

Utility Companies and Developers Works: The Council's role in monitoring works carried out by utility companies and developers and utilities performance

Report of the Chief Officer for Highways, Infrastructure Development and Waste

1. Introduction

The purpose of this report is to:

- (a) Explain how the Council co-ordinates work on the highway;
- (b) Explain how the Council monitors utility companies and developers undertaking work on the highway;
- (c) Provide information on the current performance of the four main utility companies working in Devon.

2. Background

The utility companies are Statutory Undertakers and under legislation have a duty to maintain their apparatus, which is often placed in the highway. They are also responsible to their regulator for achieving certain quality or improvement targets for the benefit of their customers.

When planning work on the highway utility companies are required to give notice to the Highway Authority (i.e. Devon County Council) which can range from 3 months for major planned work and road closures, to 3 days for minor works. They are also required to cooperate with the Highway Authority, which can include coordinating their work with other utilities and any other activities on the highway. Utility companies must undertake any work in a safe manner to protect the public and the workforce. They must carry out highway reinstate work to a standard commensurate with the category of highway and the existing construction.

As Highway Authority and under the Traffic Management Act 2004, the Council has a duty to coordinate all activity on the highway with the aim of securing the expeditious movement of traffic.

This is achieved through careful advanced planning and coordination of all activities on the highway, including highway maintenance, the work of utility companies, developers, event organisers and others who need or have a right to undertake work on the highway.

In order to achieve effective coordination, all works promoters, including the utility companies, are encouraged to submit non-statutory forward planning notices to the Street Works Register of activity that will have significant impact on highway users. Regular reports are produced from this information which identifies opportunities for collaborative working to minimise the impact on road users and communities. The timing of works is also scrutinised, for example whether or not to undertake work during holiday periods, the duration of the works – could alternative techniques shorten the duration, and what minimum traffic management arrangements are needed for the safe execution of the work. Where it is identified that a number of organisations need to undertake work at the same location, then options for shared occupation are considered and planned highway maintenance works may be postponed to follow any third part excavation of the highway.

The Council has designated heavily trafficked roads as traffic sensitive. Communication of traffic sensitive routes alerts those wishing to occupy the highway that working time restrictions will be applied unless works cannot be accommodated in the periods available which are not traffic sensitive, or unless the works are emergency repairs or safety related. This enables the Council to

make directions as to when planned work can be undertaken.

The requirement to notice works means that all the highways activities should be logged in the Street Works Register, and this allows the Highway Coordination Team to regularly run reports and monitor planned activity on the highway and identify clashes. Information from the Register is also published on public websites including roadworks.org.

There are occasions when works need to be undertaken urgently or in an emergency, for example when gas leaks are detected, sewers collapse or electricity cables fail. When emergency work is required, they it has to be given priority and there are limited options for coordination with other work. As a result emergency repair work can cause significant disruption.

Whilst the Highways Coordination Team monitor works through the Street Works Register, a team of Highway Enforcement Officers (HEO) are responsible for monitoring works on site for compliance with safety requirement (signing, lighting and guarding), noticing, length of occupation and quality of reinstatements. HEOs undertake random sample inspections of sites as well as being called to sites where unexpected problems have been reported or identified, for example from the Highways Operations Control Centre. HEOs have the power to stop works or provide further direction if the correct procedures have not been followed or the site is considered unsafe.

Developers' works proposals are managed by the Development Management Team and Highway Agreement Officers. They ensure that any activities that affect the existing highway as a result of the development are noticed and coordinated, and that where possible the requirement for the new services provided by utility companies to supply the development are planned to minimise disruption on the highway. Once the utility companies have been instructed by a developer to lay new services, they will submit their notices to the Street Works Register in the usual way.

3. Performance of the Utility Companies

3.1 Noticing and duration of works

Regular monitoring of the utility companies is undertaken by the Highways Coordination and Enforcement teams. The figures below show a typical three month period between April and June this year when 4,784 utility works were started in Devon (Fig 1a) of which nearly one-third were immediate unplanned works (either emergency works where there were safety implications or urgent works where there was loss of service) and nearly half were minor works.

In terms of occupation of the highway, figure 1b shows that these totalled 15,759 days roughly evenly split between major works, standard works, minor works and immediate works.

Fig 1c shows the average duration of works ranging from 10 days for major works to under 2 days for minor works. Immediate works typically took under 4 days. During this period nearly a quarter of the notices had their timing adjusted either with early starts or overruns but only 29 days of overrun were unauthorised and only one fixed penalty notice was issued.

Fig 1a - Utility Work phases started in Devon Apr - Jun 2016 (Total 4784)

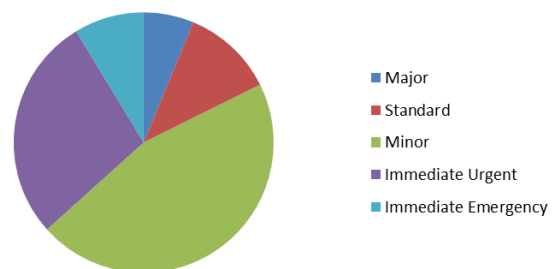
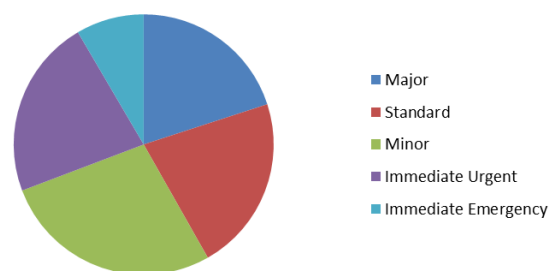
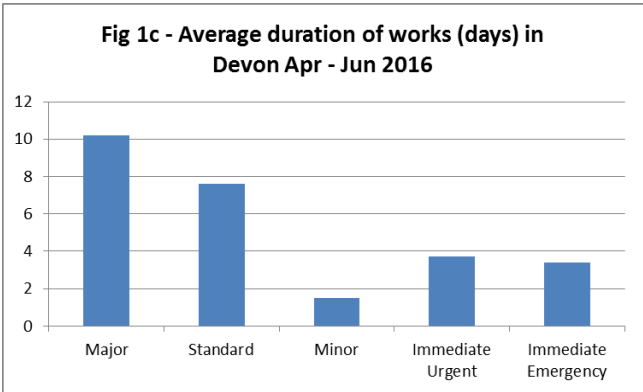


Fig 1b - Utility Work days of occupancy in Devon Apr - Jun 2016 (Total 15759 days)

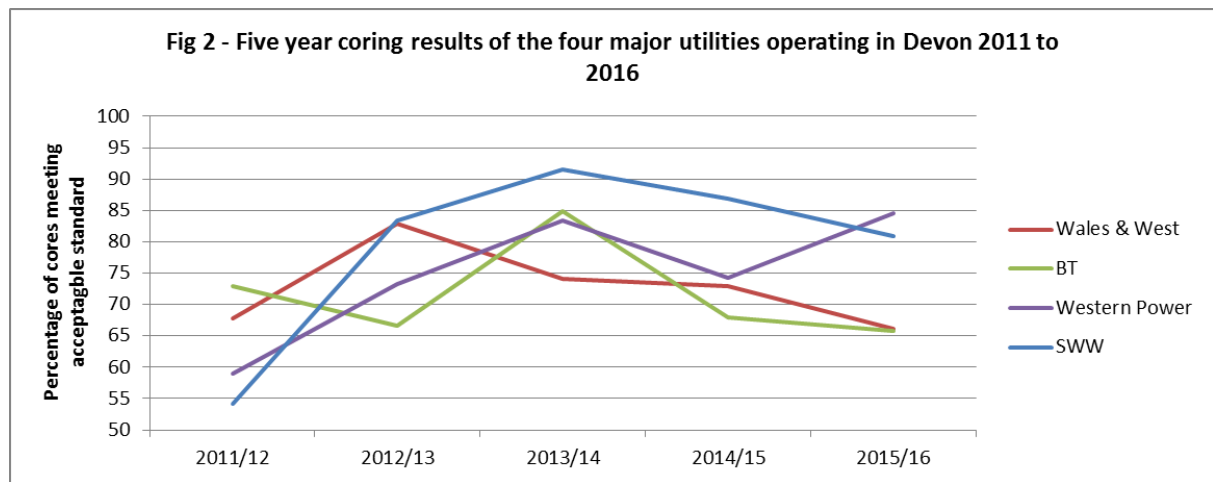


Overall the utility companies perform well on works noticing, although there is always room for improvement.



3.2 Reinstatements

The Highway Enforcements Officers arrange for random coring samples to be taken across the reinstatement works undertaken by the utility companies throughout the year. It is important that reinstatements are completed to the correct specification in order to protect the Council’s assets and avoid unnecessary and premature failure of the highway. The core testing results for the last five years are shown in figure 2.



This graph indicates that there was generally some significant improvement since 2011 from what was a fairly poor base, with a peak in performance around 2013. However since then performance has generally dropped. The main exception is Western Power Distribution who achieved their best five year result in 2015/16. However this result still leaves 15% of the sample core as unsatisfactory. The report for the most recent year is provided in Appendix A. This indicates that the proportion of satisfactory core sample reinstatements range from 66% to 85% for the four utility companies. It was also noticeable that the performance of each utility often varied significantly across the county with some areas experiencing excellent results and others very poor results.

Most utility companies use subcontractors to undertake reinstatements. The most common reason for failure is poor surfacing material compaction, which is found by measuring a high level of air voids in cores taken from reinstatements. The other reasons for unsatisfactory reinstatements include; inadequate depth of material, out of specification material or wrong material type.

This is clearly disappointing and not only has an impact on the highway asset, but also causes further unnecessary disruption to highway users when remedial work is required on the reinstatement.

4. Consultations

The latest report showing the coring results for the past year in Appendix A has been forwarded to each of the utility companies. Where reinstatements have not met the appropriate standards, defect notices have been issued. These lead to remedial works in order to provide a satisfactory

reinstatement.

5. Financial and Environmental Considerations

Undertaking work on the highway is disruptive, but not undertaking work “right first time” has a significant impact on the economy and the environment by adding unnecessary disruption and delay when works have to be repeated.

6. Summary

It is intended that this report will provide the Committee with an opportunity to discuss these matters with representatives from the utility companies.

David Whitton
Chief Officer for Highways, Infrastructure Development and Waste

Electoral Divisions: All

Cabinet Member for Highway Management and Flood Prevention: Councillor Stuart Hughes

Local Government Act 1972: List of Background Papers

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Background Paper	Date	File Ref.
1155_Scorecard_2016_17_Q1	25/07/2016	1155_Scorecard_2016_17_Q1.pdf
Utility Coring results 5yr summary 2011-2016	20/10/2016	Utility Coring results 5yr summary 2011-2016.xlsx

cc211016psc Utility Companies and Developers Works
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**Investigation into the Adequacy
Of Utility Reinstatements**

Annual Coring Program report 2015/16

Introduction

The impact the activities of the Statutory Undertakers (SU's) have on the immediate and longer term integrity and accessibility of the highway network can weaken DCC's asset. The coring programme is designed to ensure compliance across the county by randomly selecting sites.

Poor quality reinstatements are at best likely to have a low durability leading to early life failure and the need for premature maintenance intervention. The early life failure of utility reinstatements is costly in terms of disruption and resource. Additionally there is a potential source of danger to highway users.

There are also green issues whereby the transportation and importation of new material to remedy defective reinstatements.

All cores were extracted from carriageway and footway reinstatements which have been registered as permanent and were found to be compliant based on a visual inspection in accordance with the performance requirements of the Specification for the Reinstatements of Openings of the Highway (SROH)

Summary

Since July 2015 DCC undertook a change to the annual coring programme by coring monthly instead of quarterly, The rationale behind this is twofold, firstly the materials lab are able to test the cores and publish the results much quicker but also to identify any localised problem areas that may require further investigation

This report relates to the amalgamated cores taken from monthly random coring carried out on street works reinstatements as undertaken by SU's during July 2015 to July 2016. There was no coring in January 2016 so this equates to twelve months

Background

Since 2002 Devon County Council has undertaken a coring programme Throughout this period efforts have been made by all SU's to improve the standard of reinstatements that are placed in the highway following street works. These efforts included a Highways and Utilities Committee approved "Best Practice" publication and a joint trial between SW Water and DCC.

There have also been meetings between Wales & West Utilities and BT to look at ways of improving compliance.

Further information from previous core programmes is available on request

Coring of Reinstatements

This year's programme of the 2015/16 coring program consisted of the sampling of 301 reinstatements randomly selected across the County. This consisted of 146 carriageway sites and 155 footway sites.

South West Water (SWW)	48 Carriageway (CW).	41 Footway (FW)	= Total 89
Wales and West Utilities (WW)	34 Carriageway.	34 Footway	= Total 68
British Telecom (BT)	33 Carriageway.	40 Footway	= Total 73

Western Power Distribution (WPD) 31 Carriageway. 40 Footway = Total 71
 Sampling and testing was completed in accordance with the HAUC UK recommendations for implementing a structured coring programme.

A total of 301 core pairs were extracted through the full depth of the bituminous or cement bound layers .Each core was taken for analysis of the following parameters

- a) Total depth (thickness) of bitumen bound layers at each location compared to the specified requirement for the particular road type (SROH)
- b) The quality of placement and compaction of the bituminous material as indicated by the measured air voids content of the core assessed against the current specification (SROH)
- c) The correct type of aggregate in terms of its ability to achieve the required degree of skid resistance assessed against the current legislation (SROH)

All SU's and their contractors were invited to attend site during the programme to verify the correct procedure and conduct of the operation

Analysis and Results

The table below summarises the 2015/16 coring programme

SWW	WW	BT	WPD	Defect	
15	18	23	10	Air voids	
1	3	0	1	Depth	
0	0	0	0	Depth & Voids	
1	2	1	0	PSV	
0	0	1	0	Material Type	
Summary					
38	22	21	25	CW Passes	
34	23	27	35	FW Passes	
Summary					
10	12	12	6	CW Fails	
7	11	13	5	FW Fails	
Summary					
17	23	25	11	Total Failing	
72	45	48	60	Total Passing	
Summary					
48	34	33	31	CW	Total Cores
41	34	40	40	FW	
Summary					
79.2	64.7	63.6	80.6	%CW	Pass Rates
82.9	67.6	67.5	87.5	%FW	
Summary					
80.9	66.2	65.8	84.5	TOTALS % pass	

Conclusions

Considerable effort has been put into improving the overall standards of workmanship, including the transportation, handling, placement and compaction of bituminous material.

Overall Compliance

SW Water... 80.9% Wales and West Utilities... 66.2% BT... 65.8% and WPD... 84.5%

These figures are a disappointment compared with last year's results

DCC and the UT's will continue to investigate the reasons for non-compliance and work towards improving compliance rates

Depth Compliance

Unfortunately there are still a number of depth failures

SW Water... 1 WPD... 1 WAWU... 3

Although this is not a high number DCC and the SU's have a desire to eliminate all depth failures .Work will continue to achieve this

Material selection

The compliance rate for material type and PSV (skid resistance), is very high and consistent this is very encouraging and DCC and SU's will continue to work together to maintain this high standard

Air void compliance

The results for this year have slipped which is disappointing and will need further investigation, again DCC and SU's will work together to achieve this

Recommendations

- To continue with a phased approach of monitoring the standard of compliance with the SROH through structured monthly coring
- To continue to work with all SU's and their contractors looking at systems and methods of working.
- To initiate meetings involving ALL SU's and their contractors and share information regarding achieving compliant reinstatements.
- To look at local areas with low compliance rates and investigate the reasons and report the outcome
- This report to be circulated to all SU's

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23/09/2016