

# The Lancashire Permit Scheme for Road & Street Activities

**Year 8 Review, 2022-23** 



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#### 1 INTRODUCTION

## 1.1 Background

- 1.1.1 The Lancashire County Council (LCC) Permit Scheme went live on 2<sup>nd</sup> March 2015.
- 1.1.2 The operation of the first year of the Scheme was evaluated and reported in the 'Lancashire County Council 12 Month review, 2015-16'.
- 1.1.3 The purpose of the 12-month review was to:
  - Demonstrate a reduction in the duration of works.
  - Demonstrate a reduction in the number of Permit applications (through an increase in collaborative working).
  - Report the monitored Key Performance Indicators (KPI 1, KPI 2, KPI 3 & KPI 7).
  - Re-evaluate the Cost Benefit Assessment to show an economic return on the investment.
  - Report the annual scheme benefit to all road users.
- 1.1.4 The reduction in number of works across the network was not significant at 3%; but combined with a significant reduction in average works durations, resulted in an overall 17% reduction in number of days worked on the road network. This equated to nearly 28,000 fewer days worked on the network in the first year.
- 1.1.5 The financial benefit to road users of the Permit Scheme in Year 1 is calculated at £16.4M per annum. This saving equated to approximately 23% of the overall cost of works calculated in the CBA (£72.0M per annum total cost to road users).

## 1.2 Annual Reviews

- 1.2.1 The Council has commissioned a full review of the scheme at the end of each year since, with the following reports available:
  - 'The Lancashire Permit Scheme for Road & Street Activities, Year 2 Review 2016-17'
  - 'The Lancashire Permit Scheme for Road & Street Activities, Year 3 Review 2017-18'
  - 'The Lancashire Permit Scheme for Road & Street Activities, Year 4 Review 2018-19'
  - 'The Lancashire Permit Scheme for Road & Street Activities, Year 5 Review 2019-20'
  - 'The Lancashire Permit Scheme for Road & Street Activities, Year 6 Review 2020-21'
- 1.2.2 The financial benefit to road users of the Permit Scheme in years 2 to 6 was calculated at between £10.6M and £24M per annum; from a saving of 18,000 to 40,534 days compared with the Noticing baseline. Overall, the benefits have been maintained at or above the level achieved in Year 1 over the last 5 years.

## 1.3 Interim Reviews

1.3.1 The permit scheme regulations require the production of a full review of the scheme benefits, parity of operation and fee income every year for the first three years. Thereafter, a full review is required every third year. To date the Council has commissioned a review at the end of every year since the scheme went live, with the performance reported annually.

- 1.3.2 Interim reviews of the operation at the end of Years 7 and 8, have been carried out. Year 7 saw a slight increase in the total number of days worked compared with Year 6. However, this must be considered in the context of the very large increase in the number of works completed during Year 7. A 22% increase in the number of all works saw a less than 2% increase in total occupancy.
- **1.3.3** The financial benefit to road users of the Permit Scheme in Year 7 was calculated at between **£22.8M per annum**; from a saving of 38,564 days worked compared with the Noticing baseline.
- 1.3.4 This report presents the results of the Year 8 interim review.
- 1.3.5 A full review of scheme operation and costs over the three-year period March 2021 to February 2024 will be presented at the end of Year 9.

#### 2 SCHEME OBJECTIVES

## 2.1 Key objectives

- 2.1.1 The objectives as set out in the 'The Lancashire Permit Scheme for Road & Street Activities' scheme document are:
  - 1. Reduce occupation of the highway to benefit all road users.
  - 2. Obtain greater control of all activities on the public highway.
  - 3. Minimise/avoid/manage delays to all road users.
  - 4. Enhance co-ordination of all activities on the highway.
  - 5. Achieve an improvement in air quality.
  - 6. Enhance safety of all road users at road and street activities.
  - 7. Reduce potential incidents/accidents at road activities.
  - 8. Improve public perception of managing road activities.
  - 9. Enhance reliability of journey times.
  - 10. Enhance journey experience.
  - 11. Reduce long-term damage to the highway asset.
  - 12. Encourage collaborative activities between all activity promoters.
  - 13. Enhance reliability of activities taking place at a particular time, especially on the strategic road network.
  - 14. Promote best practices across the North West.
  - 15. Promote common activity practices across the region to ensure ease of operation for activity promoters.
  - 16. Enhanced cross-boundary co-operation.
  - 17. Demonstrate parity for all activity promoters.
  - 18. Reduce instances of customer complaints regarding road and street activities.
  - 19. Reduce the impact of noise on residents by having greater control of timing of activities.
- 2.1.2 Many of these objectives are subjective in nature, but where they can be objectively evaluated, the annual review will report on the impact towards achieving the stated objectives, for example:
  - Reduce occupation of the highway to benefit all road users.
  - Minimise/avoid/manage delays to all road users by reducing occupation of the highway and ensuring the most appropriate traffic management is used.
  - Encourage collaborative activities between all activity promoters.
  - Demonstrate parity for all activity promoters.

- 2.1.3 Others will require to be evaluated over several years to identify changes and progress towards the objective, for example;
  - Improve safety for all road users by driving down non-compliance during inspections and FPN rates for signing and lighting failures, for example.
  - Reduce the impact of noise on residents by having greater control of timing of activities.
  - Enhance reliability of journey times.
  - Enhance reliability of activities taking place at a particular time, especially on the strategic road network.

#### 3 PERMIT APPLICATIONS

## 3.1 Methodology

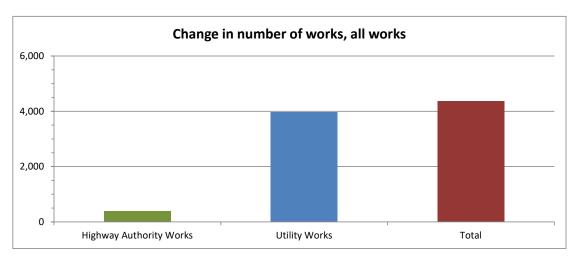
- 3.1.1 Data sources available for the Year 8 review are:
  - Permit Scheme work stops notices, February 2022 February 2023 (Symology system).
  - Key Performance Indicator reports February 2022 February 2023 (Symology system).
  - TPI reports; days of occupancy, average duration of works, overrun days, FPN given.
- 3.1.2 This review will assess the year-on-year change in the number of Permit applications and to review the breakdown of key metrics. The purpose of the review is to quantify the benefit of the Permit Scheme in terms of a reduction in number of days worked on the road network.

## 3.2 All works

- 3.2.1 The following series of charts and tables present a comparison of the Year 8 performance against the previous year Year 7 and the first year of operation.
- 3.2.2 The total number of works completed and a breakdown by highway authority and utility company is shown in Table 1 and the accompanying chart.

Year 1 Year 7 Year 8 Diff PROMOTER TYPE 2015-16 2021-22 2022-232 Yr 8 - Yr 7 Highway Authority Works 2,116 974 1,368 394 **Utility Works** 26,176 34,045 38,018 3,973 Total 28,292 35,019 39,386 4,367

Table 1 Number of works completed



- 3.2.3 39,386 works were completed during Year 8, an increase of over 12% compared with the previous year. This follows a 22% increase in works completed in Year 7.
- 3.2.4 Prior to Year 7, the maximum number of works completed in a single year was 30,355. The number of works completed in each year is shown in Figure 1.

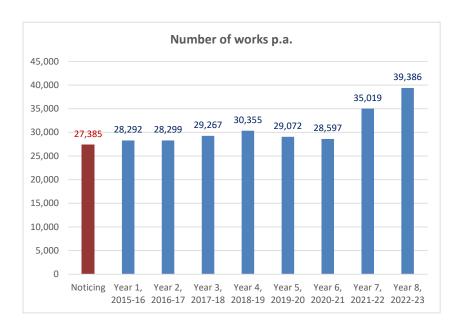
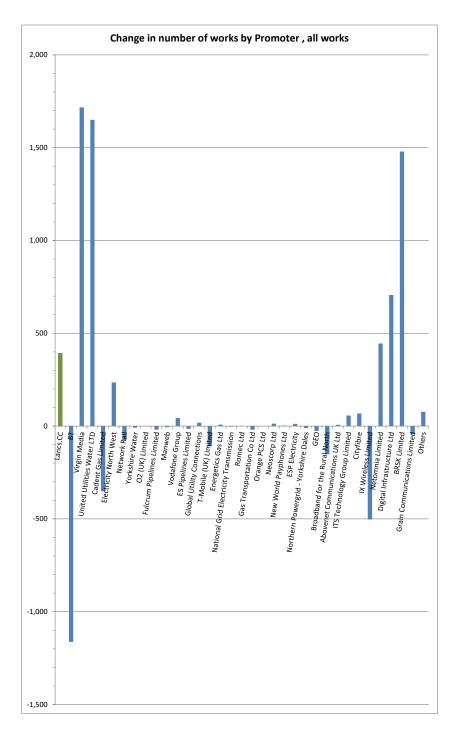


Figure 1 Number of works completed in each year

- 3.2.5 This increase follows a slight reduction in works throughout 2020, corresponding with the COVID-19 lockdown measures. The increase since 2021 is driven by increases by telecoms works promoters and by United Utilities Water Ltd.
- 3.2.6 The number of highway works increased again in Year 8, following fewer than 1,000 work recorded as complete during Year 7. However, the number of highway works completed is still significantly lower than recorded as complete during the early years of the scheme.
  - Recommendation Yr 08 01 (continued from Yr 07-01): Review highway works to identify if all works requiring a permit are recorded correctly in the system.
- 3.2.7 The change in number of Permit applications by works promoter is presented in Table 2 and the accompanying chart.

Table 2 Change by works promoter

PROMOTER	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7
Lancs.CC	2,116	974	1,368	394
ВТ	6,482	9,117	7,954	-1,163
Virgin Media	2,518	2,679	4,396	1,717
United Utilities Water LTD	9,662	12,825	14,475	1,650
Cadent Gas Limited	3,396	2,905	2,554	-351
Electricity North West	3,240	2,846	3,081	235
Network Rail	152	216	141	-75
Yorkshire Water	94	141	132	-9
O2 (UK) Limited	10	2	1	-1
Fulcrum Pipelines Limited	57	23	4	-19
Manweb	45	42	36	-6
Vodafone Group	193	87	130	43
ES Pipelines Limited	51	27	12	-15
Global Utility Connections	47	49	67	18
T-Mobile (UK) Limited	42	202	93	-109
Energetics Gas Ltd	28	6	14	8
National Grid Electricity Transmission	1	4	1	-3
Romec Ltd	9	15	16	1
Gas Transportation Co Ltd	26	27	8	-19
Orange PCS Ltd	5			
Neoscorp Ltd	2	45	58	13
New World Payphones Ltd	7	4	7	3
ESP Electricity	8	11	23	12
Northern Powergrid - Yorkshire Dales	101	85	74	-11
GEO		47	21	-26
Broadband for the Rural North		178	26	-152
Abovenet Communications UK Ltd			7	7
ITS Technology Group Limited		17	74	57
Cityfibre		417	485	68
IX Wireless Limited		742	239	-503
Netomnia Limited		444	889	445
Digital Infrastructure Ltd			706	706
BRSK Limited		518	1,997	1,479
Grain Communications Limited		92	48	-44
Others		165	242	77
, Total	28,292	34,952	39,379	4,427



- 3.2.8 The data shows a further large increase in the number of United Utilities works completed a 13% increase compared with Year 7. United Utilities works account for almost 14,500 works in Year 8. Following an increase of over 3,000 works the previous year, UU works now account for 37% of all works completed by external works promoters.
- 3.2.9 BT works completed in Year 8 reduced by 13% or 1,163 fewer works this follows a near 2,000 increase in the number of works completed in Year 7.
- 3.2.10 Year 8 shows a continued increase in the number of works completed by telecoms works promoters; increasing to 17,175, a 17% increase compared with Year 7. This follows a 36% increase recorded in Year 7 increasing from 10,199 in Year 6 to 14,708.

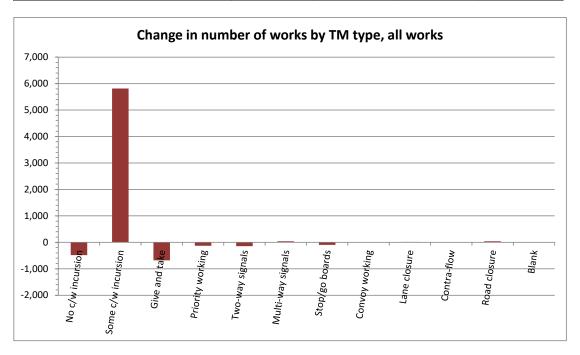
Table 2b Number of by telecoms work promoters

TELECOMMS. PROMOTERS	Year 1	Year 7	Year 8	Diff
	2015-16	2021-22	2022-232	Yr 8 - Yr 7
Number of works completed	9,306	14,708	17,175	2,467

- 3.2.11 Year 8 saw a large increase in the number of works completed by Virgin Media, Netomnia Limited, Digital Infrastructure Ltd and BRSK Limited.
- 3.2.12 Table 3 and the accompanying chart presents a comparison of the change in number of all works applications by traffic management type.

Table 3 Number of applications by traffic management type

TRAFFIC MANAGEMENT TYPE	Year 1	Year 7	Year 8	Diff
	2015-16	2021-22	2022-232	Yr 8 - Yr 7
No c/w incursion	6,784	2,427	1,943	-484
Some c/w incursion	8,836	16,704	22,517	5,813
Give and take	5,441	6,488	5,805	-683
Priority working	334	310	180	-130
Two-way signals	3,111	3,526	3,380	-146
Multi-way signals	1,045	2,851	2,890	39
Stop/go boards	730	438	340	-98
Convoy working	12	1	1	
Lane closure	268	417	433	16
Contra-flow	7	17	19	2
Road closure	1,499	1,840	1,878	38
Blank	225			
Total	28,292	35,019	39,386	4,367

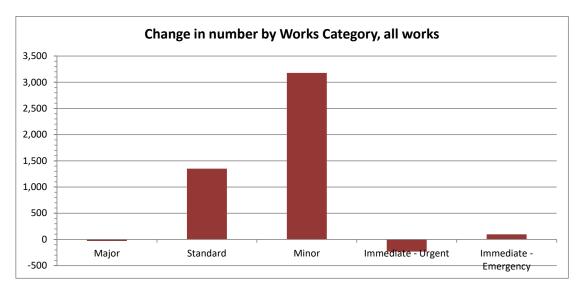


3.2.13 Year 8 shows a very large increase in the number of works operating with some carriageway incursion, an additional 5,418 works or 35% increased compared with the

- previous year. The number of works operating with the other tm types have reduced slightly.
- 3.2.14 The total number of completed works permits by works category is shown in Table 4 and the accompanying chart.

Table 4 Applications by works category

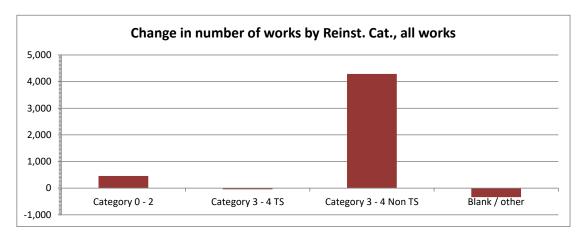
WORKS STOPPED	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7
Major	1,595	1,604	1,574	-30
Standard	3,340	3,391	4,743	1,352
Minor	13,433	19,112	22,291	3,179
Immediate - Urgent	8,127	9,357	9,125	-232
Immediate - Emergency	1,572	1,555	1,653	98
Intention to Issue Licence	225			
Total	28,292	35,019	39,386	4,367



- 3.2.15 Year 8 shows an increase in the number of Standard and Minor works completed, accounting for almost all of the additional works completed this year.
- 3.2.16 The increase in short duration Minor and Standard works and works operating under some carriageway incursion ties in with the increase in telecoms works recorded in the last two years.
- 3.2.17 The total number of works completed by reinstatement category type is shown in Table 5 and the accompanying chart.

Table 5 Number by reinstatement category type

All works	28,292	35,019	39,386	4,367
Blank / other	548	583	247	-336
Category 3 - 4 Non TS	15,942	20,727	25,016	4,289
Category 3 - 4 TS	5,338	6,432	6,387	-45
Category 0 - 2	6,464	7,277	7,736	459
REINSTATEMENT CATEGORY	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7



- 3.2.18 The recent increase in works is predominantly on Category 3 and 4 Non-TS streets. Again, this ties in with the increase in telecoms works, where a large proportion will be undertaken in residential streets.
- 3.2.19 Table 6 shows a comparison of the average works duration for all works.

Table 6 Total occupancy, all works

Total number of days worked	133,791	123,023	137,779	14,756
Average duration (days)	4.7	3.5	3.5	
DURATION	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7

3.2.20 The increase in total occupancy (total number of days worked) is consistent with the increase in number of works completed – a 12.5% increase in number of works and the total number of days worked. The average duration of works remains at 3.5 days in Years 7 and 8.

Table 7 Average works duration by works category

Year 8, 2022-23, Duration by works category

22,053	27,170	45,555	35,152	7,849
14.0	5.7	2.0	3.9	4.7
MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)

Year 7, 2021-22, Duration by works category

19,825	22,464	38,286	35,612	6,836
12.4	6.6	2.0	3.8	4.4
MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)

Difference, Year 8 - Year 7

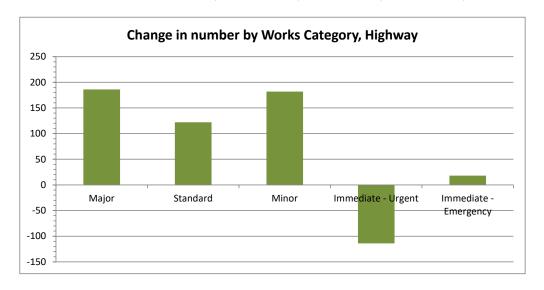
MAJOR	STANDARD	MINOR	(URGENT)	(EMERG.)
1.6	-0.9		0.1	0.3
2,228	4,706	7,269	-460	1,013

# 3.3 Highway works

3.3.1 The total number of completed works permits by works category is shown in Table 8 and the accompanying chart.

Year 1 Year 7 Year 8 Diff WORKS STOPPED 2015-16 2021-22 2022-232 Yr 8 - Yr 7 Major 768 238 424 186 Standard 574 242 364 122 Minor 443 177 359 182 Immediate - Urgent 271 157 63 -114 Immediate - Emergency 43 46 64 18 Intention to Issue Licence 225 Total 974 1,368 394 2,116

Table 8 Highway works by category



- 3.3.2 Following an increase in the number of Immediate Urgent works between years 4 and 6, Year 8 has seen a reduction in number completed. The other categories show similar pro rata increases.
- 3.3.3 Table 9 shows a comparison of the average works duration for highway works.

Table 9 Total occupancy, highway works

DURATION	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7
Average duration (days)	12.8	7.5	8.6	1.1
Total number of days worked	27,119	7,312	11,794	4,482

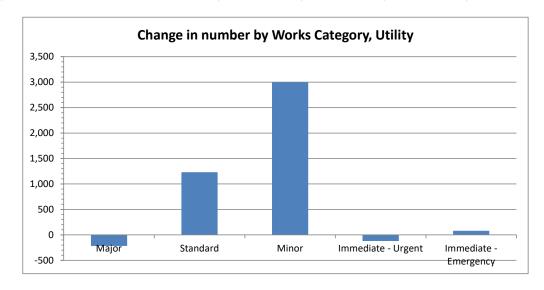
3.3.4 While the average duration has increased compared with the previous year, this is a reflection of the increase in the number of longer duration Major and Standard works.

## 3.4 Utility works

3.4.1 The total number of external works promoter works completed by category is shown in Table 10 and the accompanying chart.

Year 1 Year 7 Year 8 Diff WORKS STOPPED 2022-232 2015-16 2021-22 Yr 8 - Yr 7 Major 827 -216 1,366 1,150 Standard 2,766 3,149 4,379 1,230 Minor 12,990 18,935 21,932 2,997 Immediate - Urgent 8,064 9,086 8,968 -118 1,509 1,589 Immediate - Emergency 1,529 80 Other 26,176 34,045 38,018 Total 3,973

Table 10 Utility works by category



- 3.4.2 Utility works show a large increase in the number of Minor works completed in Year 8. The number of Minor works has almost doubled since the first year of operation in 2015.
- 3.4.3 Table 11 shows a comparison of the average works duration for utility works.

Table 11 Total occupancy, utility works

DURATION	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7
Average duration (days)	4.1	3.4	3.3	-0.1
Total number of days worked	106,672	115,711	125,985	10,274

3.4.4 The average duration for utility works has continued to reduce year on year, with the 3.3-day average recorded in Year 8 the lowest since the scheme began. This will be a result, in part, of the large number of additional short duration Minor works.

#### 3.5 Scheme Benefit

3.5.1 Figure 2 presents the number of works per annum in years 1, 7 and 8.

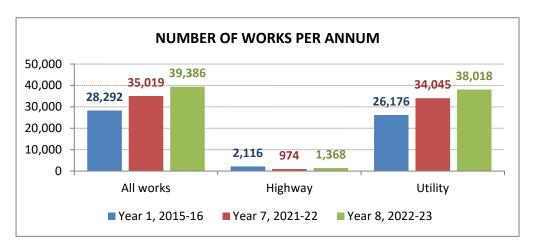


Figure 2 Number of works per annum

- 3.5.2 Figure 2 shows a further large increase in the total number of works recorded following the increase recorded in Year 7. The number of utility works completed has increased by 15% in Year 8, following a 25% increase in Year 7. Prior to this, the number of utility works was generally consistent, with only small fluctuations between years evident.
- 3.5.3 Figure 3 presents a comparison of the average duration of works.

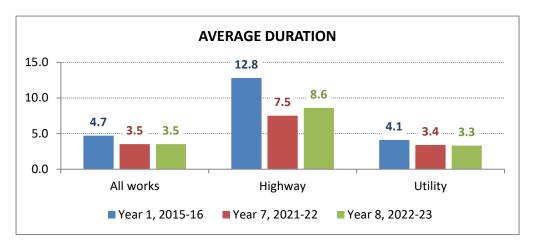


Figure 3 Average duration of works

- 3.5.4 This figure demonstrates the steady downward fall in average duration for all promoters. The small increase in average duration for highway works is a result of the increase in the number of longer duration Major and Standard works last year.
- 3.5.5 Figure 4 presents a comparison of the total number of days worked.

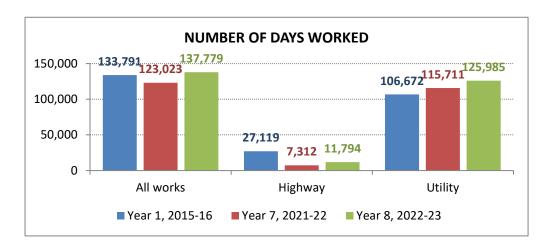


Figure 4 Number of days worked per annum

- 3.5.6 Whilst the total number of days worked has increased from Year 7, this has to be considered in the context of a further very large increase in the number of works completed during Year 8. A 12% increase in the number of all works resulted in the same percentage increase in total occupancy.
- 3.5.7 The benefit of the scheme is assessed against the benchmark prior to the introduction of the Permit Scheme. Year 8 shows a 23,808 reduction in number of days worked compared with the Noticing baseline (137,779 days compared with 161,587 days).
- 3.5.8 The CBA business case calculated the cost per day for each traffic management type on each street type. Since the majority of the reduction in days worked numbers is accounted for across all traffic management types, the financial benefit to road users of the Permit Scheme in Year 8 is calculated as:
  - Average monetary cost of works per day, £592 (source: CBA report 2010 prices, average cost of impact for all works involving some form give & take traffic management)
  - Number of days saved under Permit Scheme, 23,808
  - Monetary benefit to road users, £14.1M per annum
- 3.5.9 This saving equates to approximately 20% of the overall cost of works calculated in the CBA (£72.0M per annum total cost to road users).
- 3.5.10 The 15% reduction in number of days worked since Noticing is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.

#### 4 KPI MONITORING

#### 4.1 Introduction

- 4.1.1 The four Key Performance Indicators committed for inclusion in the annual review are;
  - **KPI 1**, the number of Permit and Permit Variation applications received, and a breakdown of the number granted and refused
  - KPI 2, the number of conditions applied by condition type
  - KPI 3, the number of approved Permit variations (extensions)
  - KPI 4, the number of early starts agreed
  - **KPI 7**, the number of inspections carried out to monitor conditions
  - TPI 1-9 & 13, TPI occupancy and co-ordination report
- 4.1.2 The above data should be presented separately for highway authority and utility company applications to demonstrate parity in the application of the Scheme.

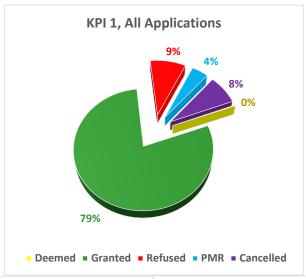
## 4.2 KPI review

- 4.2.1 **KPI 1** the number and proportion of Permit and Permit Variation applications received and refused; a breakdown of refusal rate is presented below.
- 4.2.2 Table 8 and Figure 4 shows the breakdown of number of permit applications and permit variation requests received and the refusal rate.

Table 12 KPI 1, Permit and Variation applications received and refused

KPI 1: Permit & Permit Variation Applications	Received	Granted	Refused	Deemed	PMR	Cancelled	% Refused
Highway authority	1,430	1,260	84	12	36	38	5.9%
Utility	56,193	44,204	5,033	107	2,363	4,486	9.0%
ALL	57,623	45,464	5,117	119	2,399	4,524	8.9%

- 4.2.3 The refusal rate for permit applications has remained consistent at 9% overall.
- 4.2.4 The number of utility applications refused is very similar to last year, at 5,033 compared with 5,022 in Year 7, and a similar refusal rate at 9%.
- 4.2.5 84 highway authority applications were refused in Year 8. The refusal rate has increased to 6% from 3%.
- 4.2.6 The number of deemed applications has increased from 47 in Year 7 to 119 last year; 12 for highway promoter applications and 107 for utility promoters.
- 4.2.7 The majority of deemed applications occurred in Quarter 3 of 2022-23. This includes the Christmas holiday priod.



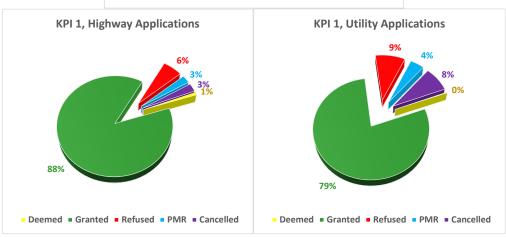


Figure 5: KPI 1, Permit and Variation Applications

4.2.8 14% of all permits granted were subsequently cancelled or never started in Year 8. The total number of permits cancelled and the split between highway and utility permits is very similar to previous years.

Table 13 Permits granted but cancelled or never started

PROMOTER	Permits Granted	Cancelled/Never Started	%
Highway authority	1,260	310	24.6%
Utility	44,204	6,142	13.9%
ALL	45,464	6,452	14.2%

- 4.2.9 The above permits have been included in the assessment of staff resource and cost to process as staff resource has been allocated to process and a permit fee charged following granting.
- 4.2.10 **KPI 2** the number of conditions applied by condition type; a breakdown of the number of conditions applied by condition type for highway and utility permit applications.
- 4.2.11 The number of conditions applied to highway and utility permits is shown in Table 14 and Figure 6.

**Table 14 Number of conditions applied** 

All Conditions	Utility	Highway	All
TOTAL	46,393	1,011	47,404
	98%	2%	

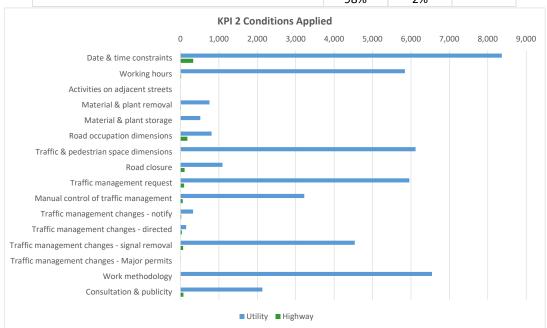


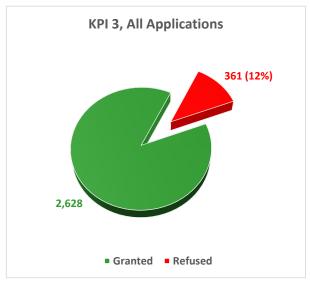
Figure 6: KPI 2, Permit Conditions

4.2.12 **KPI 3** — number of approved extensions; the following figures show the number of extensions granted and refused, for all promoters, and separately for highway authority applications and for statutory undertakers.

Table 15 KPI 3, Number of extension requests refused

KPI 3: Duration Extension Requests	Received	Refused	%
Highway authority	79	8	10.1%
Utility	2,910	353	12.1%
ALL	2,989	361	12.1%

- 4.2.13 The number of applications to extend permit duration reduced from a high in Year 7, reducing from 4,158 to 2,989.
- 4.2.14 The refusal rate has increased from 3% to 12%. The refusal rate is similar for highway and utility requests.



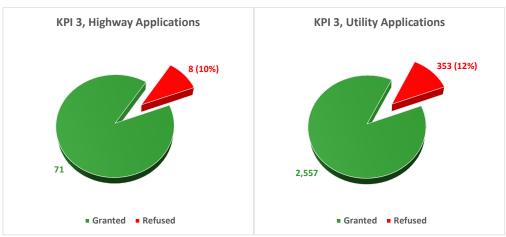


Figure 6: KPI 3, Permit Extensions

- 4.2.15 KPI 4 the Number of Early Start Requests.
- 4.2.16 The number of early start requests received is shown in Table 16.

Table 16 KPI 4, Number of early starts agreed

Promoter	Early Starts Agreed
Highway authority	108
Utility	1,675
ALL	1,783

- 4.2.17 The number of early starts agreed in Year 8 is 1,783; 1,675 of these were for Utility works.
- 4.2.18 **KPI 7** the Number of Inspections carried out to monitor conditions.
- 4.2.19 No permit condition inspection data was provided for Year 8.

Recommendation Yr 08 – 02: Review system reporting to identify if permit condition inspections are recorded correctly.

4.2.20 In the absence of permit inspection records, the number of FPN issued has been reported to provide a measure of non-compliance found.

4.2.21 Figure 7 shows 112 FPN were given to external works promoters for working without a valid permit and 485 for a breach of permit conditions. Overall, 1,719 FPN were given in Year 8.

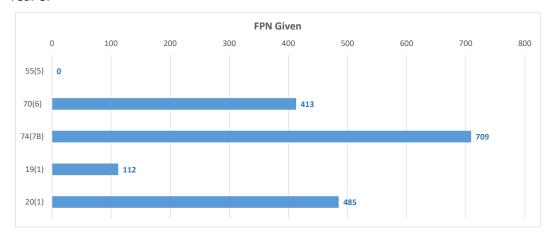


Figure 7: Number of FPN Given

4.2.22 The number given by works promoter is shown in Table 17. For most promoters the number of FPN received is fewer than 5% of permits granted.

Table 17 Number of FPN given

	FPN's Given				Permits			
	55(5)	70(6)	74(7B)	19(1)	20(1)	Total	Granted	%
BT [30]	0	130	147	21	42	340	9,649	4%
Cadent Gas Limited [10]	0	17	63	24	110	214	3,835	6%
Electricity North West [7005]	0	7	24	6	81	118	3,621	3%
DIGITAL INFRASTRUCTURE LTD [7518]	0	25	13	0	5	43	220	20%
United Utilities Water Limited [9102]	0	37	233	45	208	523	14,682	4%
Virgin Media [7160]	0	77	119	5	6	207	4,804	4%
BRSK LIMITED [7527]	0	82	42	3	3	130	2,630	5%
Others	0	38	68	8	30	144	4,763	3%
TOTAL	0	413	709	112	485	1,719	44,204	

## 4.3 TPI review

- 4.3.1 The TPIs reported are;
  - TPI 1, number of works phases started
  - TPI 2, number of works phases completed
  - TPI 3, days of occupancy
  - TPI 4, average duration of completed works phases
  - TPI 5, works phases completed after the reasonable period
  - TPI 6, number of overrun days
  - TPI 7, number of phase 1 registrations
  - TPI 8, number of phase 1 permanent registrations
  - TPI 9, incorrectly timed notices

- TPI 13, early start agreements
- 4.3.2 The analysis of the key TPI statistics are presented in Table 18; for example, proportion of all works completed after the reasonable period and the proportion of permanent registrations completed at phase 1.

**Table 18 Analysis of Key TPI** 

	Proportion of Phases Completed to Started (2/1)	Proportion Completed After Reasonable Period (5/1)	Overrun Days as Proportion Phases Started (6/1)	Permanent Registrations as Proportion of Phase 1 Registrations (8/7)	Early Starts as Proportion of Works Phases Started (13/1)
Cadent Gas Limited [10]	101.1%	1.4%	3.9%	96.7%	13.9%
Highways England [11]	92.9%	14.3%	442.9%	-	21.4%
TRANSPORT FOR LONDON [20]	100.0%	0.0%	0.0%	0.0%	14.3%
BT [30]	100.0%	0.6%	1.1%	95.4%	12.1%
CABLE AND WIRELESS UK [70]	-	-	-	-	_
LANCASHIRE COUNTY COUNCIL [2371]	83.5%	9.0%	1090.8%	0.4%	23.2%
Blackpool borough council [2373]	100.0%	0.0%	0.0%	33.3%	0.0%
Northern Powergrid (Yorkshire) plc [7001]	108.8%	0.0%	0.0%	100.0%	0.0%
ELECTRICITY NORTH WEST [7005]	99.7%	0.6%	1.6%	97.8%	13.3%
SCOTTISH POWER (MANWEB) [7008]	92.0%	4.0%	4.0%	100.0%	4.0%
Vodafone [7076]	98.3%	0.0%	0.0%	95.5%	8.6%
NETWORK RAIL -PROMOTERS NATIONAL [7093]	98.7%	0.0%	0.0%	-	7.9%
VIRGIN MEDIA [7160]	100.6%	0.2%	0.2%	93.5%	9.7%
Romec [7221]	100.0%	0.0%	0.0%	100.0%	0.0%
GTC [7231]	80.0%	0.0%	0.0%	100.0%	20.0%
Zayo Group UK Ltd (formerly AboveNet) [7235]	100.0%	0.0%	0.0%	100.0%	0.0%
SSE DATACOM [7244]	100.0%	0.0%	0.0%	100.0%	3.7%
Interoute [7245]	-	-	-	-	-
T-Mobile (UK) Limited [7250]	100.0%	0.0%	0.0%	100.0%	3.9%
ES Pipelines Ltd [7260]	133.3%	0.0%	0.0%	87.5%	50.0%
HUTCHISON 3G UK LTD [7264]	100.0%	9.5%	9.5%	100.0%	0.0%
Last Mile Electricity Limited [7269]	107.9%	13.2%	139.5%	73.0%	31.6%
Fulcrum Pipelines Limited [7294]	100.0%	0.0%	0.0%	-	0.0%
GEO [7304]	92.3%	0.0%	0.0%	0.0%	7.7%
EUNETWORKS FIBER UK LTD [7307]	100.0%	0.0%	0.0%	100.0%	0.0%
ESP Electricity Ltd [7309]	136.4%	9.1%	63.6%	85.7%	9.1%
Last Mile Gas Limited [7311]	90.0%	10.0%	50.0%	71.4%	40.0%
CityFibre [7330]	102.1%	0.0%	0.0%	97.0%	57.4%
Organisation 007348 [7348]	100.0%	0.0%	0.0%	0.0%	0.0%
Broadband for the Rural North (B4RN) [7350]	100.0%	0.0%	0.0%	83.3%	15.0%
Grain Communications Ltd (was Solway) [7351]	118.2%	0.0%	0.0%	88.9%	0.0%
Energy Assests Networks Ltd [7359]	100.0%	0.0%	0.0%	88.9%	33.3%
MURPHY POWER DISTRIBUTION [7366]	100.0%	0.0%	0.0%	100.0%	0.0%
MURPHY GAS NETWORKS [7367]	100.0%	0.0%	0.0%	33.3%	33.3%
ITS Technology Group [7370]	111.1%	0.0%	0.0%	100.0%	0.0%
IX Wireless Ltd [7377]	100.0%	1.4%	9.3%	95.8%	67.1%
Netomnia Ltd [7388]	99.8%	1.5%	3.7%	88.6%	7.0%
Organisation 007395 [7395]	100.0%	0.0%	0.0%	100.0%	0.0%
Digital Infrastructure [7518]	101.1%	0.5%	2.7%	92.8%	2.7%
Organisation 007527 [7527]	100.7%	0.7%	0.9%	87.9%	5.6%
UNITED UTILITIES WATER LIMITED [9102]	100.1%	1.3%	2.9%	97.5%	3.0%
Yorkshire Water [9109]	91.2%	0.0%	0.0%	95.7%	0.0%
SECTION 50 WORKS [9999]	_	-	-	-	-
TOTAL	99.8%	1.1%	29.3%	94.0%	9.3%

- 4.3.3 The proportion of works phases completed to phases started in the year is 99.8% overall.
- 4.3.4 The proportion of works completed after the reasonable period is very low at 1.1% overall. The highest is for council works at 9%.
- 4.3.5 The number of overrun days as a proportion of works phases started has increased to 29% with a high percentage recorded for council works due to the relatively low number of works completed.
  - Recommendation Yr8-03: Review number of overrun days for council works and identify if all works are being closed out timeously.
- 4.3.6 The number of permanent registrations at phase 1 as a proportion of all phase 1 registrations is high overall at 94%.
- 4.3.7 The number of early starts as a proportion of works phases started is relatively low at 9% of all works.

#### 5 STAFFING & RESOURCE

## 5.1 Summary

- 5.1.1 The DfT Fees Matrix used to estimate staff numbers and set the permit fee charges has been re-run with the actual number of permit applications granted in each year since the introduction of the scheme, to determine whether the staff numbers forecast in the business case are still appropriate.
- 5.1.2 The number of utility permits granted in Year 8 has increased further still to 44,410, following an increase from 29,637 to 38,541 between Years 6 and 7. This is an increase of 50% in the last two years.

## 5.2 Staff Resource

- 5.2.1 The DfT Fees Matrix calculated the number of staff required to process the forecast number of permit applications in the first year of the scheme and set the permit fees to match the costs incurred to process utilities permit applications.
- 5.2.2 The forecast permit activity used in the 2014 business case estimated a total number of full time equivalent (FTE) staff of 18.0 (shown in Table 19). 14.7 FTE staff would be required to process utility permit applications and 3.3 staff to process highway applications.

Table 19 2014 Business case staff resource projection

PERSONNEL LEVEL	All Works	Utilities
Street Works Officer	8.9	7.4
Street Works Co-ordinator	7.3	6.0
Traffic Manager	1.7	1.4
Total employees	18.0	14.7

5.2.3 Using the actual number of utility and highway authority permit applications recorded in Year 8, the same Fees Matrix spreadsheet calculates the total number of staff required at 28.1 (Table 20).

Table 20 Year 8 staff resource, 2022-23

PERSONNEL LEVEL	All Works	Utilities
Street Works Officer	13.1	12.1
Street Works Co-ordinator	10.3	9.4
Traffic Manager	4.7	4.2
Total employees	28.1	25.7

5.2.4 The number of staff required to process utility permits in Year 8 has increased from 17.9 in Year 6 to 25.7.

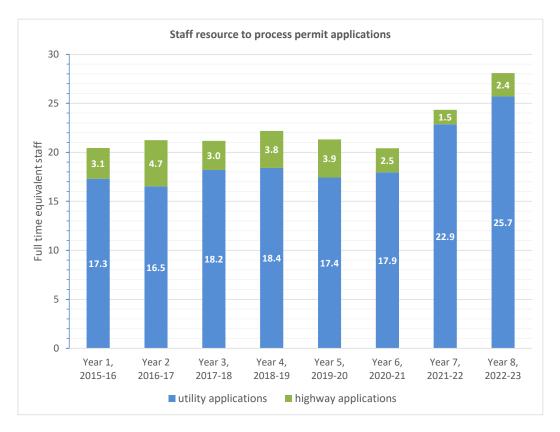


Figure 8 Change in staff resource to process permit applications

5.2.5 The additional resource required to process permit applications in the last two years will be reflected in a higher cost to the Council to operate the scheme.

# 5.3 Operating Cost

- 5.3.1 Using the same Fees Matrix spreadsheet, the cost to process granted utility permits in Year 8 has increased to £2,433,497 from £2,150,224 the previous year; a 13% increase.
- 5.3.2 This is broken down as £1,992,182 for staff costs related to permit applications and £302,477 for the additional fees charged for permit variations (Table 21).
- 5.3.3 The permit fees charged in each year include a surcharge to cover the utilities' share of the allowable operational costs. This surcharge recovered £138,838 of the calculated overheads, or approximately 6% of the total annual income. An increase of 13% compared with the money recovered via the surcharge in the previous year.

Table 21 Year 8 DfT Fees Matrix outputs, 2022-23

	Total Fee Income	Number Granted	Personnel Required	Operating Cost
Year 8, 2022-23				
All works permit applications;		46,530	28.09	£2,813,397
Utility permit applications;	£2,332,443		25.70	£2,433,497
- Permit applications & PAA		44,410		£1,992,182
- Permit variations		12,280		£302,477
- Allowable overheads				£138,838

#### 5.4 Fee Income

- 5.4.1 Permit fee income billed has also increased significantly, increasing by 7% from £2,172,115 in Year 7 to £2,332,443 in Year 8. This follows a 26% increase in fee income the previous year.
- 5.4.2 The increase in permit fee income over the last 5 years is shown in Table 22.

Table 22 Permit fee income, 2018-23

Period	Annual Fee Income	Change from Previous Year
Year 4, 2018-19	£1,714,327	
Year 5, 2019-20	£1,712,982	-0.1%
Year 6, 2020-21	£1,727,458	0.8%
Year 7, 2021-22	£2,172,115	25.7%
Year 8, 2022-23	£2,332,443	7.4%

- 5.4.3 Despite this increase in fee income, the scheme was operating at a reported 3.5% loss in the eight year. This is a result of the continued increase in staff salaries and other costs since the permit fee schedule was set in 2015 and the increase in number of staff required to process the number of permit applications submitted.
- 5.4.4 Salaries for SW co-ordinators and SW officers have increased by 15% and 20% since 2018.
- 5.4.5 The Council has reviewed permit fee income and total costs to operate the scheme at the end of Year 3 and at the end of Year 6; in line with advice in the Department for Transport statutory advice at the time.
- 5.4.6 No action was taken to recover accumulated losses during the first six years of the scheme. However, a small operating loss was forecast during Year 7 and a small adjustment in fees was recommended to prevent these losses accruing in subsequent years.
- 5.4.7 The plan to adjust fees during 2022 was postponed following feedback received during the consultation process, with the Council planning to re-consider permit fees at the end of the current year.
- 5.4.8 Given the relatively small loss reported in Year 8, it is recommended that a full review of fees and income since the scheme went live is carried out at the end of Year 9.

Recommendation Yr 08 - 04: Carry out a full review fee income and reported losses at the end of Year 9 and consider adjusting fees in 2024.

#### 6 CONCLUSIONS

## 6.1 Summary

- 6.1.1 The Lancashire County Council (LCC) Permit Scheme went live on 2<sup>nd</sup> March 2015.
- 6.1.2 The permit scheme regulations require the production of a full review of the scheme benefits, parity of operation and fee income every year for the first three years. Thereafter, a full review is required every third year. To date the Council has commissioned a review at the end of every year since the scheme went live, with the performance reported annually.
- 6.1.3 This report presents an interim review of the operation at the end of Year 8, covering the period March 2022 to February 2023. A full review of scheme operation and costs will be presented at the end of Year 9.

## 6.2 Scheme benefits

- 6.2.1 39,386 works were completed during Year 8, an increase of over 12% compared with the previous year. This follows a 22% increase in works completed in Year 7. Prior to Year 7, the maximum number of works completed in a single year was 30,355. Utility works increased by 26% in Year 7 compared with the previous year.
- 6.2.2 The total number of days worked has increased from 123,023 in Year 7 to 137,779 days in Year 8; an increase of 14,756 days.
- 6.2.3 The increase in total occupancy (total number of days worked) is consistent with the increase in number of works completed a 12.5% increase in number of works and the total number of days worked. The average duration of works remains at 3.5 days in Years 7 and 8.
- 6.2.4 Whilst the total number of days worked has increased from Year 7, this has to be considered in the context of a further very large increase in the number of works completed during Year 8.
- 6.2.5 The benefit of the scheme is assessed against the benchmark prior to the introduction of the Permit Scheme. Year 8 shows a 23,808 reduction in number of days worked compared with the Noticing baseline (137,779 days compared with 161,587 days).
- 6.2.6 The CBA business case calculated the cost per day for each traffic management type on each street type. The financial benefit to road users of the Permit Scheme in Year 8 is calculated at £14.1M per annum. This saving equates to 20% of the overall cost of works calculated in the CBA (£72.0M per annum total cost to road users).
- 6.2.7 This is lower than the peak £24M reported benefit in Year 6, but has to be considered against the significant increase in number of works completed.
- 6.2.8 The 15% reduction in number of days worked since Noticing is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.

## 6.3 Recommendations

6.3.1 Four recommendations have been made, relating to recording of highway works, monitoring Key Performance Indicators relating to permit conditions and requests to extend the duration of works and to consider deferring any adjustment permit fees until the end of Year 9.

Duration & occupancy;

Recommendation Yr 08 - 01 (continued from Yr 07-01): Review highway works to identify if all works requiring a permit are recorded correctly in the system.

Key Performance Indicators;

Recommendation Yr 08 - 02: Review system reporting to identify if permit condition inspections are recorded correctly.

Recommendation Yr8-03: Review number of overrun days for council works and identify if all works are being closed out timeously.

Permit Fees;

Recommendation Yr 08 - 04: Carry out a full review fee income and reported losses at the end of Year 9 and consider adjusting fees in 2024.

6.3.2 Recommendation 01 is a continuation of a recommendation made in the Year 7 review.

#### 6.4 Conclusions

- 6.4.1 Monitoring the key performance indicators and empirical evidence gained from the first 8 years of operation demonstrates that the Permit Scheme;
  - improves coordination of activities
  - improves safety at road and street works
  - improves communication between authority and utility companies
  - reduces occupancy of the highway
  - improves accuracy of works records recorded in the Register
  - reduces customer complaints
- 6.4.2 This review has demonstrated that Scheme has achieved its objectives in the eight year, as defined in the application documents.
- 6.4.3 The 15% reduction in number of days worked since Noticing is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.

## APPENDIX A. YEAR 8 DETAILED ANALYSIS

#### A1. All Works

Table A.1: Number of works p.a., year on year comparison

Total	28,292	35,019	39,386	4,367
Utility Works	26,176	34,045	38,018	3,973
Highway Authority Works	2,116	974	1,368	394
PROMOTER TYPE	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7

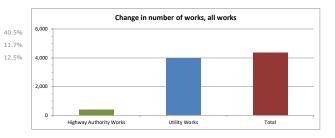


Table A.2: Number of works by Promoter, year on year comparison

Grain Communications Limited		92	48	-44
BRSK Limited		518	1,997	1,479
Digital Infrastructure Ltd			706	706
Netomnia Limited		444	889	445
IX Wireless Limited		742	239	-503
Cityfibre		417	485	68
ITS Technology Group Limited		17	74	57
Abovenet Communications UK Ltd			7	7
Broadband for the Rural North		178	26	-152
GEO		47	21	-26
Northern Powergrid - Yorkshire Dales	101	85	74	-11
ESP Electricity	8	11	23	12
New World Payphones Ltd	7	4	7	3
Neoscorp Ltd	2	45	58	13
Orange PCS Ltd	5			
Gas Transportation Co Ltd	26	27	8	-19
Romec Ltd	9	15	16	1
National Grid Electricity Transmission	1	4	1	-3
Energetics Gas Ltd	28	6	14	8
T-Mobile (UK) Limited	42	202	93	-109
Global Utility Connections	47	49	67	18
ES Pipelines Limited	51	27	12	-15
Vodafone Group	193	87	130	43
Manweb	45	42	36	-6
Fulcrum Pipelines Limited	57	23	4	-19
O2 (UK) Limited	10	2	1	-1
Yorkshire Water	94	141	132	-9
Network Rail	152	216	141	-75
Electricity North West	3,240	2,846	3,081	235
Cadent Gas Limited	3,396	12,825 2,905	2,554	-351
Virgin Media United Utilities Water LTD	2,518 9,662	2,679	4,396 14,475	1,717 1,650
BT	6,482	9,117	7,954	-1,163
Lancs.CC	2,116	974	1,368	394
PROMOTER	2015-16	2021-22	2022-232	Yr 8 - Yr 7

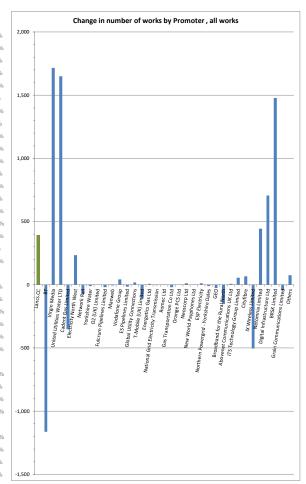


Table A.2b: Number of works by Telecomms. promoters, year on year comparison

TELECOMMS. PROMOTERS	Year 1	Year 7	Year 8	Diff
	2015-16	2021-22	2022-232	Yr 8 - Yr 7
Number of works completed	9,306	14,708	17,175	2,467

Change from 2015-16 baseline

3.0%

26.5%

Table A.3: Number of works by traffic management type, year on year comparison

Total	28,292	35,019	39,386	4,367
Blank	225			
Road closure	1,499	1,840	1,878	38
Contra-flow	7	17	19	2
Lane closure	268	417	433	16
Convoy working	12	1	1	
Stop/go boards	730	438	340	-98
Multi-way signals	1,045	2,851	2,890	39
Two-way signals	3,111	3,526	3,380	-146
Priority working	334	310	180	-130
Give and take	5,441	6,488	5,805	-683
Some c/w incursion	8,836	16,704	22,517	5,813
No c/w incursion	6,784	2,427	1,943	-484
TRAFFIC MANAGEMENT TYPE	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7



Table A.4: Number of works by works category, year on year comparison

Total	28,292	35,019	39,386	4,367
Intention to Issue Licence	225			
Immediate - Emergency	1,572	1,555	1,653	98
Immediate - Urgent	8,127	9,357	9,125	-232
Minor	13,433	19,112	22,291	3,179
Standard	3,340	3,391	4,743	1,352
Major	1,595	1,604	1,574	-30
WORKS STOPPED	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7

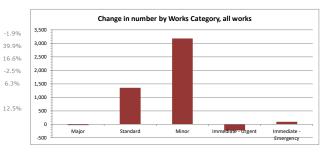
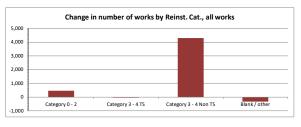


Table A.5: Traffic sensitivity, year on year comparison

All works	28,292	35,019	39,386	4,367	12.5%
Blank / other	548	583	247	-336	-57.6%
Category 3 - 4 Non TS	15,942	20,727	25,016	4,289	20.7%
Category 3 - 4 TS	5,338	6,432	6,387	-45	-0.7%
Category 0 - 2	6,464	7,277	7,736	459	6.3%
REINSTATEMENT CATEGORY	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7	





Year 8, 202	2-23, Durati	on by works	category	
MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
14.0	5.7	2.0	3.9	4.7
22,053	27,170	45,555	35,152	7,849

12.4 19,825	6.6 <b>22,464</b>	2.0 38,286	3.8 <b>35,612</b>	4.4 6,836					
MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)					
Year 7, 202	Year 7, 2021-22, Duration by works category								

Difference,	Year 8 - Yea	r 7		
MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
1.6	-0.9		0.1	0.3
2,228	4,706	7,269	-460	1,013

## A2. Highway Works

Table A.7: Number of works by traffic management type, year on year comparison

TRAFFIC MANAGEMENT TYPE	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7	
No c/w incursion	126	23	21	-2	-8.7%
Some c/w incursion	201	169	227	58	34.3%
Give and take	328	46	117	71	154.3%
Priority working	13	6	18	12	200.0%
Two-way signals	231	147	267	120	81.6%
Multi-way signals	62	91	154	63	69.2%
Stop/go boards	230	48	71	23	47.9%
Convoy working	1	1		-1	-100.0%
Lane closure	82	100	128	28	28.0%
Contra-flow	1	1		-1	-100.0%
Road closure	616	342	365	23	6.7%
Blank	225				
Total	2,116	974	1,368	394	40.5%

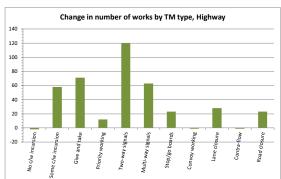


Table A.8: Number of works by works category, year on year comparison

Total	2,116	974	1,368	394
Intention to Issue Licence	225			
Immediate - Emergency	43	46	64	18
Immediate - Urgent	63	271	157	-114
Minor	443	177	359	182
Standard	574	242	364	122
Major	768	238	424	186
WORKS STOPPED	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7

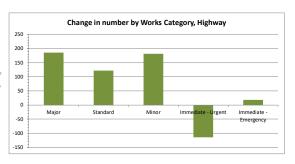


Table A.9: Average works duration, year on year comparison

Total number of days worked	27,119	7,312	11,794	4,482
Average duration (days)	12.8	7.5	8.6	1.1
DURATION	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7

Year 8, 2022-23, Duration by works category

MAJOR STANDARD MINOR IMMED.
(URGENT) IMMED. (EMERG.) 2.0 4.7 11.7 719

736

748

Year 7, 2021-22, Duration by works category

2,666

2,908	1,871	315	1,820	398
12.2	7.7	1.8	6.7	8.7
MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)

Difference, Year 8 - Year 7

6,925

14.7%

61.3%

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
4.1	-0.4	0.2	-2.0	3.0
4,017	795	404	-1,084	350

## A3. Utility Works

Table A.10: Number of works by traffic management type, year on year comparison

Total	26,176	34,045	38,018	3,973
Blank				
Road closure	883	1,498	1,513	15
Contra-flow	6	16	19	3
Lane closure	186	317	305	-12
Convoy working	11		1	1
Stop/go boards	500	390	269	-121
Multi-way signals	983	2,760	2,736	-24
Two-way signals	2,880	3,379	3,113	-266
Priority working	321	304	162	-142
Give and take	5,113	6,442	5,688	-754
Some c/w incursion	8,635	16,535	22,290	5,755
No c/w incursion	6,658	2,404	1,922	-482
TRAFFIC MANAGEMENT TYPE	2015-16	2021-22	2022-232	Yr 8 - Yr 7
	Year 1	Year 7	Year 8	Diff

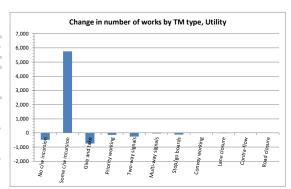


Table A.11: Number of works by works category, year on year comparison

Total	26,176	34,045	38,018	3,973
Other				
Immediate - Emergency	1,529	1,509	1,589	80
Immediate - Urgent	8,064	9,086	8,968	-118
Minor	12,990	18,935	21,932	2,997
Standard	2,766	3,149	4,379	1,230
Major	827	1,366	1,150	-216
WORKS STOPPED	Year 1 2015-16	Year 7 2021-22	Year 8 2022-232	Diff Yr 8 - Yr 7

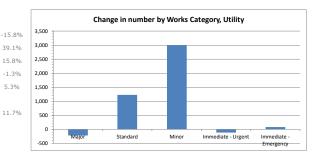


 Table A.12: Average works duration, year on year comparison

 DURATION
 Year 1 (2015-16)
 Year 7 (2021-22)
 Year 8 (2021-22)
 Diff (2021-22)

 Average duration (days)
 4.1
 3.4
 3.3
 -0.1

 Total number of days worked
 106,672
 115,711
 125,985
 10,274

 Year 8, 2022-23, Duration by works category

 MAJOR
 STANDARD
 MINOR
 IMMED. (URGENT)
 IMMED. (EMERG.)

 13.2
 5.6
 2.0
 3.8
 4.5

 15,128
 24,504
 44,836
 34,416
 7,101

-2.9%

8.9%

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
16,917	6.5 <b>20,593</b>	2.0 <b>37,971</b>	3.7 33,792	4.3 <b>6,438</b>

Difference,	Year 8 - Yea	r 7		
MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
0.8	-0.9		0.1	0.2
-1,789	3,911	6,865	624	663

# APPENDIX B. PROMOTER DURATION ANALYSIS

TRAFFIC MANAG	GEMENT & DURA	TION, PROMOTE	R BT (BC)								PROMOTER BT (	BC)			
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
1.9	2.2	2.4	2.0	1.7	2.8	2.5	-	2.5	1.5	1.4	2.5	6.7	2.0	1.8	1.9
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
									1.0			1.0			
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
15.0	32.0	29.0	5.0	10.0	30.0	11.0		5.0	3.0	10.0	32.0	29.0	18.0	12.0	10.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
	7	5		2.0	3	2.2	20		20	22	1				
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
. 60	<b>1</b> >60		>60	>60	>60	. 60	>60	. 60	>60	. 60	. 100	. 100	. 100	. 100	. 100
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
>100	>100	>100	>100	>160	>100	>100	>100	>100	>160	>180	>303	>303	>303	>303	>303
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
498	3,709	1,815	9	628	886	67		58	4	280	156	497	5,736	1,288	277
	-,	,-												,	
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
929	8,144	4,364	18	1,097	2,491	167		145	6	402	387	3,309	11,254	2,275	538
TOTAL WORKS															
7,954															
Ave Duration															
2.0															
No. days worker	d I														
17,763															

Duration   Ave   4.1   Min   Max   20.0     >15   1   >30     >60     >180	PRIORITY WORKING  Duration Ave - Min  Max  >15  >30  >60  >180	TWO-WAY SIGNALS  Duration Ave 2.3 Min	MULTI-WAY SIGNALS  Duration Ave 2.8 Min 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.	STOP/GO   BOARDS	CONVOY WORKING  Duration Ave - Min  Max  >15  >30	Duration Ave 1.9 Min 1.0 Max 3.0 >15	Duration Ave 1.0 Min 1.0 Max 1.0 >15 >30	Duration Ave 5.5 Min  Max 10.0  >15  >30  >60	Average 12.0 Minimum  Maximum 51.0  >30 1 >60  >180	Average 6.4 Minimum 1.0 Maximum 20.0  >30  >10  >10  >10  >10  >10  >10  >1	Average 1.9 Minimum Maximum 6.0 >30 >60	Average 1.4 Minimum Maximum 3.0 >30 >60	Average 1.0 Minimum Maximum 3.0  >30  >60
Ave 4.1 Min Max 20.0 >15 1 >30 >60	Ave - Min Max >15 >30 >60	Ave 2.3 Min Max 7.0 >15 >30 >60	Ave 2.8 Min 10.0 10.0 15.5 15.5 15.5 16.0 16.0 16.0 16.0 16.0 16.0 16.0 16.0	Ave 1.2 Min  Max 3.0  >15  >30  >60	Ave - Min Max >15 >30 >60	Ave 1.9 Min 1.0 Max 3.0 >15	Ave 1.0 Min 1.0 Max 1.0  >15  >30	Ave 5.5 Min Max 10.0 >15 >30	12.0 Minimum  Maximum  51.0  >30  1  >60	6.4 Minimum 1.0 Maximum 20.0  >30  >60	1.9 Minimum  Maximum 6.0  >30  >60	1.4 Minimum  Maximum 3.0  >30  >60	1.0 Minimum Maximum 3.0  >30  >60
Ave 4.1 Min Max 20.0 >15 1 >30 >60	Ave - Min Max >15 >30 >60	Ave 2.3 Min Max 7.0 >15 >30 >60	Ave 2.8 Min 10.0 10.0 15.5 15.5 15.5 16.0 16.0 16.0 16.0 16.0 16.0 16.0 16.0	Ave 1.2 Min  Max 3.0  >15  >30  >60	Ave - Min Max >15 >30 >60	Ave 1.9 Min 1.0 Max 3.0 >15	Ave 1.0 Min 1.0 Max 1.0  >15  >30	Ave 5.5 Min Max 10.0 >15 >30	12.0 Minimum  Maximum  51.0  >30  1  >60	6.4 Minimum 1.0 Maximum 20.0  >30  >60	1.9 Minimum  Maximum 6.0  >30  >60	1.4 Minimum  Maximum 3.0  >30  >60	1.0 Minimum Maximum 3.0  >30  >60
4.1   Min   Max   20.0	- Min Max >15 >30 >60	2.3 Min  Max 7.0  >15  >30  >60	2.8 Min  Max 10.0  >15  >30  >60	1.2 Min  Max 3.0  >15  >30  >60	- Min  Max  >15  >30  >60	1.9 Min 1.0 Max 3.0 >15	1.0 Min 1.0 Max 1.0  >15  >30	5.5 Min  Max 10.0  >15  >30	12.0 Minimum  Maximum  51.0  >30  1  >60	6.4 Minimum 1.0 Maximum 20.0  >30  >60	1.9 Minimum  Maximum  6.0  >30  >60	1.4 Minimum  Maximum 3.0  >30  >60	1.0 Minimum Maximum 3.0  >30  >60
Min  Max  20.0  >15  1  >30  >60	Min  Max  >15  >30  >60	Min  Max 7.0  >15  >30  >60	Min  Max  10.0  >15  >30  >60	Min  Max 3.0  >15  >30  >60	Min  Max  >15  >30  >60	Min 1.0 Max 3.0 >15	Min 1.0 Max 1.0  >15  >30	Min  Max  10.0  >15  >30	Minimum  Maximum  51.0  >30  1  >60	Minimum 1.0 Maximum 20.0  >30  >60	Minimum  Maximum  6.0  >30  >60	Minimum Maximum 3.0 >30 >60	Minimum  Maximum  3.0  >30  >60
Max 20.0 >15 1 >30 >60	>15 >30 >60	Max 7.0 >15 >30 >60	Max 10.0 >15 >30 >60	Max 3.0 >15 >30 >60	>15 >30 >60	1.0 Max 3.0 >15	1.0 Max 1.0	Max 10.0 >15 >30	Maximum 51.0 >30 1 >60	1.0 Maximum 20.0 >30 >60	Maximum 6.0 >30 >60	Maximum 3.0 >30 >30 >60	3.0 3.0 >30 >60
>15 1 >30 >60	>15	7.0 >15 >30 >60	>15 >30 >60	3.0 >15 >30 >60	>15	>15	>15	>15 >30	>30 1 >60	Maximum   20.0	>30 >60	>3.0	>3.0
>15 1 >30 >60	>15	7.0 >15 >30 >60	>15 >30 >60	3.0 >15 >30 >60	>15	3.0 >15 >30	>15	>15 >30	>30 1 >60	>30	>30 >60	>3.0	>3.0
>15 1 >30 >60	>30	>15	>15	>15	>30	>15	>15	>15	>30 1 >60	>30	>30	>30	>30
>30	>30	>30	>30	>30	>30	>30	>30	>30	1 >60	>60	>60	>60	>60
>30	>30	>30	>30	>30	>30	>30	>30	>30	1 >60	>60	>60	>60	>60
>30	>30	>30	>30	>30	>30	>30	>30	>30	1 >60	>60	>60	>60	>60
>30	>60	>60	>60	>60	>60				>60				
>60	>60	>60	>60	>60	>60								
						>60	>60	>60	>180	>180	>180	>180	>180
						>60	>60	>60	>180	>180	>180	>180	>180
>180	>180	>180	>180	>180									
>180	>180	>180	>180	>180								4	
		1		>100	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
74		92	75	24		9	1	6	7	116	4,187	63	23
d Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worke
303		214	207	29		17	1	33	84	744	8,136	91	22
	d Days Worked	d Days Worked Days Worked	d Days Worked Days Worked Days Worked	d Days Worked Days Worked Days Worked Days Worked	Days Worked Days Worked Days Worked Days Worked	Days Worked Days Worked Days Worked Days Worked Days Worked	Days Worked	Days Worked	Days Worked Days W	Days Worked Days W	Days Worked Days W	Days Worked Days W	Days Worked Days W

RAFFIC MANAG	GEMENT & DURA	ATION, PROMOTE	R UNITED UTILI	TIES WATER LIM	ITED (HZ)						PROMOTER UNI	TED UTILITIES WA	ATER LIMITED (HZ	<u>.</u> )	
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
3.7	3.2	3.8	1.5	2.8	2.7	1.0	-	3.2	3.3	4.0	6.2	4.8	2.1	4.0	1.7
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
1.0									1.0		14111111111111	1.0			
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
115.0	35.0	20.0	7.0	46.0	44.0	3.0	1114	50.0	6.0	88.0	115.0	20.0	11.0	37.0	12.0
	20.0					2.2									
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
2	4	3	7 13	3	6	713	713	2	713	9	9	- 50	- 30	2	730
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
2	1			1	1			1		5	3				
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
2										1					
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
195	8,143	2,656	14	1,437	939	123	Ivallibel	86	4	878	216	1,789	6,236	5,896	338
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worke
720	25,981	10,068	21	3,967	2,490	125		271	13	3,485	1,330	8,617	12,820	23,798	576
-		.,		.,	,					-,		-7-	,-	,	
OTAL WORKS															
14,475															
e Duration															
3.1															
o. days worked	d														
47,141															

TRAFFIC MANAG	SEMENT & DURA	TION, CADENT G	SAS LIMITED (AZ)								PROMOTER NAT	IONAL GRID GAS	NW NETWORK (A	Z)	
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
4.7	6.3	7.7	-	7.9	18.6	6.5	-	19.3	-	9.5	21.0	6.6	2.3	4.6	6.4
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
												1.0		2.0	1.0
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
64.0	95.0	89.0		53.0	128.0	25.0		54.0		60.0	128.0	30.0	9.0	12.0	40.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
8	124	28		29	80	1		7		10	75				3
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
4	23	5		7	30			6		3	10				
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
1	1	1			7										
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
244	1,610	194		226	198	4		16		62	419	287	719	246	883
	,			_										_	
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
1,145	10,109	1,503		1,780	3,678	26		308	,	586	8,793	1,907	1,669	1,120	5,646
,	.,	,		,								,	,		
TOTAL WORKS															
2,554															
Ave Duration															
7.2															
No. days worked	1														
19,135															

TRAFFIC MANAG	SEMENT & DURA	TION, PROMOTE	R ELECTRICITY N	NORTH WEST (JG)	1						PROMOTER ELEC	CTRICITY NORTH	WEST (JG)		
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
5.1	5.0	5.6	3.0	4.5	10.1	1.9	-	6.1	4.3	7.6	16.1	5.9	1.6	5.1	7.3
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
1.0			1.0						3.0			1.0			4.0
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
22.0	62.0	67.0	5.0	37.0	92.0	5.0		29.0	6.0	99.0	99.0	67.0	5.0	37.0	11.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
1	14	8		9	26			5		14	27	1		1	
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
	5	1		2	18					3	10	1			
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
	1	1			7					2					
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
125	1,643	410	2	456	198	11		66	8	162	188	1,131	507	1,248	7
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worker
637	8,250	2,293	6	2,066	2,008	21		400	34	1,237	3,021	6,652	836	6,392	51
OTAL WORKS															
3,081															
Ave Duration															
5.5															
lo. days worked	d														
16,952															

## APPENDIX C. SCHEME BENEFIT SUMMARY

