Dudley Metropolitan Borough Council

Agenda Item No. 10

Select Committee on the Environment

Report of the Director of the Urban Environment

Highway Maintenance

Purpose of Report

1. To inform the Committee of the Council's responsibilities in respect of highway maintenance.

2. To outline the Council's resource capacity in the delivery of the service.

3. To inform the Committee of new legislation regarding the management of the Council's highway assets and new network control in planning and co-ordination of works on the highway.

Background

4. The Council has a total of 967 km of highway in the Borough and is responsible for its ongoing repair and maintenance. As the statutory highway authority, the Council is also responsible for road markings and signage and investigates complaints of damage and/or deterioration.

5. The network is categorised into principal, classified and unclassified roads, with information collated from condition assessment surveys and programmed inspections informing annual programmes of maintenance.

6. It is often a common misconception that the Council is responsible for most excavations on the highway. This is not the case, as statutory undertakers carry out the vast majority of excavations. The Council is nonetheless responsible for co-ordinating and governing this work in accordance with the New Roads and Street Works Act 1991 (NRSWA). The introduction of new powers under the Traffic Management Act in 2007 will however further enhance the role of the authority in programming, monitoring and controlling all work on the highway.

7. The type of work on the highway is governed by its nature, type and content. This can range from private utilities, undertaking excavation and reinstatement works, the Council's in-house workforce, for repairs to potholes, patching, dropped kerbs, new signage and gully cleansing and external contracts for resurfacing, pedestrian guardrails, road markings and major construction works.

8. The highway is one of the Council's greatest assets and its effective management is a major responsibility for the Authority. This responsibility falls within the Council's Street Care Section, in particular the Asset Management

Team, whose remit also covers risk management and the investigation of insurance claims related to the highway. The Council's Works Management and Street Maintenance teams likewise play key roles in highway maintenance.

Asset Management

9. Asset Management is responsible for managing the Authority's highways, implementing NRSWA, managing risk and providing work programmes for those teams maintaining our highway network through the United Kingdom Pavement Management System (UKPMS).

10. 967 km (580 miles) of carriageways and footways have to be surveyed on a regular basis to ensure that engineers have an accurate picture of their condition to apply the correct maintenance solutions and to make necessary bids through the Local Transport Plan (LTP).

11. The introduction of the new Traffic Management Act will have significant implications for all persons working on the highway and Asset Management is currently developing new arrangements and work practices required by the Act which will be introduced over the coming year.

12. During the winter period, the team are responsible for overseeing the winter gritting service and are in regular communication with the weather forecasting service provider (Meteor Group) and other key agencies, taking any necessary action to keep the highway safe and free from snow and ice.

13. The team are also working on the introduction of the Highway Asset Management Plan (HAMP), which is a requirement of central government for all local authorities. The HAMP is a key strategic document to substantiate investment in highway maintenance by demonstrating value for money in delivering the Authority's social and economic aims over the life of the asset.

Works Management

14. Works Management manages and supervises all major highway maintenance works undertaken by external contractors for Street Care. Necessary expertise dictates that works management provides a 'centre of excellence' for contract preparation, management, supervision and advice on implementation of the Contract Manual for a range of services in Street Care.

15. With an emphasis on determining Best Practice, the section strives to harness new techniques and innovative ways of maintaining the highway, including the use of recycled products in surfacing material.

16. With a number of maintenance contracts renewed in 2006/7 and 2007/8, the team have reviewed existing performance for the suitability and configuration of contracts and have achieved cost savings and improved value for money.

Street Maintenance

17. Street Maintenance is responsible for all 'operational in-house' highway maintenance works, with teams that are able to react quickly and effectively to a range of service requests.

18. In addition to the repair of potholes, installation of footway crossings, the replacement of road and traffic signs and general highway repairs, the team are responsible for cleaning the Borough's roadside gullies, catchpits and operation of the winter gritting service.

19. As part of the highway inspection service, each area has a dedicated inspector who identifies defects as part of our Risk Management Procedure. Remedial measures are then managed and implemented within a well defined time frame.

The Condition of Our Highway

20. The condition of our highway is assessed on a yearly basis through the UKPMS. The system provides for photographic scanning of 15% of the highway each year, with a further 50% visually inspected, detecting defects and faults and determining the proportion of the network that is likely to require planned maintenance. The information is analysed and categorized into the various highway types e.g. principal, non-principal, classified and unclassified. Following ratification of the data, the information forms the basis of the Council's BVPI returns to government office for condition of the Borough's highway.

21. In addition to Scanner Surveys and the detailed condition assessment surveys, the Council employs a team of six highway inspectors, who visit every highway and footway in the Borough at least twice per year to undertake safety inspections.

22. The information from on-site inspections and Scanner Surveys informs which roads are included in the Council's Annual Highway Maintenance Programme.

23. BVPI Indicators reported by the authority are detailed as follows.

Indicator	**Description**	**2006/7**	
		Target	**Actual**
BV223	Percentage of LA principal road network where structural maintenance should be considered	14%	16%
BV224a	Percentage of LA non-principal classified road network where structural maintenance should be considered	17%	17%
BV224b	Percentage of LA unclassified road network where structural maintenance should be considered	13%	12%

24. The above performance represents a good standard when considered against other councils across the Country. However, the criteria of assessment has changed for 2007/8, making it difficult to compare the results of new surveys with previous years. In recognition of the new criteria, the above indicators have been removed from the Council's CAA Assessment for 2007/8. However, it has been

indicated that they will be reintroduced for future years. It is anticipated that current standards and levels of performance will be difficult to maintain, let alone improve without adequate LTP settlement funding.

25. In addition to the BVPIs detailed above, the Council surface treated 186 roads and footpaths in 2006/7 against a target of 150 and achieved its target of 98% of repairs to roads carried out in 24 hours.

26. As an active part of the District Maintenance Engineers Group (DMEG), Dudley Council's officers regularly liaise with other West Midlands Authorities regarding regional funding and maintenance issues, common work methods and best practice and are active members of the Association of Public Service Excellence (APSE) for service benchmarking and sharing of highway data.

Highway Maintenance Programme

27. Each year, the Council prepares an Annual Highway Maintenance Programme. The programme is put together following an analysis of data from condition assessment surveys of the highway and on-site inspections.

28. In addition to identifying carriageways and footways in the Borough in most need of planned maintenance and repair, the programme identifies the type of maintenance which is required and what can be achieved from the allocated budget of Capital funding and LTP settlement awarded to the Council for highway maintenance works.

29. The various types of treatments are detailed in Appendix 1 of this report and are dependant upon the type and condition of the existing surface. An increased number of recycled products are now used in surface treatments compared to previous years, having a positive impact on the environment through re-use of material.

30. Upon completion of the annual programme each year, the information is made available to elected members and is posted on the Council's web site for accessibility to the public.

Traffic Management Act 2004

31. The Traffic Management Act 2004 (TMA) imposes a duty on the highway authority to manage the highway network for which it is responsible and to co-operate with neighbouring authorities to manage the adjoining highway networks.

32. The TMA strengthens duties under the New Roads and Street works Act 1991 (NRSWA) and all works for road purposes (including work by in house teams) will be regulated in the same way as public utilities currently are. To ensure a level playing field between the highway authority and the utilities companies, the systems must be open and transparent and be subject to internal and external scrutiny.

33. Should the Council fail to comply with the TMA, the Government could appoint a Traffic Director to manage all works, the costs being met directly by the Authority.

34. The Government has consulted on a new code of practice for notices, and co-ordination etc. and a final version of the document has recently been published by Government office which involves extensive work by authorities in preparation for the implementation in Spring 2008.

35. The TMA also extends the use of permit schemes which require a positive response from the Authority before any work can be undertaken on the highway. At present, utilities only have to notify the highway authority when work is taking place.

36. Operating a permit scheme would allow the Highway Authority to increase the percentage of statutory inspections undertaken each year.

37. With the emergence of the new TMA, work on a number of roads must now consider improved safe working measures through the application of traffic management controls. In particular, roads such as the Dudley Southern Bypass require lane closures to ensure safe working areas, impacting on both levels of productivity and cost. Maintenance arrangements outside of normal peak traffic hours have also been introduced on traffic sensitive routes.

Highway Asset Management Plan (HAMP)

38. LTP guidance requires highway authorities to produce a Highways Asset Management Plan (HAMP) in order to enable the highway assets to be valued in line with whole life Government accounting practice.

39. This valuation of the asset is likely to form the basis of future Government funding and strategy for highway maintenance. Failure to produce and implement a HAMP will affect future Government funding for highway maintenance.

40. HAMPs are specific to individual highway authorities. However, Dudley are currently working with the six West Midland metropolitan authorities to ensure commonality to enable integration at a regional level.

41. The production of the plan has resource implications as implementation will require a detailed inventory of the asset and new mechanisms and systems installed to ensure asset registers are maintained.

Although the Council has an adequate database relating to the highway, an all-inclusive inventory is not in place and a gap analysis has commenced. Our existing IT Highway Management System based on Symology Software will support the implementation and maintenance of the HAMP.

43. Seasonal variations often impact on the condition of the highway. Periods of extreme heat have a detrimental effect on the highway surface. Equally, the recent heavy rainfall and flash floods has seen an increase in the occurrence of remedial works to water damaged carriageways where Severn Trent Water Sewers are full to capacity and as a result the carriageway erupts resulting in remedial works by the Highway Authority. This impacts on repair costs and increased gully cleaning requirements to ensure adequate drainage of the highway. The recent severity of weather patterns have resulted in teams of

highway staff working throughout the day and night to ensure safe access for users of the Borough's highway.

The Way Forward

44. In order to ensure that the Council manages and maintains its highway infrastructure, information will continue to be used from Scanner Surveys and on- site inspections to determine future annual programmes of maintenance.

45. New legislation through the Traffic Management Act will play a key part in how future work is programmed, co-ordinated, managed and monitored on the highway. New systems of notification and operational procedures are currently being developed which must, in future, be adhered to by all persons or agencies undertaking work on the highway.

46. Highway legislation requires the formulation of a Highways Asset Management Plan (HAMP) detailing all of the Council's Highway Assets. In addition, the register will need to be updated and amended on a daily basis, including any additions or variances.

47. The Council will continue to liaise with Regional Authorities regarding the impact of reduced levels of LTP funding for highway maintenance.

48. The Council will continue to liaise with the Highways Agency regarding detrunking of highways in the Borough, namely the A456, A4123 and A458 and seek the best financial settlement for the Authority for future maintenance.

49. The Council will continue to maintain its highways through a combination of in-house highway teams who specialise in repair and maintenance works, providing a quick responsive reactive service and through the procurement of specialist highway contractors for resurfacing, white lining and pedestrian guardrails. Furthermore, whilst major construction works are not detailed in the contents of this report, Members will be aware that this nature of work is accommodated in partnership with Carillon.

50. As part of future procurement of highway works, an increased number of term contracts are being let based on quality and price. This enables the Council to further seek assurances on the importance of quality from prospective contractors, including their proposals for issues such as Health and Safety, Support and Back Up Arrangements, Customer Care, Equipment and Materials, Continuous Improvement and Environmental Proposals.

51. As part of service innovation, work continues to take place regarding sustainable materials and processes, with a great deal of emphasis on products that impact on the local environment. Material from shredded tyres has been used for resurfacing of some pavements in the Borough in addition to reuse of aggregates. The highways section will continue to introduce trials of new material where appropriate and discuss new materials with external suppliers.

52. The Council will continue to develop Highway Maintenance Policies and Strategies in line with new legislation, recognising the wide range of direct and indirect service areas which undertake essential works on the highway and those who use it.

Finance

53. The Council's Highway Maintenance Programme is funded through Capitalised Revenue funding and an allocation of monies from the West Midlands Local Transport Plan (LTP) settlement.

54. Whilst in 2007/8 Dudley received an increased overall settlement figure compared to previous years, its highway maintenance LTP allocation was disappointing.

	2006/7	**2007/8**	**Diff +/-**
Principal Road Network -	£0. 287m	£0. 206m	-£ 81k
Non Principal Road Network -	£1. 082m	£0. 804m	-£278k
Total	**£1.369 m**	**£1. 010m**	**-£359k**

55. Although the recent reduction in LTP budget is significant, up to 2004/05 the PRN funding from the LTP was in the region of £2m p.a. considerably more than the 2007/08 figure.

56. Indications suggest that future LTP settlements for highway maintenance may further reduce, providing a significant risk for the Authority in maintaining the condition of its highway.

57. As well as the LTP funding of the Non Principal Road Network, Dudley MBC directly funds an additional £2m p.a. of structural highways maintenance through the prudential borrowing regime.

58. A requirement for more capital funding to deliver an adequate programme of maintenance has been identified by the Council as one of its Strategic Monitored Risks; as failure to undertake adequate maintenance leaves the Council open to litigation should an accident occur. Furthermore, in the case of a fatality, a case of corporate manslaughter could be brought against the Council or individual officers.

59. Support for the Council's ongoing Highways Maintenance operation is funded through existing revenue budgets within DUE.

Law

60. The Council's budgetary process is governed by Local Government Finance Acts 1988 and 1992, the Local Government and Housing Act 1989 and the Local Government Act 2003

61. Section III of the Local Government Act 1972 enables the Council to do anything that is calculated to facilitate or is conductive or incidental to the discharge of its functions.

62. The Council carries out its functions to provide, improve and maintain highways under Section 24, 41, and 62 of the Highways Act 1980 and exercises traffic regulatory powers under Section 1 of the Road Traffic Regulation Act 1984.

63. The requirement for a Local Transport Plan is a requirement of The Transport Act 2000.

Equality Impact

64. This report takes into account and acknowledges the Council's policy in respect of Equality and Diversity in the delivery of the service and the ongoing maintenance of the Council's highway network.

65. The Council's Capital Programme includes specific provision to benefit pedestrians and other vulnerable users of the highway; assist social inclusion and mobility of the less able together with measures to improve access for persons in the borough.

Recommendation

66. That the Committee note the contents of this report and the work undertaken by the Council's Street Care Section in respect of managing and maintaining the Borough's highway assets.

67. That the Committee note the internal and external factors that are adding greater pressure on the capacity of the existing budget to deliver an adequate maintenance programme.

68. That the Committee note the impact of new legislation regarding the introduction and ongoing management of a HAMP, the impact on resources and new control measures for work on the highway brought about by the Traffic Management Act.

69. That the Committee note the reduced LTP settlement for Highway Maintenance for 2007/8 and its impact on maintaining the condition of the Borough's public highways.

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Background documents used in the preparation of this report:-

Budget Growth Proposals Documentation File 2006/7 and 2007/8

Annual Highway Maintenance Programme
Street Maintenance Budget Profile 2007/9

Street Care Service Plan

Transport Settlement, Proposed Transport Capital Programme for 2007/8 and Road Safety Grant (Meeting of the Council 26th February 2007).

APPENDIX 1

HIGHWAY MAINTENANCE OPTIONS

TREATMENT	DESCRIPTION
Carriageway Reconstruction	Removal of the existing surface, usually to a depth of 100 mm, and replacement with new high strength materials. Two surface course materials are used: Close Graded Macadam (for lightly trafficked local roads) Stone Mastic Asphalt (in areas of heavy traffic)
Carriageway Microsurfacing	A cold-applied material comprising aggregate and bitumen emulsion applied 15-20 mm thick as a preventive maintenance. This seals the surface and restores the skidding resistance.
Footway Reconstruction	Where the footway is badly deteriorated, the surface is excavated to a depth of 75 mm and replaced with new bituminous material. At the same time any damaged kerbs are replaced.
Footway Microsurfacing	For moderate levels of deterioration where some regulating is required, a microsurfacing material is applied 15 mm thick. The material being used in Dudley includes recycled rubber crumb (from scrap car tyres) as part of the aggregate.
Footway Slurry Seal	A slurry of bitumen emulsion and fine aggregate is applied 6 mm thick to seal the surface and prolong the life of the footway.

An in-situ recycling process known as Retread is currently being evaluated as an alternative to carriageway reconstruction. The process involves breaking up, reshaping and relaying the existing road materials in the binder course. A new surface course is then laid on top. This should be slightly cheaper than the alternative of full reconstruction, but the main benefit will be the reduced environmental impact. A trial is due to be undertaken shortly.