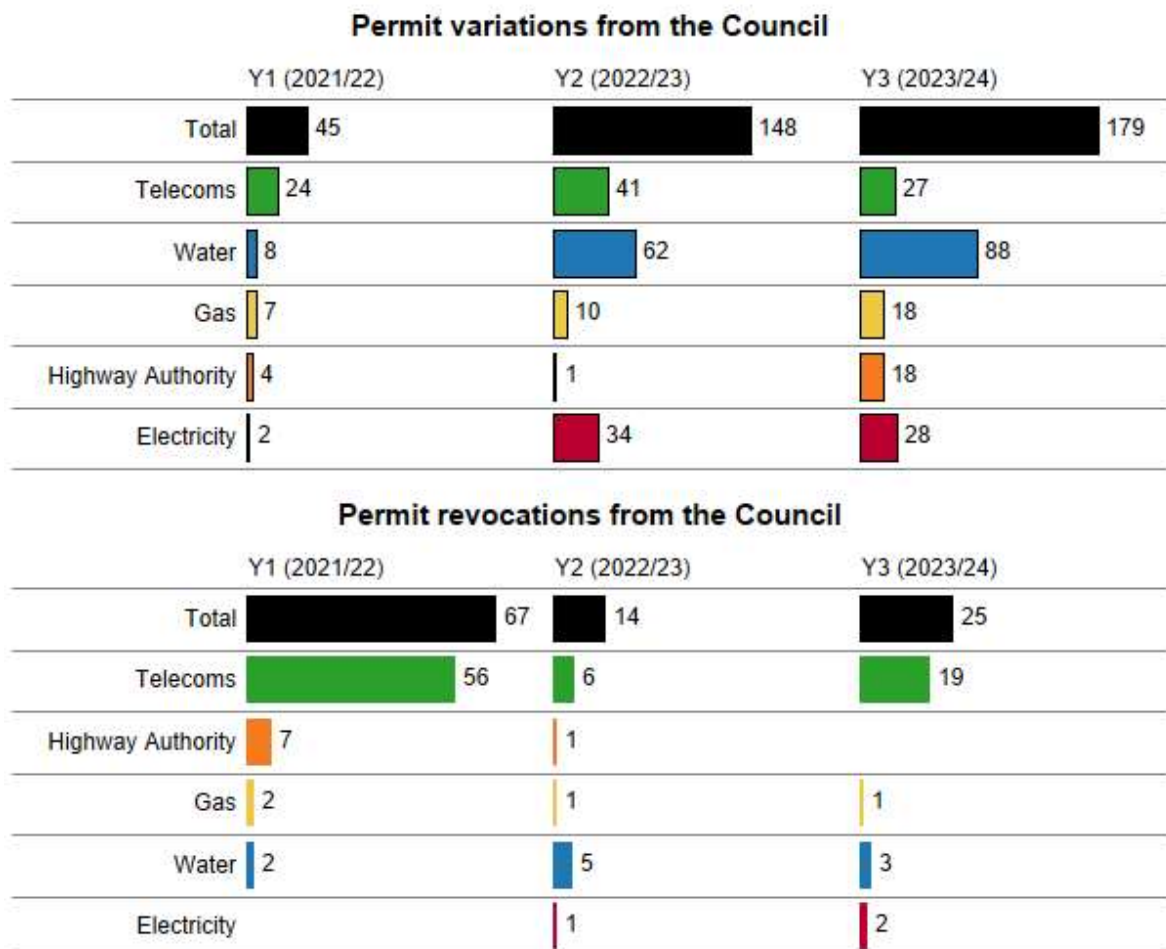
The chart below shows (left) permit variations (excluding duration extension) issued by Promoters and (right) the proportion of Promoter variations granted as a % of total submitted (right). Applications that were cancelled or superseded before a response was given have been removed from this analysis.



### 3.6.4 Variations issued by the Council

3.6.5. The Council can also issue a variation to a Promoter and as required revoke a permit. This action is relatively infrequent and typically as result of unforeseen network demands or poor working practices by Promoters.

The chart below shows the volume of authority-imposed variations and permit revocations issued by the Council to Promoters (left) and the permit revocations issued by the Council (right).



### 3.7 Work location

3.7.1. A work can impact different types of traffic based on the location, primarily vehicle (carriageway), cyclists (cycleway) and pedestrians (footway). Some work can be confined to the verge only. Analysing work location with traffic control can highlight potential anomalies within the information provided by the Promoter, *such as work undertaken on the carriageway where the traffic management is no carriageway incursion*. However, it is accepted that the aggregate figures provide a good indicator of work location.

The table below shows the location of work in Years 1 to 3 as a % of total work undertaken, delineated by planned work and Immediate work.

	Planned	Immediate	Total
Footway only	48%	62%	51%
Carriageway and footway	39%	12%	33%
Carriageway only	8%	15%	9%
Verge only	4%	10%	6%

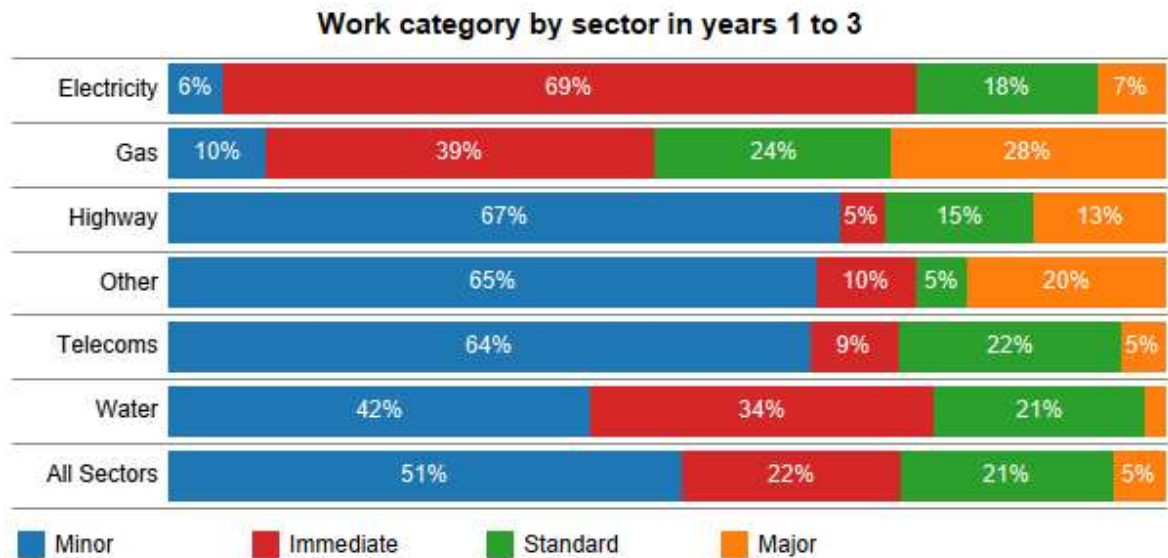
The table below shows work undertaken per Year by work location and traffic management. Where work covers more than one location the following hierarchy is applied: carriageway, cycleway, footpath, footway and verge.

		No carriageway incursion	Some carriageway incursion	Passive traffic control	Positive Traffic Control
Y1 (2021/22)	Carriageway	0%	33%	3%	8%
	Cycleway	0%	0%	0%	
	Footpath	2%	1%	0%	0%
	Footway	12%	34%	1%	1%
	Verge	2%	3%	0%	1%
Y2 (2022/23)	Carriageway	1%	35%	3%	8%
	Cycleway	0%	0%		
	Footpath	1%	0%		0%
	Footway	11%	29%	5%	1%
	Verge	2%	2%	0%	1%
Y3 (2023/24)	Carriageway	0%	16%	4%	11%
	Cycleway	0%	0%		0%
	Footpath	2%	1%	0%	0%
	Footway	14%	37%	3%	2%
	Verge	3%	4%	0%	1%

### 3.8 Work category

3.8.1. Works are delineated into categories, typically by their duration or if a road closure is required (refer to glossary).

The table below shows the proportion of work and duration (total days) of work undertaken by work category and sector. The colour gradient (white to red) depicts the value (lower to higher) by sector and total.



### 3.9 Work activity type

3.9.1. Since the introduction of Street Manager in July 2020 Promoters have been able to provide an activity type on their permit, identifying the type of work being undertaken.

The table below shows the proportion of work undertaken (% of total) in Years 1 - 3 by activity type per sector. The colour gradient (white to red) depicts the value (lower to higher) by sector and total.

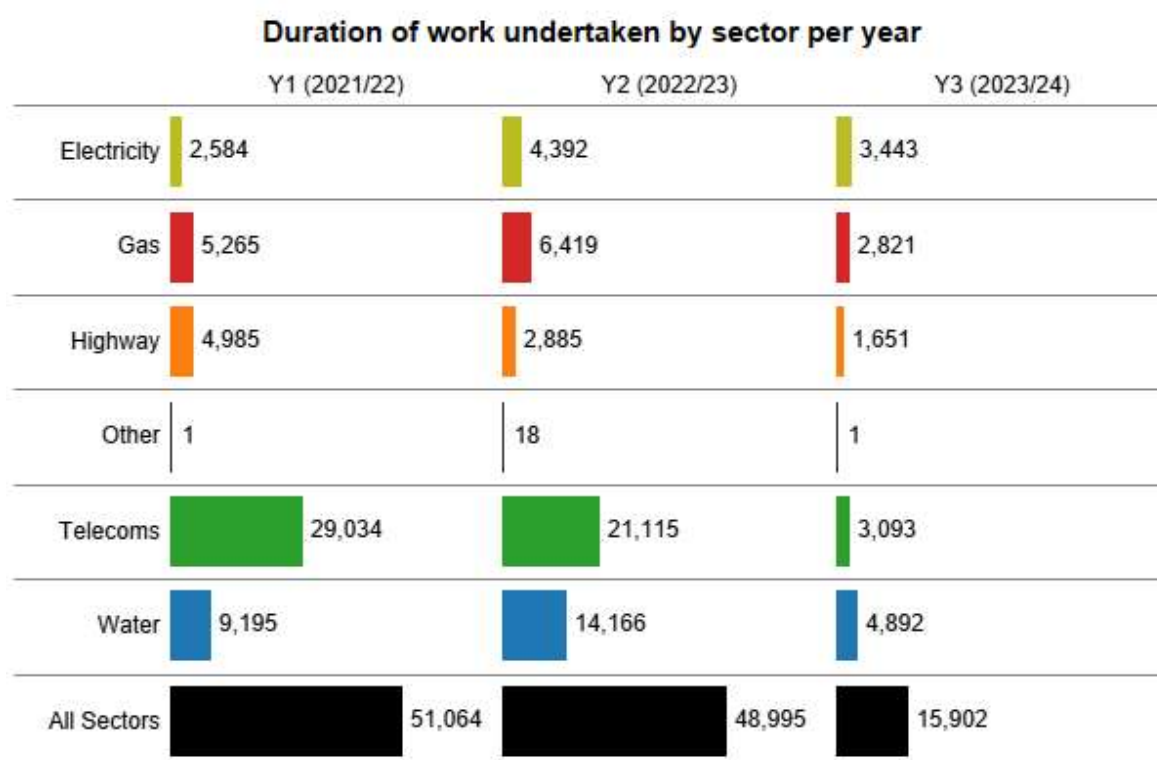
**Activity type by sector in years 1 to 3**

	Electricity	Gas	Highway	Other	Telecoms	Water	Total
Core Sampling			1%		0%		0%
Disconnection or alteration of supply		0%	27%			0%	2%
Diversions works			0%		0%		0%
Highway improvement works			24%		0%		2%
Highway repair and maintenance works	0%		32%	35%	0%		2%
New service connection	1%	0%	3%		0%	2%	1%
Permanent reinstatement	1%	5%	1%		0%	0%	1%
Remedial works	2%	2%	3%		10%	2%	6%
Statutory Infrastructure Works			1%		0%	0%	0%
Utility asset works	1%	1%	3%		11%	32%	17%
Utility repair and maintenance works	95%	92%	1%		78%	63%	69%
Works for Rail Purposes			0%	65%	0%	0%	0%
Works for road purposes			5%			0%	0%

## 4 Work duration

- 4.1.1. Analysis of work duration is based on works undertaken only. Durations are typically calculated in whole calendar days, however in reality a work, *such as an asset inspection or pothole repair*, may only take a few minutes or hours.
- 4.1.2. The introduction of the DfT's digital service, Street Manager, and associated regulatory changes in July 2020 made it possible to determine the timings more accurately and reliably from the works data. This means a work duration can be calculated by minutes instead of whole days.

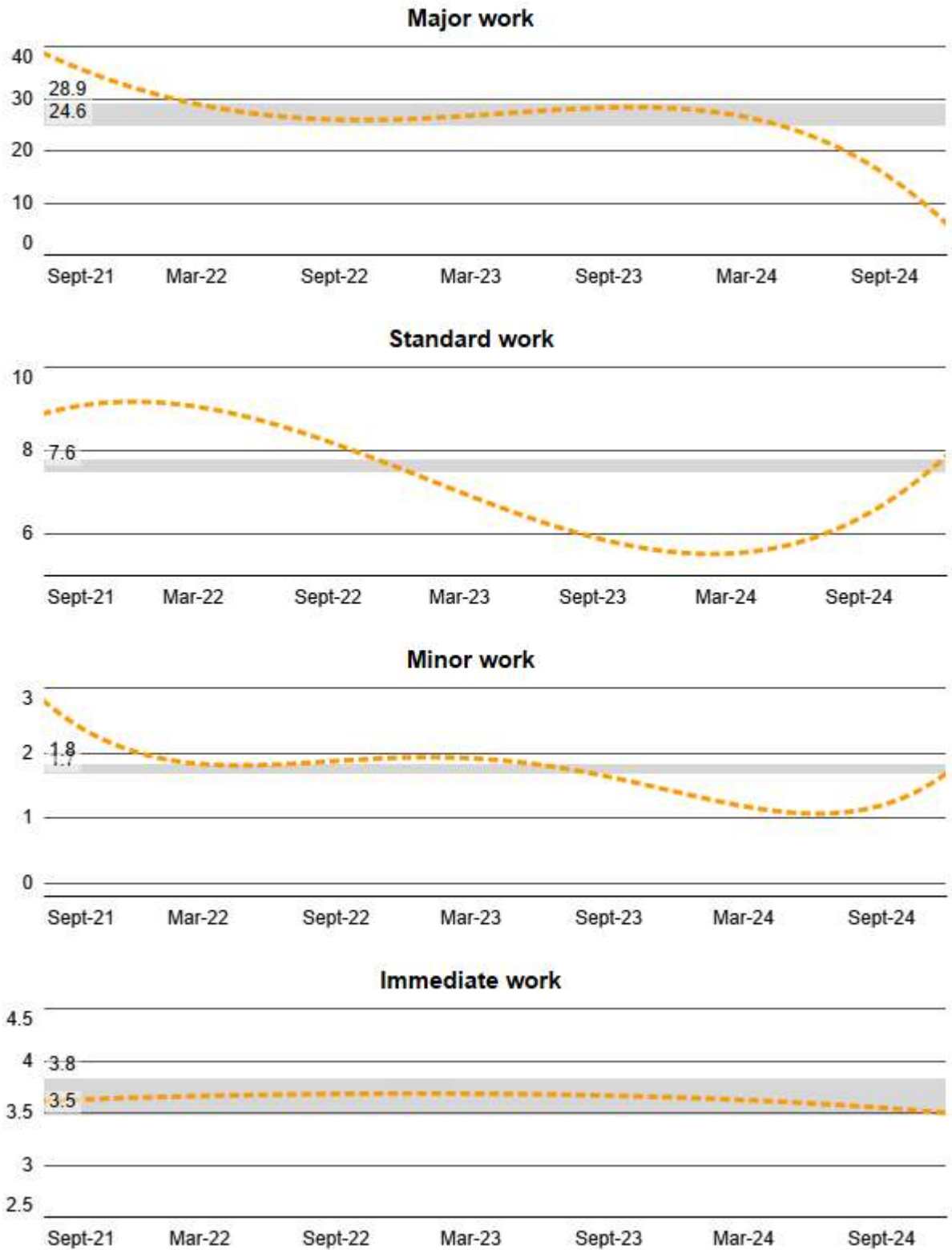
The chart below shows the total duration of work per year with (aggregated days). A work is assigned to a year based on the first application date, not when the work was started or completed.



### 4.2 Analysis of duration

- 4.2.1. Analysis of duration is difficult as there are several factors to consider and aggregating durations into an average does not provide a true reflection of and patterns or variation. A more effective analysis is based on the duration for each individual work, calculated on the actual minutes – taken from the work start and stop dates and times – aggregated to calendar days.
- 4.2.2. Trend analysis is based over time, using each individual work, and is shown with an average duration. The analysis is delineated into work category', which is typically based on a duration banding, *i.e. a minor is work within 2-3 days*. Considering trend over time with the average duration provides an effective indicator as to if and when durations are decreasing and increasing or remaining stable.

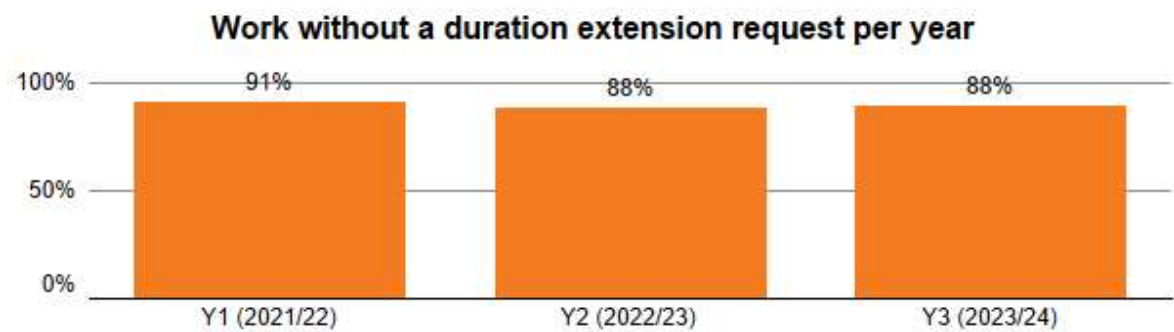
The charts below show an average duration trend for the four work categories across Years -1 to 3. The (red dotted) line shows a polynomial trend model computed for each duration observation, with 5 degrees of freedom.



### 4.3 Work exceeding agreed duration

- 4.3.1. Works being undertaken on a very busy and often congested road network that exceed their agreed reasonable period of duration can create significant coordination issues. In turn, these works can apply a 'domino effect' on work programmes and the potential need to reschedule or revoke other active or planned works that may clash with adjacent over running works.
- 4.3.2. For this evaluation a work exceeding the agreed duration is identified when a work's **actual duration** is exceeded by the **proposed duration** and a **duration extension has not been granted**. The duration of the unplanned duration is measured in **calendar days**.

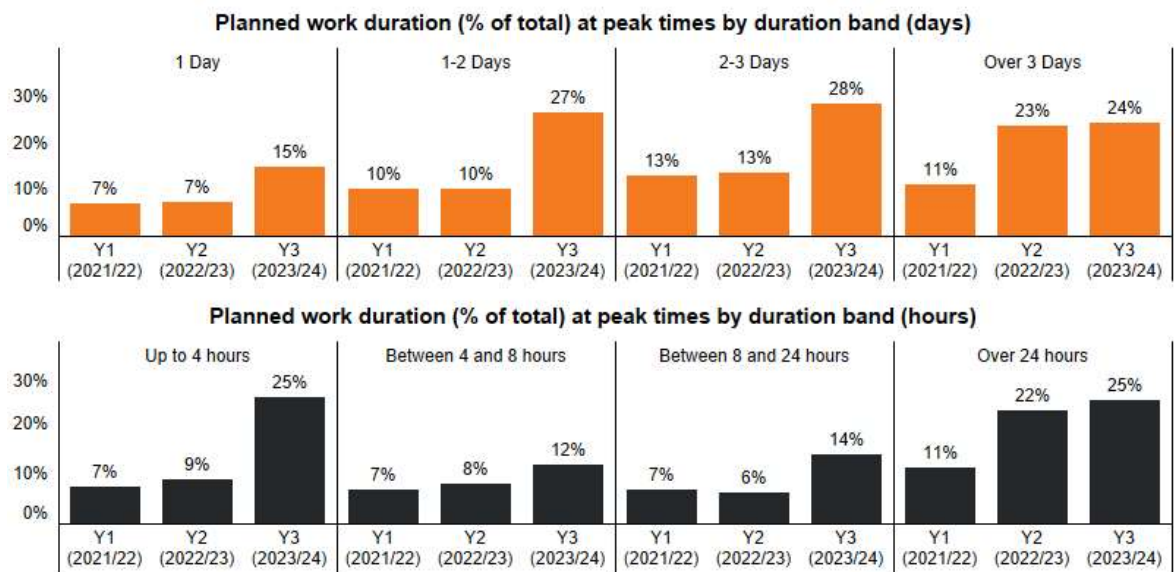
The chart below shows the proportion of all work undertaken (% of total) with an extension request per Year.



### 4.4 Work at traffic-sensitive times

- 4.4.1. Designations in the local street gazetteer enable the council to identify whether a street is traffic-sensitive, based on a set of criteria which includes the volume of traffic travelling on the street over a given period, and the times of that traffic-sensitivity, e.g. *common peak periods such as 07:00 – 10:00 and 16:00 – 19:00*.

The chart below shows the proportion of planned work (excludes Immediate work) on a street with a traffic-sensitive designation when the work was during the traffic sensitive time. For example if the traffic-sensitive times are 07:00 – 10:00 and a work duration was 08:00 – 12:00 the duration at traffic-sensitive times would be 2 hours of the total 4 hours (50% of the total).



## 4.5 Use of traffic management

- 4.5.1. All works must be undertaken using an appropriate form of traffic management (control) to ensure work is undertaken safely - for those undertaking the works as well as the road user, *including pedestrians, cyclists and in particular the needs of disabled people and vulnerable groups*. Different forms of traffic management have varying impacts to the network, *especially the use of portable traffic signals, lane closures and road closures*, so the need to undertake works safely whilst also controlling the impact of works needs to be balanced carefully.
- 4.5.2. The **Code of Practice: Safety at Street Works and Road Works** sets out the proper arrangements for the signing, lighting, and guarding of works – this must be followed by all Promoters undertaking works on the highway.

The chart below shows traffic management (colour legend) for all works undertaken as a proportion of the total work in Years 1 -3.

**Traffic control used for work undertaken (% of total duration)**

	No Carriageway Incursion	Some Carriageway Incursion	Passive Traffic Control	Positive Traffic Control	Lane Closure	Road Closure
Y1 (2021/22)	11%	68%	6%	10%	2%	3%
Y2 (2022/23)	12%	62%	12%	7%	3%	3%
Y3 (2023/24)	16%	51%	16%	9%	4%	4%

The table below shows the % of total duration of all works undertaken in Years 1 -3 delineated by traffic management type and work category.

**Traffic control used for work undertaken (% of total duration) by work category**

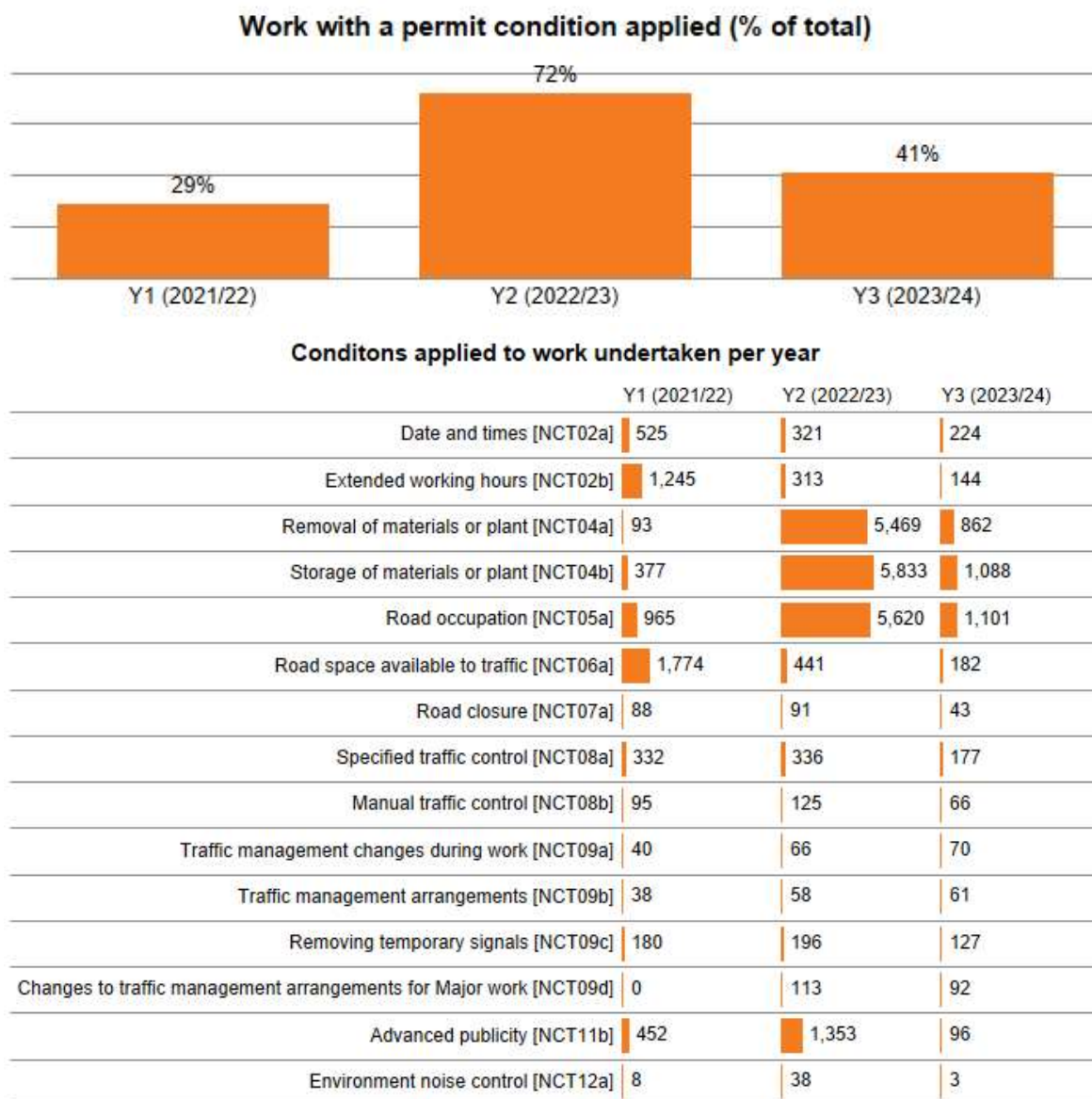
	No Carriageway Incursion	Some Carriageway Incursion	Passive Traffic Control	Positive Traffic Control	Lane Closure	Road Closure
Major	22%	32%	20%	12%	6%	9%
Standard	6%	77%	6%	9%	2%	0%
Minor	13%	73%	7%	5%	1%	0%
Immediate	8%	73%	5%	8%	2%	4%

## 5 Analysis of permit conditions

### 5.1 Use of permit conditions

- 5.1.1. The process of a Promoter applying for a permit allows the Council to make changes to the work and where necessary apply conditions to control and minimise the impact of the works, sometimes even before work starts, *for example advanced publicity of a road closure.*
- 5.1.2. Conditions available to the Council are based on the categories defined in the Statutory Guidance for Permit Conditions. This Guidance sets out the conditions that can be applied to permits and the potential parameters that can be associated to these conditions.
- 5.1.3. Analysis and evaluation for the use of conditions can be difficult to undertake as there are many variables that need to be taken into consideration, *such as the work methodology.* It can be impracticable to determine the criteria for a work and whether a condition could, or should, have been applied or not. Conditions that apply to all permits, *such as displaying a permit number on a site board,* are excluded from analysis.

The charts below show (top) the proportion of work undertaken with any permit condition applied and (bottom) the categories of conditions applied, per Year.





5.1.4. The Statutory Guidance for Permit Conditions allows for a non-defined condition to be agreed between the Council and a works promoter – this is called a local condition. No local conditions have been applied by the Council.

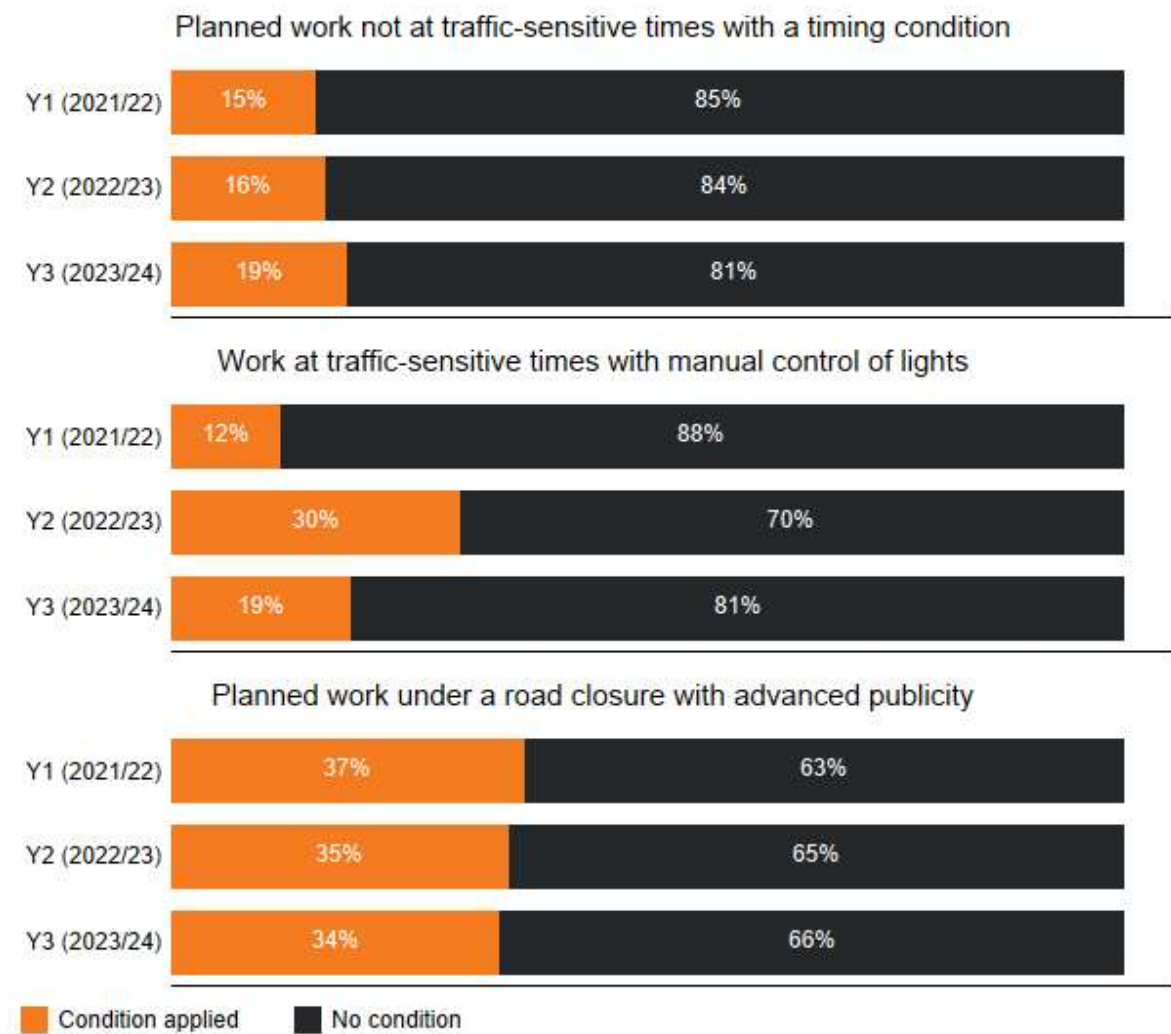
## 5.2 Benefits of conditions applied

5.2.1. It is difficult to effectively delineate work where a condition could *or may* be applied as relevant elements of the work are not specified within the data for analysis, *such as whether the work involved surplus spoil or materials or required a specific work methodology.*

5.2.2. There are however a few indicators that can be used to identify whether conditions are being applied to good effect, and therefore of benefit to the road user. These include:

- Planned work outside traffic-sensitive times (on a traffic-sensitive street) with a timing condition (NCT2a) to ensure compliance to this arrangement;
- Work at traffic-sensitive times (on a traffic-sensitive street) involving temporary traffic lights with a condition (NCT8b) to manually control the lights at specified times, *typically peak traffic times; and*
- Planned work under a road closure with advanced publicity of the work.

The charts below show the proportion of work with an applied condition (as detailed above) for work per Year.

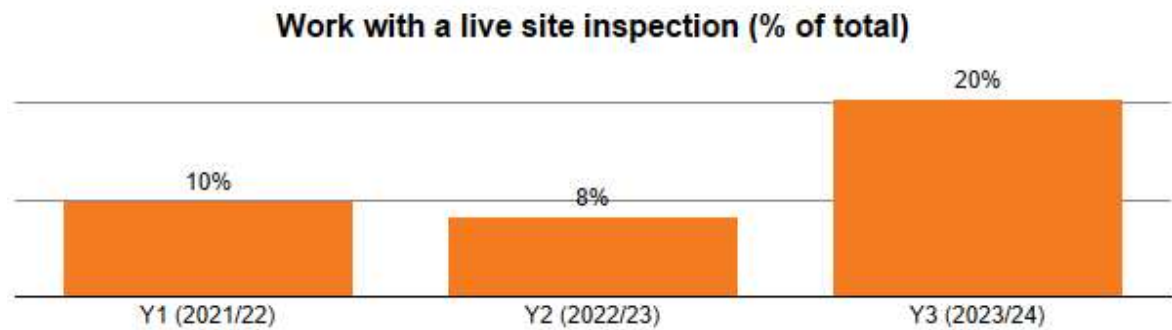


## 6 Analysis of permit compliance

### 6.1 Permit compliance inspections

6.1.1. Under a permit scheme the Council can undertake additional inspections during work for permit compliance to ensure that (a) work is being undertaken with a valid permit and (b) in accordance with the stated conditions (as applicable). The Council undertake all permit compliance inspections alongside their live site (work in progress) inspections. These inspections are not recorded as a permit compliance inspection in Street Manager unless an offence has been recorded.

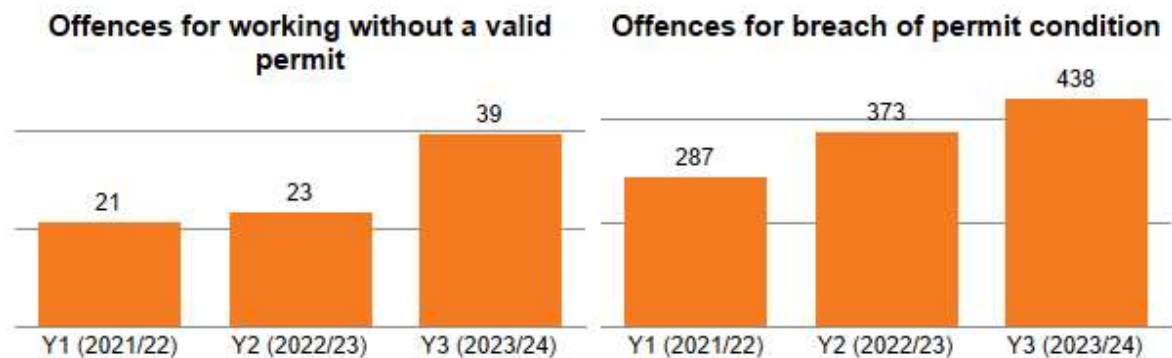
The chart below shows the proportion of work (% of total) per Year with a live site (work in progress) inspection.



### 6.2 Offences for working without a valid permit or breach of condition

6.2.1. A permit scheme introduced two new offences, with financial penalties for statutory undertakers, where there is a failure to comply.

The charts below show (top) the number of permit scheme offences, by their type, issued per Year and (bottom) the reason for permit offences, by the NCT code or other reason (where an NCT code has not been provided).



## 7 Analysis of parity treatment

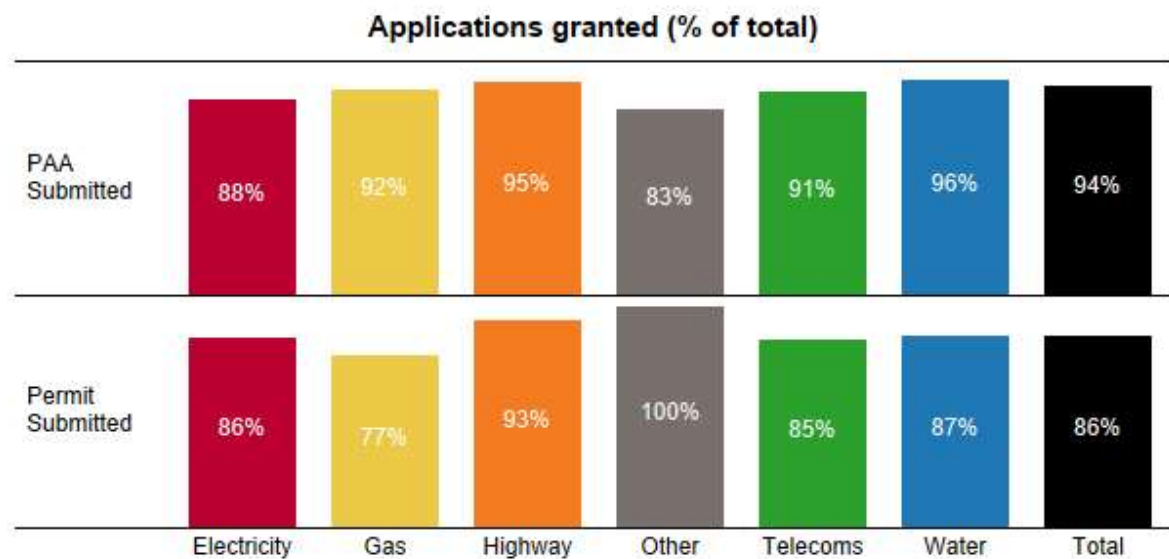
7.1.1. Section 40: Non-discrimination of the Permit Scheme Regulation state that the Council must apply the regulations (Parts 5 and 6) *without any discrimination between different classes of application for permits or for provisional advanced authorisation.*

7.1.2. Statutory Guidance defines this further as **parity treatment** with *each permit application received are treated equally regardless of the works' promoter .... and [Highway] works will be treated in the same way as any undertaker (except that they are not liable for the fees or sanctions).*

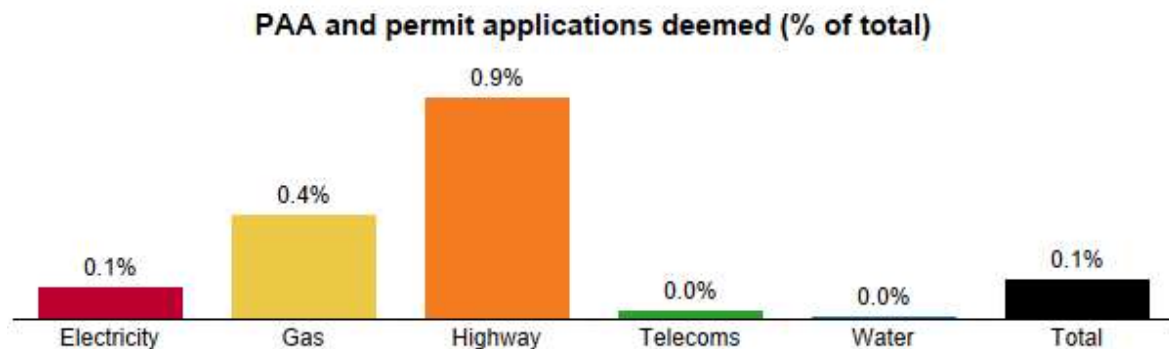
7.1.3. Parity treatment will be analysed using the following specific measures, show for each sector:

- Response to PAA and permit applications;
- Permit applications deemed (granted);
- Response to Promoter permit variations; and
- Variations issued by the Council.

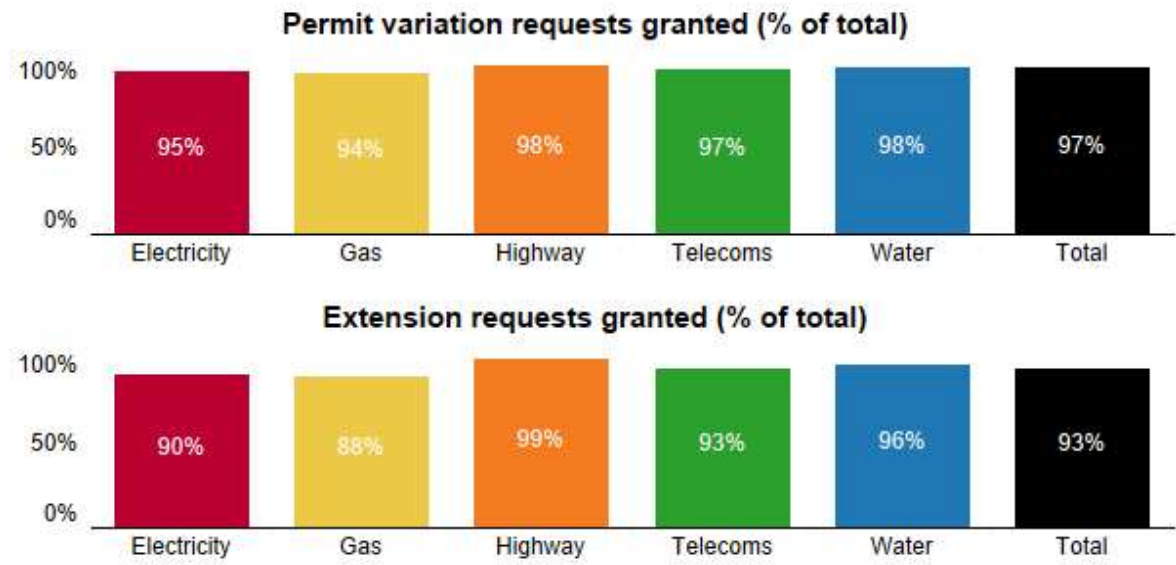
The charts below show applications granted (as a % of total received) by sector in Years 1 - 3. The charts do not include applications deemed (granted), superseded or cancelled before a response was given.



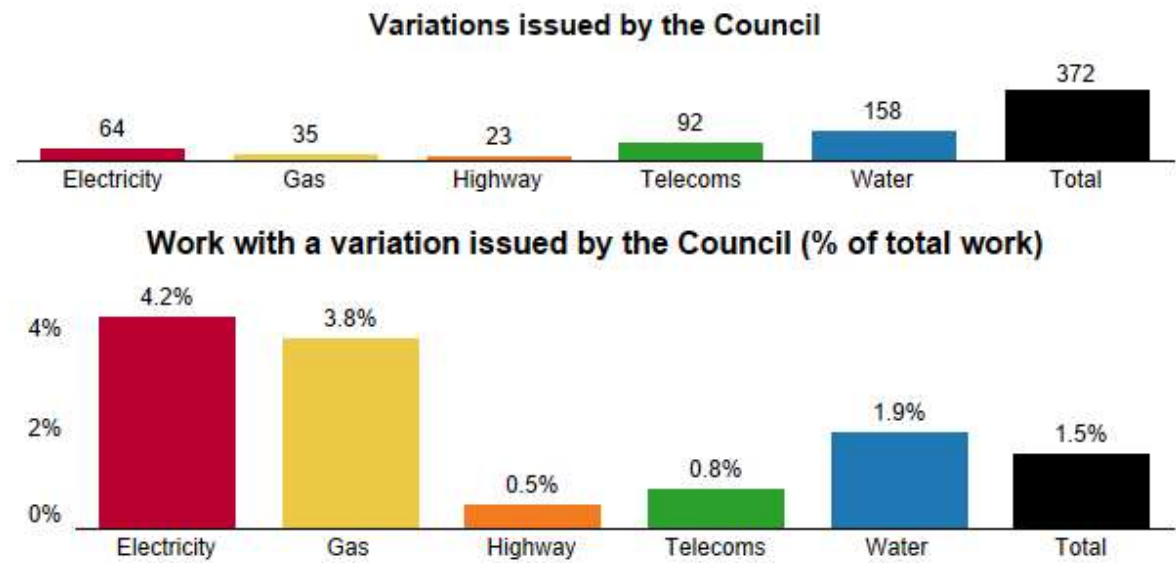
The chart below shows the % of PAA and permit applications (of total) that were deemed (granted) in Years 1 - 3. The charts do not include applications superseded or cancelled before a response could be given.



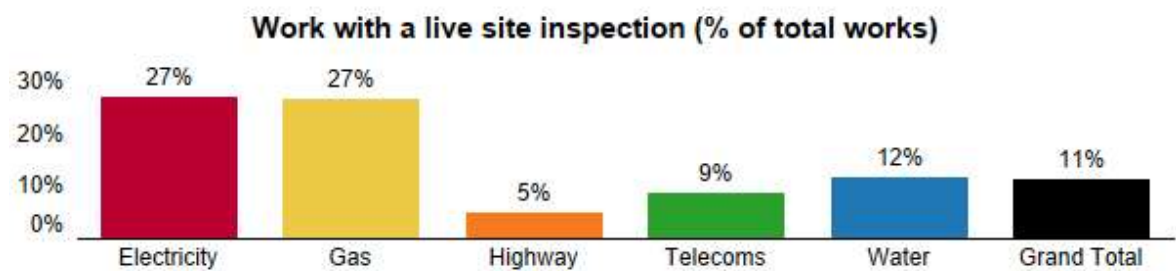
The charts below show the permit variation applications granted (as a % of total received) by sector in Years 1 - 3. The variations are delineated by requests for extensions and other variations. The charts do not include applications deemed (granted), superseded or cancelled before a response was given.



The charts below show (top) the number of variations issued to Promoters by the Council; and (bottom) the proportion of work with a variation issued by the Council in Years 1 - 3.



The chart below shows % of work undertaken with at least one live site inspection (work in progress), as a % of total works, by sector in Years 1 - 3.



## 7.2 Equality Impact Assessment

7.2.1. The Equality Act 2010 introduced the Public Sector Equality Duty, which requires all public bodies, including councils, to have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act;
- Advance equality of opportunity between people who share a protected characteristic and those who do not; and
- Foster good relations between people who share a protected characteristic and those who do not.

7.2.2. In consideration to this Duty an **Equality Impact Assessment** aims to prevent discrimination against people who are categorised as being disadvantaged or vulnerable within society. An Assessment will therefore:

- Demonstrate due regard for the provisions of the Public Sector Equality Duty;
- Identify possible negative impacts of decisions on individuals and **groups with protected characteristics** and plan mitigating action accordingly; and
- Identify additional opportunities to advance equality within policies, strategies, and services.

7.2.3. The table (below) shows **protected characteristic groups** with a potential impact and the nature of any impact to that group from the operation of a permit scheme.<sup>1</sup>

Protected Characteristic Group	Potential for Impact	Positive or Negative Impact of street works environment and street management regime
Care leavers*	No	Not applicable
Children in care*	No	Not applicable
Disability	Yes	Positive
Gender reassignment	Yes	Positive
Marriage or civil partnership	No	Not applicable
Pregnancy and maternity	Yes	Positive
Race	No	Not applicable
Religion or belief	No	Not applicable
Sexual orientation	No	Not applicable
Sex (gender)	Yes	Positive
Age	Yes	Positive

<sup>1</sup> Protected Characteristic Groups noted with an \* are Council specific.

## 8 Analysis of cost and benefit

### 8.1 Review of income from permit fees

- 8.1.1. The Permit Scheme Regulations allows the Council to charge a fee to recover the prescribed costs for the administration of a permit, a provisional advanced authorisation, and the variation (alteration) of a permit. These fees are applied to statutory undertaker works only, not for work for road purposes (highway authority work).
- 8.1.2. The regulations require that the Council (as a permit authority) consider whether the fee structure needs to be changed in light of any surplus or deficit, to only recover the prescribed costs. The table below shows the income, recoverable cost and balance (income – cost) per scheme year<sup>2</sup>.

Year	Income £	Recoverable Cost £	Balance £	Running Balance £
Y1 (2021/22)	160,751	202,006	-41,255	-41,255
Y2 (2022/23)	164,055	162,611	1,444	-39,810
Y3 (2023/24)	72,374	172,140	-99,766	-139,577

- 8.1.3. In Year 3 the Council sustained another deficit as the income was significantly less than the recoverable cost. This is attributed to the decrease in income from fees for applications because of decreasing work (refer to earlier section of this evaluation).
- 8.1.4. Overall, after Year 3 the Council are operating at a significant deficit with no other option than to evaluate the permit fee levels, taking into account revised work and application volumes, projected over the foreseeable future, together with any increased cost, including Council overhead costs and inflation.
- 8.1.5. The Council will seek to undertake this review and issue a variation to the Scheme by April 2025.

### 8.2 Impact of work

- 8.2.1. The societal impact of each work is estimated based on impact calculations derived from the **QUEUES AND DELAYS AT ROADWORKS (QUADRO)** model taking account of local traffic flow for different types of roads (refer to Evaluation methodology).
- 8.2.2. Whilst this impact is estimated, it should be accepted as a robust indicator of overall impact. Considering QUADRO is predicated only on carriageway impact, and a large volume of work also impact other forms of traffic, this indicator could be considered very conservative.
- 8.2.3. The estimated impact of work per Scheme year (work impacting the carriageway only) which forms the basis of the overall economic appraisal is £10,609, 128 in Year 1, £7,442,426 in Year 2 and 4,155,008. The decreasing impact values represent the decrease in works for each year as shown earlier in the evaluation.

### 8.3 Cost-benefit-analysis

- 8.3.1. A cost-benefit analysis (CBA) provides a framework within which the impacts of a scheme can be compared against the cost of setting up and operating the scheme. Historical works data provides a basis on which to evaluate the impact of works on motorists and the local economy, and to review the value of the scheme against the actual costs and revenues of operations of the scheme since implementation.

8.3.2. The approach to the CBA is as follows, with further detail within Annex A.

- Identify the scale and characteristics and quantify the scale of societal impact these works will have had to the residents and local economy, using the most detailed information available;
- Estimate the reduction in impact resulting from the permit scheme and quantify the social benefit of this reduction;
- Quantify the costs of operating the permit scheme; and
- Undertake the cost benefit analysis to determine the benefit to cost ratio and net present value delivered by the scheme.

### 8.3.2 Appraisal Results

8.3.3. The cost benefit analysis takes the benefits and costs from each year of operation and projects these into the future to provide a 25-year appraisal period as per DfT Guidance.

8.3.4. The cost and benefit streams are discounted using the standard discount rate of 3.5%, meaning that near term costs and benefits are valued more highly than those occurring later in the appraisal period.

Appraisal Metric	Value
Net Present Benefit of Scheme	£7,829,395
Net Present Cost of Scheme	£2,635,157
Net Presented Value of Scheme	£5,194,238
Benefit to Cost Ratio	2.97

8.3.5. The benefit to cost ratio (BCR) is a measure of value-for-money exhibited by a scheme. With a BCR of 2.97 the permit scheme can be defined as delivering greater benefit than it costs and classified as 'High Value for Money'.

8.3.6. An analysis of monetised costs and benefits includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect.

8.3.7. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Appraisal Metric	Value
Noise	
Local Air Quality	
Greenhouse Gases	490,360
Journey Quality	
Physical Activity	

<b>Appraisal Metric</b>	<b>Value</b>
Economic Efficiency: Consumer Users (Commuting)	2,228,664
Economic Efficiency: Consumer Users (Other)	3,342,996
Economic Efficiency: Business Users and Providers	2,140,880
Wider Public Finances (Indirect Taxation Revenues)	795,190
Present Value of Benefits (PVB)	7,829,395
Broad Transport Budget	2,635,157
Present Value of Costs (PVC)	2,635,157
<b>Net Present Value (NPV)</b>	<b>5,194,238</b>
<b>Benefit to Cost Ratio (BCR)</b>	<b>2.97</b>

### 8.3.3 Carbon Emissions

- 8.3.8. A component to the costed benefits is a reduction in carbon emissions. These emissions savings are driven by more efficient vehicle movements, and the avoidance of the 'stop-start' movements associated with works. QUADRO places a monetary value on emissions savings by applying a 'cost of carbon' to the amount of carbon generated because of works, such as additional fuel due to idling, or diversions.
- 8.3.9. Taking the average calculated works impact, the carbon emission generated by works within the area (as calculated within QUADRO) are valued at £439,720 (2010 prices), which represents around 6% of overall work impact cost.
- 8.3.10. The implied carbon emissions attributable to works in the area amounts to 6,234 tonnes. The improved efficiency of works under the permit scheme means that the scale of carbon emissions generated because of works may be expected to be reduced post-scheme implementation.
- 8.3.11. In line with the broader assumptions about permit scheme impacts, adopting the national permit scheme evaluation evidence as the basis for the reduction in works duration, scheme implementation would lead to estimated carbon emission savings of 337 tonnes CO<sub>2</sub> per year. To set this emission saving in context, using the typical emissions of new cars sold in the UK currently, this reduction amounts to an equivalent saving of over 280,000 annual car kms.



## 9 Annex A: Evaluation methodology

### 9.1 Period of analysis

- 9.1.1. Throughout this evaluation there is a reference to “**years**”. These are the Scheme operational years where the first year of the Scheme (Year 1) is between October 2021 and September 2022 (inclusive).
- 9.1.2. The operating years before the scheme came into legal effect are show as negative years, *i.e. Y-1 covers the period October 2020 to September 2021 (inclusive)*.

### 9.2 Defining Promoters

- 9.2.1. Within this evaluation Promoters can be defined by their sector, *e.g. water*. The Promoter type Highway Authority is included in this definition, *as works for road purposes*.
- 9.2.2. The sector Other includes other organisations who need to undertake work on the highway, *such as Network Rail*.

### 9.3 Source data for analysis

- 9.3.1. This evaluation uses data collected from both Street Manager and the Council’s system to process and record works. The data collected contains the content of notifications (events) sent between Promoters undertaking work, *such as utility companies*, and the Council.
- 9.3.2. Analysis of these notifications enables the Council to produce metrics for performance indicators and further measures. For some measures aggregating data for analysis does not provide an accurate picture of the results, for example for the analysis of duration for all work categories can provide a falsely inflated picture of changes over time. This evaluation therefore delineates many of the measures into sub-categories, *such as works category*, to provide a more accurate result and trend.
- 9.3.3. Many of the measures contained in this evaluation were analysed to ensure accuracy in the results. This level of analysis may not be included within this evaluation report; however, it should be accepted than any findings presented have been tested for certainty and any anomalies investigated and defined.

### 9.4 Work phases

- 9.4.1. In this evaluation work is analysed in logical phases. A work is typically identified by a work reference number, which often applies to multiple phases of work, for example a work reference number may contain the following individual phases:
- work with a temporary reinstatement;
  - follow-up work changing the temporary reinstatement to a permanent reinstatement;
  - defect work to rectify a fault with the permanent reinstatement.
- 9.4.2. To logically delineate work phases, a phase is identified from the initial application through to work completion notices within the same work reference. Therefore, the analysis shown for work in this evaluation is for a work phase, *i.e. the total works undertaken are the total work phases undertaken*.

## 9.5 Duration analysis and adjustment

- 9.5.1. Analysis of works duration is calculated using the dates provided within the work start and work end notifications, inclusive of these dates. As would be expected within a significant data-set from multiple different organisations spurious data can be found, such as work end dates before a work start date therefore giving a negative duration, or work with an incorrect year, thereby giving a significantly high duration. Whenever possible, these anomalies are identified and removed from the analysis to provide a more realistic result.
- 9.5.2. Since the introduction of the DfT's digital service, Street Manager, and associated regulatory changes in July 2020 it is possible to determine the timings more accurately and reliably from the works data. This means a work duration can be calculated by minutes instead of whole days. As such, analysis using Street Manager derived data provides a more realistic insight and result.
- 9.5.3. Analysis of total duration based on the notice dates (whole calendar day) and notice times shows that there can be noticeable differences between these two types of measure. For this evaluation, analysis of work duration and trend is predominantly based on dates of the work notices, not timings, as the pre-scheme historic data does not contain accurate timings. Any variations to this approach will be clearly defined in the report.

## 9.6 Economic cost-benefit-analysis

### 9.6.1 Appraisal methodology

- 9.6.1. A cost-benefit analysis (CBA) provides a framework in which the impact of a scheme can be compared against the cost of setting up and operating the scheme. Annual evaluation of the Permit Scheme CBA provides opportunity to review the value of the scheme with the benefit of the outturn scheme operating costs and revenues, updated estimates of the societal impact of work and to compare this not operating a permit scheme.
- 9.6.2. The approach to the permit scheme CBA is as follows:
- identify the scale and characteristics and quantify the scale of societal impact these works will have had to the residents and local economy;
  - estimate the reduction in impact resulting from the permit scheme and quantify the social benefit of this reduction;
  - identify the cost of setting up and operating the permit scheme; and
  - undertake the cost benefit analysis to determine the benefit to cost ratio and net present value delivered by the scheme.
- 9.6.3. The societal impact of each work is estimated based on impact calculations derived from the **QUEUES AND DELAYS AT ROADWORKS (QUADRO)** model. Originally QUADRO was developed for the DfT and designed to assess and monetize the impact of delays due to works. QUADRO is currently maintained by National Highways.
- 9.6.4. QUADRO captures loss of time to travellers, increased vehicle operating costs because of idling in queues and/or diversion, vehicle emissions and accident impacts. Impact modelling is based on local traffic flow data (within the Council's boundary), disaggregated by road type, to provide locally relevant impact values.

### 9.6.2 Promoter Costs

9.6.5. In addition to the costs of operating the permit scheme, it is important to recognise that there are costs borne by works promoters also in operating under the permit scheme. These will include:

- Permit Fee costs which represent a business cost to the promoter. Within the CBA this is treated as a business cost to the promoter, netted from overall scheme benefits. However, the transaction is effectively a transfer payment between promoter and the Council, so the payment is treated as a revenue and is subtracted from scheme operating costs.
- Additional administration costs in complying with the permit scheme.
- Costs related to changes in working practices such as greater use of traffic management or off-peak and weekend working.

9.6.6. Detailed promoter cost data has not been available, but in line with evidence gathered from other permit scheme evaluations and adopted as the default assumption in the National Permit Scheme Evaluation, an estimate of 20% of local authority operating costs relating to Statutory Undertaker works has been applied.

### 9.6.3 Assessing the scale and impact of work

9.6.7. To ensure the most rigorous analysis for the CBA, the Street Manager data from the most recent complete year has been used as the basis for estimating works impact costs and permit scheme benefits.

9.6.8. For the purposes of the CBA, works are disaggregated by type of traffic management, which has important implications on the scale of impact of those works on highway users. The remainder of the work involved no incursion into the carriageway and has been assumed to have no impact on road users. It should be noted that this is a conservative assumption as even non-carriageway works are likely to incur some impact, whether road users or on wider society.

9.6.9. The estimated impact of the works with incursion into the carriageway have been modelled using the QUEues And Delays and ROADworks (QUADRO). QUADRO was originally developed for the DfT and designed to assess and monetize the impact of delays due to works. Whilst no longer hosted by the DfT, the QUADRO model continues to be maintained, under the responsibility of National Highways, and is considered the most appropriate tool to quantifying the impact of works for this evaluation.

9.6.10. Having developed costs for every work type, each work within the data used for this evaluation has been assigned an impact cost, according to its characteristics and the duration of the work taken from the more robust data contained within Street Manager. This provides highly granular results, especially when compared with the typical aggregated CBA approach adopted in other scheme evaluation documents. The modelled impact of typical works in Wiltshire forms the basis of the benefits calculation.

9.6.11. These impact estimates include the following elements:

- Road user travel time (delay caused to consumer and business as a result of works)
- Road user vehicle operating costs (the impact of delay and diversion on vehicle operating costs for consumers and business)
- Accident costs
- Emissions costs (resulting from congested conditions and diversion)

- Indirect tax revenue (increased tax revenue to the exchequer because of higher fuel consumption)

9.6.12. Whilst QUADRO covers most of the standard monetised elements of work impact, an off-model adjustment was made to account for reliability impacts. DfT guidance recommends that this be captured through application of an uplift to journey time costs/benefits. The recommended uplift factor is 10-20%. A factor of 15% has been adopted for this evaluation to be consistent with this recommendation.

#### 9.6.4 Quantification of benefit of permit scheme

9.6.13. The benefits of the permit scheme are expected to be achieved through more efficient and better managed work events taking place compared to the patterns observed before scheme implementation. Relating observed changes directly to the scheme is complicated by the range of factors which influence work occurrences. For the CBA, the comparative scenario is one in which the permit scheme had not been implemented and is therefore by its very nature hypothetical and unobservable.

9.6.14. A national evaluation of permit scheme impacts was commissioned by the DfT in 2017<sup>ii</sup>. This study adopted a rigorous cross region evaluation of the observed pattern of roadworks under authorities with and without permit schemes. It concluded that the impact of work was typically 6.4%, which aligned closely with the default assumption of 5% works impact reduction previously adopted in assessments (DfT Permit Scheme Evaluation Guidance, 2016).

9.6.15. To ensure the most rigorous assessment of the impact of the permit scheme, the national evaluation estimate of 6.4% reduction in impact under a permit scheme has been paired with the impact cost estimate derived from the works.

9.6.16. The cost benefit appraisal requires that scheme benefits are appraised against scheme costs over the whole appraisal period, which in this case is recommended as being 25 years in the DfT permit scheme appraisal guidance.

9.6.17. Consequently, the benefits are projected forward over subsequent years, with impacts and benefits increasing in real terms to reflect growth in values of time, vehicle operating costs, accident savings and emissions costs.

#### 9.6.5 Scheme Operating Costs

9.6.18. Having established scheme benefits, these must be set against scheme costs to determine value for money. Permit scheme costs elements include the following:

- Setup costs
- Scheme operating costs (staff, consultants, maintenance/running costs)
- Scheme capital costs – IT equipment, software etc

9.6.19. Importantly, the permit scheme costs included within the appraisal are the additional costs of operating the permit scheme above those incurred previously incurred in delivering the council duties regarding work applications. By considering the incremental costs, this fairly compares the 'with permit scheme' scenario with the 'business as usual (i.e. no permit scheme) scenario.

9.6.20. Whilst the scheme has now been running for several years, the appraisal focuses on the projected costs of operation over the coming years, to align with the benefit estimate. The operating costs of the permit scheme principally relate to the additional internal staff resources required to process permit applications and additional operating factors to administer the permit scheme, such as finance payment and reconciliation, performance and evaluation. To identify an operational cost a proportion of each (relevant) role within the Councils network management service was assigned to permit scheme administration.

## 10 Annex B: Glossary and common terms

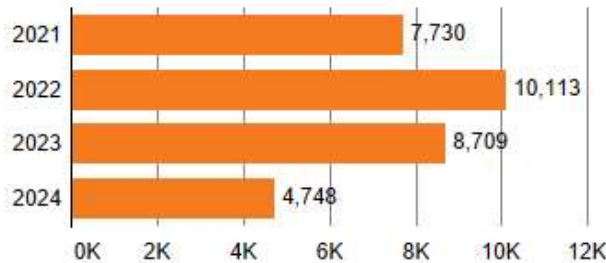
<b>Council</b>	Swindon Borough Council including their capacity as a Local Highways Authority.
<b>DfT</b>	Department for Transport
<b>Duration of work</b>	A works duration is calculated in calendar days based on the actual or proposed works start date and the actual or estimated works end date, inclusive of both days. Therefore, a works with an actual start date of 1st April and an actual end date of 5th April would equate to 5 days.
<b>Equality Act</b>	The Equality Act 2010 covers a wide range of responsibilities for the public sector including the Public Sector Equality Duty. The Act defines a number of protected characteristics and Section 149 in particular stipulates that <i>“local authorities need to have due regard to the need to eliminate discrimination, harassment and victimisation; and (positively) advance equality of opportunity”</i>
<b>EToN</b>	The Electronic Transfer of Notifications, the nationally agreed format for the transmission of information related to works between the Council and those undertaking works.
<b>HAUC</b>	The Highway Authorities and Utilities Committee.
<b>NRSWA</b>	New Roads and Street Works Act 1991.
<b>PAA</b>	Provisional Advanced Authorisation, which is a notice sent only in relation for Major works 3 months in advanced of the proposed start with a higher-level of detail for the intended works.
<b>Permit</b>	Permission sought by a Promoter to undertake works on the highway, in accordance with the Permit Scheme.
<b>Permit condition</b>	<p>The capability for the Council to apply conditions to a permit, and therefore the work, is one of the primary methods to control and coordinate works through a permit scheme.</p> <p>The conditions that can be applied are set out within Statutory Guidance, <i>each with a reference code comprising NCT with a unique number</i>, within the following categories: date and time constraints; storage of materials and plant; road occupation and traffic space dimensions; use of traffic management provisions; work methodology; consultation and publicity of works; and environmental considerations for noise.</p>
<b>Permit Scheme</b>	The Swindon Borough Council Permit Scheme
<b>Permit Scheme Regulations</b>	The Traffic Management Permit Scheme (England) Regulations 2007, Statutory Instrument 2007 No. 3372 made on 28 November 2007 and the Traffic Management Permit Scheme (England) (Amendment) Regulations, Statutory Instrument 2015 No. 958 made on 26th March 2015.

<b>Permit Variation</b>	The process to change an agreed permit to reflect current or proposed changes in the works.
<b>Promoter</b>	A person or organisation responsible for commissioning activities [works] in streets covered by the Permit Scheme - either an Undertaker or a participating Council as a highway or traffic authority.
<b>Protected characteristics</b>	<p>These are defined by Equality Act 2010 as:</p> <ul style="list-style-type: none"> <li>• disability</li> <li>• age</li> <li>• sex</li> <li>• sexual orientation</li> <li>• gender re-alignment</li> <li>• pregnancy and maternity</li> <li>• marriage/civil partnerships,</li> <li>• race</li> <li>• religion or belief</li> <li>• children and care leavers (additional category for Swindon)</li> </ul>
<b>Social Value</b>	<p>Social value is the quantification of the relative importance that people place on the changes they experience in their lives (socialvalueuk.org)</p> <p>Social Value is a broader understanding of value. It moves beyond using money as the main indicator of value, instead putting the emphasis on engaging people to understand the impact of decisions on their lives.</p>
<b>Statutory Guidance</b>	The Traffic Management Act (2004) Statutory Guidance for Permits.
<b>TMA</b>	Traffic Management Act 2004
<b>Undertaker</b>	Statutory Undertaker as defined within Section 48(4) of NRSWA
<b>Utilities</b>	Utility Infrastructure means poles, wires, cables, including fibre-optic cables, conduits, towers, transformers, pipes, pipelines or any other works, structures or appliances placed over, on or under land or water by a Utility Company.
<b>Work</b>	<p>Also referred to as an activity.</p> <p>Work that should be registered to the Council carried out by a statutory undertaker, as a street work, or for the Council, as a road work.</p>
<b>Work category</b>	<p>Every work is assigned a category, based on the following:</p> <p><b>Major</b> works are works that are 11 days or more in duration <u>or</u> require a temporary traffic regulation order, <i>such as a road closure</i>.</p> <p><b>Standard</b> works are non-Major works between 4-10 days.</p> <p><b>Minor</b> works are non-Major works with a duration of 3 days or less.</p> <p><b>Immediate</b> works are either emergency or urgent works that require an immediate start.</p>

# 11 Annex C: HAUC Performance Indicators

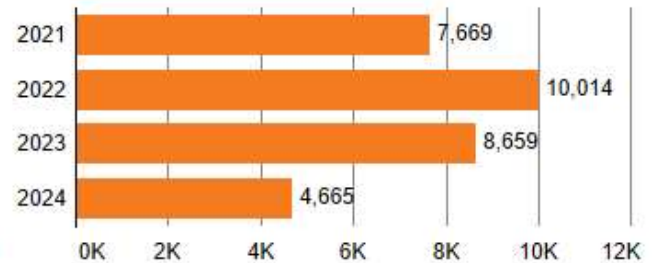
## TPI 1 Works Phases Started (Base Data)

This measure shows the works started by calendar year



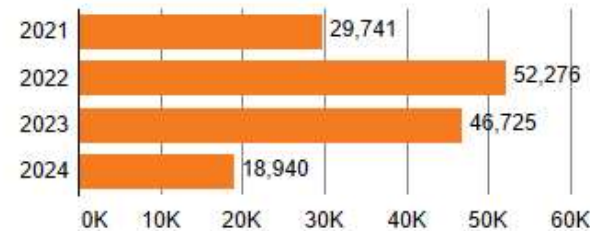
## TPI2 Works Phases Completed (Base Data)

This measure shows the number of works completed per calendar year



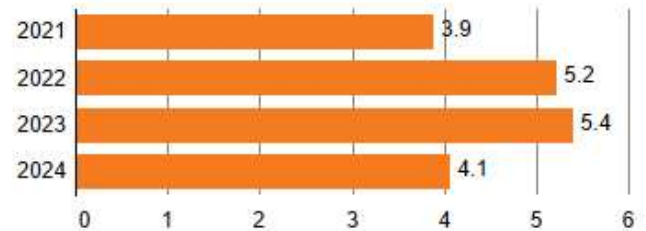
## TPI3 Days of Occupancy Phases Completed

This measure shows the duration (days using aggregated minutes) for works completed per calendar year



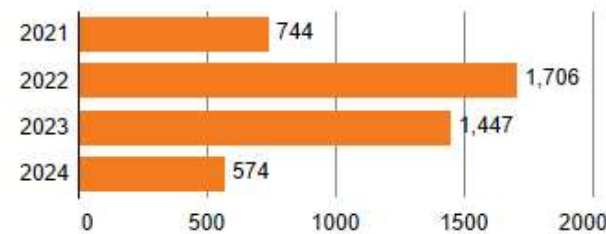
## TPI4 Average Duration of Works

This measure shows the average duration (days using aggregated minutes) for works completed per calendar year



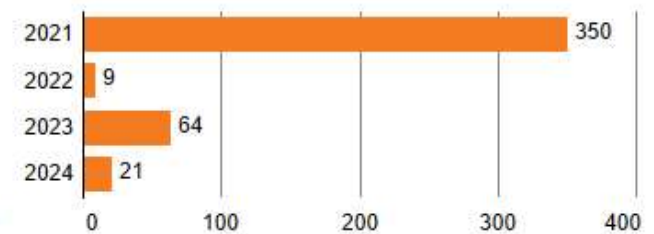
## TPI5 Phases Completed involving Overrun

This measure shows the total works completed that exceeding the planned duration per calendar year



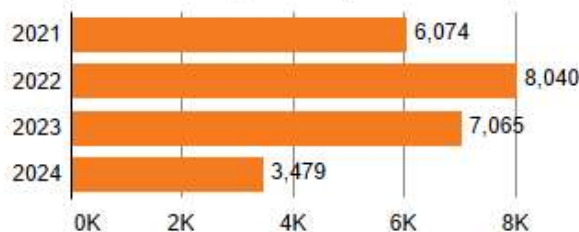
## TPI6 Number of deemed permit applications

This measure shows the deemed applications (PAA, permitti and permit-variation) per calendar year



## TPI7 Number of Phase One Permanent Registrations

This measure shows the total works completed with a permanent registration per calendar year



## 12 Annex D: References

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i As defined in the HAUC(England) Advice Note: Standard Permit Response Codes.

2010 is the default base year for the DfT's Webtag appraisal guidance. A common base year allows costs and benefits from different years to be compared in a common unit of account.

HUSSAIN, R.S. ... et al, 2016. Evaluating the road works and street works management permit scheme in Derby, UK. 95th Transportation Research Board Annual Meeting, 10<sup>th</sup>-14th January 2016, Washington DC

DfT Advice Note For local highway authorities developing new or varying existing permit schemes, June 2016.

ii

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/700502/permit-schemes-evaluation-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700502/permit-schemes-evaluation-report.pdf)