

REPORT TO: CITY DEVELOPMENT COMMITTEE - 27 SEPTEMBER 2010

REPORT ON: ROAD ASSET CONDITION AND BACKLOG

REPORT BY: DIRECTOR OF CITY DEVELOPMENT

REPORT NO: 406-2010

1 PURPOSE OF REPORT

- 1.1 To advise Committee of the current position and the background to the Statutory Performance Indicator used to measure carriageway condition as reported to the Scrutiny Committee.
- 1.2 To advise on the condition of the road asset within Dundee City Council and identify the investment required to bring the asset up to an appropriate standard.

2 RECOMMENDATION

- 2.1 It is recommended that Committee notes the contents of this report and take account of this when setting future budgets.

3 FINANCIAL IMPLICATIONS

- 3.1 There are no direct financial implications arising from this report.

4 BACKGROUND

- 4.1 Reference is made to Article VIII of the Planning & Transport Committee of 8 September 2008 where Committee was advised of the position at that time and the background to the change to Statutory Performance Indicators used to measure carriageway condition. Reference is also made to Article IV of the Planning & Transport Committee of 13 March 2006 which outlined a study report produced by Audit Scotland in November 2004 which identified the maintenance backlog associated with all road assets both nationally and within Dundee City Council. This study established that there was a backlog of £1.7 billion for the whole of Scotland, whilst the backlog for Dundee City Council for all road assets was £50.3 million with the backlog for adopted carriageways alone sitting at £18 million.
- 4.2 The Statutory Performance Indicator (SPI) used for carriageway condition is derived from the results of the Scottish Road Maintenance Condition Survey (SRMCS) carried out annually for all Scottish Local Authorities. The survey uses data collection techniques that aim to measure in a consistent way, the condition of a representative sample of roads in each Local Authority area. The condition indicator is supplied to each Authority as the percentage of the road network that falls below two thresholds. The lower threshold, categorised as Red, designates areas of the network requiring immediate treatment while the upper threshold, categorised as Amber, designates areas requiring further investigation to determine whether treatment should be considered. The Statutory Performance Indicator reported annually to Audit Scotland is based on the combination of the Red and Amber values for the overall network.
- 4.3 The SPI, properly known as the Road Condition Indicator (RCI), is calculated from survey data collected every 10 metres from vehicle mounted sensors that measure

specific characteristics of the road surface. The data measurements are then compared against threshold levels to determine how much the individual characteristics contribute to the overall RCI and these are then aggregated up to produce the RCI for the section of road as well as the overall network.

- 4.4 Each year the SRMCS covers a sample of each Local Authority's road network, the size of which is determined by the different road classifications and is considered to be representative of the whole network. The following table details the percentage of each class of road surveyed.

Road Class	Percentage to be Surveyed
A	100%
B	50%
C	50%
Unclassified	10%

- 4.5 Since only the A class roads have 100% survey coverage, the Network RCI reported as the Statutory Performance indicator is calculated by combining the survey data for the current year and the previous year's survey. This has the effect of smoothing out any large variations that may be introduced from only surveying a sample of the network, particularly on the unclassified roads where the annual sample size is small.
- 4.6 The following table shows the values of the rolling 2-Year RCI for Dundee City Council. Also shown are the average RCI values for the city authorities ie Aberdeen, Dundee, Edinburgh and Glasgow taken as a group as well as the Scottish Local Authority's average.

2 Year Rolling Network RCI			
	2006/2008	2007/2009	2008/2010
Dundee	25.2	23.2	25.6
City Average	28	27	30
Scottish Average	37	34	36

- 4.7 From the information presented, it is clear that the RCI value has risen significantly over the last 12 months. However this trend is not unique to Dundee as 22 out of the 32 Scottish Local Authorities have results exhibiting a similar increasing trend signifying a general deterioration of their road network. Dundee City's results are consistently below the average for the city authorities as well as those of the Scottish LA average.
- 4.8 The severe winter conditions experienced during 2008/09 has no doubt contributed to the general increasing trend of RCI values across most of the Scottish Local Authorities. In the case of Dundee, this is despite significant additional capital funding being made available for road maintenance schemes during that financial year. Although the additional funding has continued, the second severe winter in succession will have similar effects on the road network and we should therefore expect to see no significant reduction in the RCI when the new survey results are reported towards the end of 2010.
- 4.9 The State of the Scottish Local Roads Network was published in June 2010 and reported on work commissioned by SCOTS (the Society of Chief Officers of Transportation in Scotland) to determine the carriageway maintenance backlog in Scotland and for each local authority. The report confirms the steady decline in the condition of Scotland's road network and an overall shortfall of funds to maintain the

network at its current condition. The report identified that there is a carriageway maintenance backlog in Scotland of £1,539 million

- 4.10 For Dundee City Council, the modelling carried out based on the 2007/09 SRMCS results, indicates that the headline backlog figure for carriageway maintenance alone is approximately £18.4 million (note that this is not a comparable measurement to the Audit Scotland 2004 report).
- 4.11 Other scenarios modelled suggest that in order to maintain Dundee City's road network at 2009 conditions ie at a steady state, an annual budget of £2.2 million is required in comparison to the £1.375 million spent that year. If the 2009 level of expenditure was continued for the next 10 years, the RCI is predicted to rise to 33%. In addition it is estimated that at 2009 budget levels, the value of the road network asset would reduce by approximately £17 million over the next ten years which equates to twice the amount that would be saved by not funding maintenance at the steady state level. This net loss in value would be accompanied by a significant decline in network serviceability as the RCI climbed to its predicted 33% level.
- 4.12 Through a combination of capital and revenue funding, the historic and budgeted investment in the carriageway asset is noted below:

Carriageways

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Capital	£0.3m	£0.34m	£0.825m	£1.375m	£1.563m	£1.413m	£1.5m
Revenue	£0.49m	£0.58m	£0.66m	£0.43m	£0.5m	£0.5m	£0.5m

Inflation – Office for National Statistics – Coated Roadstone Price Index

Date	2005 average	2006 average	2007 average	2008 average	2009 average
Index	100	108.2	113.8	130	132.6

- 4.13 The following table gives a break down of the RCI for 2008/2010 by road classification.

Road Class	Network (km)	Red %	Amber %	RCI	Green %
A	48.1	3.72	17.13	20.85	79.15
B	14.9	3.79	20.97	24.76	75.24
C	119.8	1.93	15.89	17.82	82.18
U	361.4	4.25	24.65	28.90	71.10
All	544.2	3.68	21.96	25.64	74.36

- 4.14 These results suggest a levelling of the condition of the network as a whole in comparison with previous years. For all classes of roads the RCI ranges approximately between 20% -30% whereas in previous years the A & B class roads tended to be below 20% and in the case of the A's, significantly so. The condition of Unclassified roads continues to be a major contributor to the overall RCI value with almost 30% of the U-Class network in need of either immediate maintenance or further investigation. This is not entirely unexpected, bearing in mind the tendency to favour the A, B & C Class roads that form the principal city transport arteries when compiling annual road maintenance programmes. Despite this, there appears to be a deteriorating trend in the condition of the classified network and little inroads in improving the condition of the unclassified network

- 4.15 The evidence from these Scottish Road Maintenance Condition Survey results indicates that significant levels of funding for road maintenance are still required not only to improve the condition of the road network but to maintain it at the current condition. While the increased funding made available in the 2008-2012 Capital Plan is being well utilised, the trends shown in the RCI values and the SCOTS report suggest that higher levels of funding will be required to arrest the deterioration and significantly improve the condition of the overall road network.

5 POLICY IMPLICATIONS

- 5.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management. There are no major issues.

6 CONSULTATIONS

- 6.1 The Chief Executive, Depute Chief Executive (Support Services), Director of Finance and Assistant Chief Executive have been consulted and are in agreement with the contents of this report.

7 BACKGROUND PAPERS

- 7.1 None.

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15 September 2010

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