

ANGUS COUNCIL

ROADS COMMITTEE

14 JUNE 2001

SKIDDING RESISTANCE ON A AND B CLASS ROADS
PROPOSED WORK PROGRAMME

REPORT BY THE DIRECTOR OF ROADS

ABSTRACT

This Report follows on Report No. 1236/00 - SCRIM Survey Results - Roads Committee 23rd November 2000 - and outlines a programme of work on A and B Class roads to bring certain sites up to a satisfactory standard of skid resistance in the interests of road user safety.

1 RECOMMENDATIONS

It is recommended that the Committee agree: -

- i) To note that a programme of work each year over the next few years will be required to address the sub-standard skid resistance on A and B Class Roads.
- ii) To approve the programme of work outlined in Appendix 1 of this Report to an estimated cost of £450k.

2 INTRODUCTION

Report No. 1236/00 informed the Committee that following a SCRIM Survey on 184km of A and B Class roads 20% of this length was found to have sub-standard skid resistance in wet conditions. From this information it was estimated that 89km of the 446km of A and B class roads fell below that required standard for skid resistance and required further investigation and probable surface treatment at an estimated cost of £1.5m which would require a significant programme to be carried out over the next few years.

3 DETAILS

Sub-standard skid resistance manifests itself in a loss of texture in the road surface material. Hot rolled asphalt surfaces depend on the micro texture of the surface of the stone chippings rolled into the asphalt and also the macro texture of the protrusion of these chippings above the holding asphalt coat. As the stone chippings wear there is a loss of both micro and macro texture which can be retrieved to some extent by mechanical methods of re-texturing using for example high pressured water jets which is analogous to sand blasting. Alternatively the sub-standard surface coat can be planed off and then resurfaced or it can be surface dressed (spray and chip) or

overlayed with a further coat of asphalt or other proprietary thin coat surfacing material.

Existing surface dressed roads lose surface texture by a build up of surplus bitumen which again can be treated by re-texturing or overlaying with a further surface dressing or a coat of bituminous macadam/proprietary thin coat surface.

In considering sites for the improvement of skid resistance cognisance has also to be given to the structural condition of the road. There is no value for money in surface dressing, re-texturing or re-surfacing roads which are also suffering from structural defects such as edge deterioration, cracking, wheel track rutting, unless these more deep-seated problems are tackled at the same time through local re-construction, patching and overlay works.

On sections where more substantial treatments are required to deal with deep-seated structural defects in conjunction with sub-standard skid resistance the unit cost of treatment per square metre will increase. On the other hand where the skidding resistance is low but there is no history of wet skidding accidents and a low-risk geometric configuration (e.g. straights, large radius curves, etc) it may be sufficient to erect warning signs without improving the surface texture of the road until such time as resurfacing becomes necessary to maintain structural integrity.

It will also be difficult to quantify the overall scale of the work required until SCRIM surveys have been carried out over the remainder of the network.

It is clear however that a programme of work will be required each year over the next few years to address these problems. Further SCRIM surveys will be required to establish the actual (rather than extrapolated) condition of the remainder of the A and B Class road network and to determine the rate of deterioration of those sections which have already been surveyed.

As a 'first phase' in tackling sites of sub-standard skid resistance, the SCRIM Survey results have been assessed together with structural condition to compile a prioritised list of sites which will give best value for the budget commitment for this purpose in the current financial year.

The sites proposed for treatment are listed and detailed in Appendix 1.

4 FINANCIAL IMPLICATIONS

Committee Report 1236/00 included an estimate of £1.5m to bring A and B Class roads up to the design standards for Skid Resistance. It was stated that this would require to be programmed over a number of years.

A budget of £450k has been allocated this financial year from CFCR to progress the treatment of skid resistance deficiency on A and B class roads in Angus, and this will make a significant contribution toward bringing low skidding resistance sections up to standard. However the previous estimate of £1.5m for the total programme was based on relatively low cost treatments such as surface dressing and re-texturing. It was also based on an extrapolation of the results of SCRIM surveys carried out to date.

For the reasons outlined in the body of the report it is not possible at this stage to quantify the full extent of sub-standard sections of the road network or the overall cost of appropriate treatments.

Once the additional survey data has been gathered and an action plan drawn up for the necessary programmes of work, further reports will be brought forward to give a more accurate and informed projection of the total funding requirement and the optimum timescale for the appropriate remedial treatment.

5 CONSULTATION

The Chief Executive, the Director of Law and Administration, Chief Constable and the Director of Finance have been consulted in the preparation of this report.

6 CONCLUSION

In order to address sub-standard skid resistance on A and B Class roads an initial programme of surface treatments has been compiled to give best value for the allocation of £450k budgeted for this purpose in the current financial year. The list of proposed sites and treatments is included in Appendix 1 of this Report.

Dr Bob McLellan
DIRECTOR OF ROADS

NOTE

The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information), were relied on to any material extent in preparing this Report:-

Report No 1210/99 - Road Safety Plan- Roads Committee 23rd November 1999

Report No 1236/00 - Skidding resistance on A and B Class Roads Scrim Survey Results - Roads Committee 23rd November 2000

DG/AS/JMcE
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