

## **Chapter 27**

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### **Maintenance of Regional and Local Roads**



## Maintenance of Regional and Local Roads

27.1 Regional and local roads account for 94% of the country's road network and carry over 54% of all road traffic. Local authorities are responsible for the construction, maintenance and improvement of those roads in accordance with Section 13 of the Roads Act 1993 (the Act). In order to supplement the resources available to local authorities in discharging this responsibility an annual investment programme of grant funding is provided by central government.

27.2 In September 2009 responsibility for the administration of the investment programme was transferred from the Department of Transport (the Department) to the National Roads Authority (NRA) pursuant to Section 32 of the Act. The decision was taken in order to better utilise resources which were available to the roads sector.

27.3 The NRA's main role is to provide technical support, advice and guidance to local authorities and to process grant payments under the programme. It is anticipated that the additional resource costs of the NRA associated with the role will be limited as use can be made of existing expertise and procedures within the NRA.

27.4 Funding provided to the NRA from the Local Government Fund for the purpose of paying those grants to local authorities amounted to €111 million in 2010. The Local Government Fund is administered by the Department of the Environment, Community and Local Government and is resourced from voted monies provided by the Oireachtas and motor tax receipts.

27.5 In 2010, the allocations to local authorities under the regional and local roads investment programme<sup>234</sup> were determined by the Department in conjunction with the NRA and comprised the following

- specific improvement grants for the provision of links to strategic routes
- strategic regional and local roads programme grants which facilitate development in line with the National Spatial Strategy
- maintenance and improvement grants allocated on a pro-rata mileage basis<sup>235</sup> to local authorities for projects such as surface dressing of roads, roads reconstruction and other road maintenance such as drain clearing and road markings
- block grants to urban authorities allocated based on population size
- local improvement schemes such as works on non-public roads financed through a mixture of public and private funds
- other projects including work on sign posting, footpaths, safety measures and training of staff involved in road maintenance.

27.6 In respect of regional and local roads, the NRA paid grants of €111 million in 2010 to local authorities – €300 million for construction and improvement and €11.4 million on maintenance and management. Figure 124 sets out the grants paid to local authorities in 2010 by type of funding.

<sup>234</sup> Separately, urban authorities, including five City Councils, five Borough Councils and 49 Town Councils, receive block grants for road improvements and maintenance in their administrative areas.

<sup>235</sup> These grants are allocated based on the relative mileage of road in each county. There is an exception in the case of the three Dublin County Councils who receive a higher allocation due to the additional demands on the road system in their areas.

**Figure 124 NRA Regional and Local Road Grants, 2010**

Grant type	Budget €m	Grants paid €m
<b>Road Construction and Improvement</b>		
Restoration Improvement	188.8	190.1
Specific Improvement	33.9	38.4
Strategic Projects	23.7	21.6
Urban Block Grant	26.5	26.0
Other Improvements <sup>a</sup>	29.6	23.9
	<b>302.5</b>	<b>300.0</b>
<b>Road Maintenance and Management</b>		
Restoration Maintenance	60.0	59.3
Discretionary Maintenance	51.0	51.7
Miscellaneous	0.4	0.4
	111.4	111.4
<b>Total</b>	<b>413.9</b>	<b>411.4</b>

Source: Department of Transport, Tourism and Sport

Note: a Other improvements includes safety measures, regional road signposting, footpaths and training.

## Chapter Focus

This chapter reviews the cost of surface dressing by local authorities under their restoration maintenance programmes. Given the transfer of function to the NRA and the variation in costs of road resurfacing works across local authorities I enquired as to

- the efficiencies being sought from the transfer
- the measures taken or proposed to reduce the unit cost rates of road resurfacing work.

## Unit Cost of Road Resurfacing

27.7 Included in the €59.3 million spent on restoration maintenance are grants aimed at protecting the structural integrity of roads by way of surface dressing and associated preparatory work<sup>236</sup> such as hedge and verge trimming.

27.8 Data on the average unit costs incurred by local authorities for surface dressing supplied to the Department of Transport for 2008 to 2011 indicated that there were significant variations in costs across different local authorities. Figure 125 sets out the average costs for the Dublin Area and the rest of the country by year. This indicates that outside the three Dublin County Council areas the average combined cost for regional and local roads was €4.96 per square metre in 2010 with the costs for the three Dublin areas significantly higher than the rest of the country at €27.53 in 2010.

**Figure 125 Average Resurfacing Costs under the Restoration Maintenance Programme, 2008 - 2011<sup>a</sup>**

Year	Average cost <sup>b</sup> outside Dublin (€/m <sup>2</sup> )			Average cost <sup>b</sup> in Dublin (€/m <sup>2</sup> )		
	Regional roads	Local roads	Overall	Regional roads	Local roads	Overall
<b>2008</b>	5.27	4.44	4.61	26.64	22.40	22.20
<b>2009</b>	5.25	4.34	4.56	26.50	14.84	18.29
<b>2010</b>	5.44	4.88	4.96	41.07	26.37	27.53
<b>2011 (projected)</b>	4.86	4.05	4.27	23.84	18.23	19.52

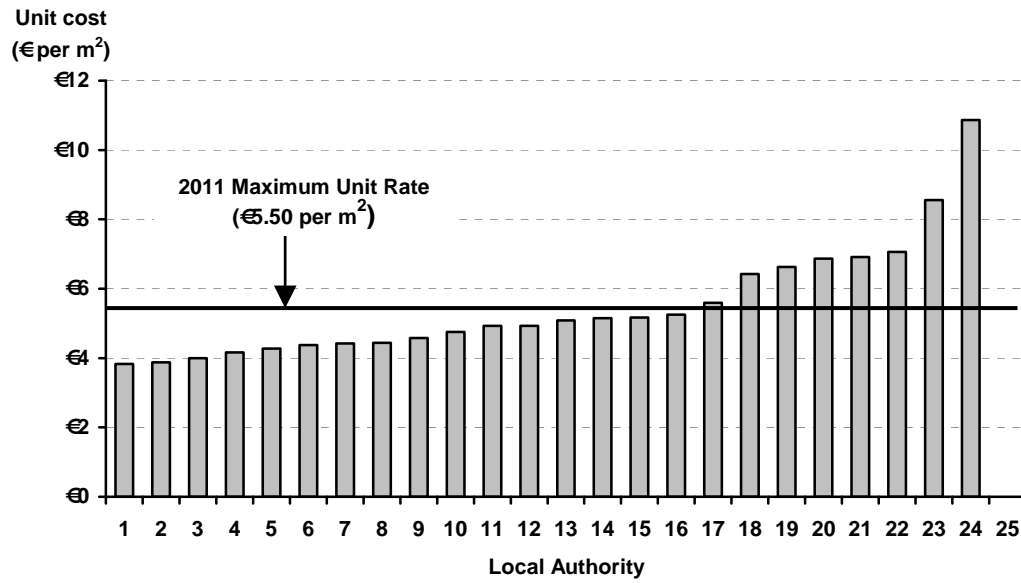
Source: Department of Transport, Tourism and Sport

- Notes:
- a No information was available from one county area for 2008, 2009 and 2010 and from one Dublin area for 2009.
  - b The overall averages are calculated on the basis of a weighted average between regional and local roads to get an average per county and then a straight average is calculated based on each county. The result is expressed as a cost per m<sup>2</sup>.

27.9 Figure 126 shows the spread of costs of road resurfacing for regional roads in 2010. Clare reported the lowest at €3.78 per square metre while Sligo, Kilkenny and Tipperary South recorded the highest rates at €10.87, €8.55 and €7.06 respectively.

<sup>236</sup> This excludes larger preparatory work such as drainage and pothole repair which are classified as Restoration Improvement.

**Figure 126 Spread of Resurfacing Costs for Regional Roads in 2010 (excluding Dublin Areas)<sup>a</sup>**

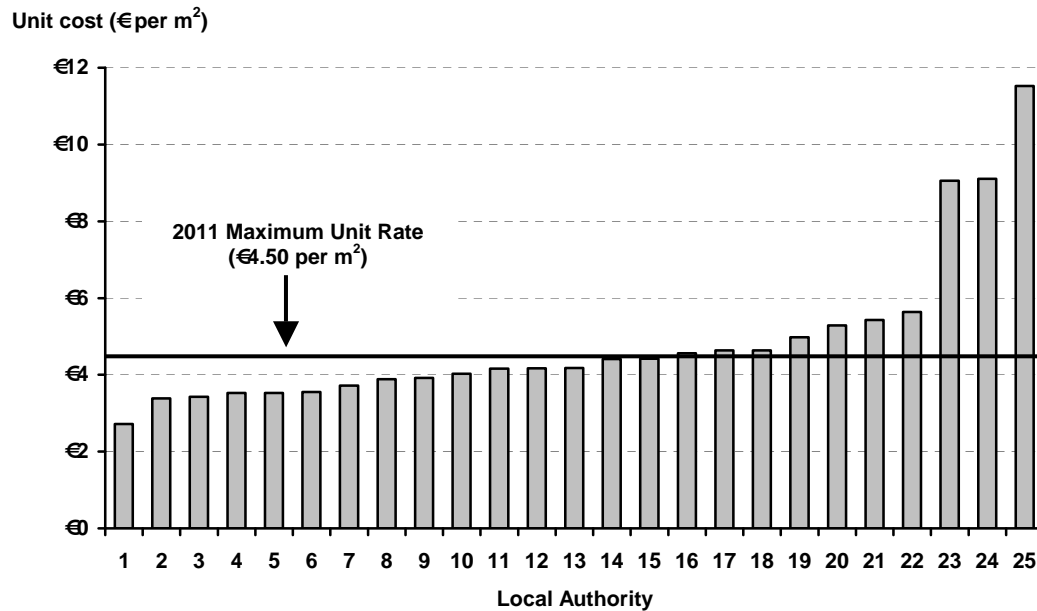


Source: Department of Transport, Tourism and Sport

Note: a No information was available from one local authority area.

27.10 Figure 127 shows the spread of costs of road resurfacing for local roads in 2010. Cavan reported the lowest cost for local roads at €2.72 per square metre while the highest rates were recorded by Sligo, Kilkenny and Tipperary South with rates of €11.53, €9.11 and €9.06 respectively.

**Figure 127 Spread of resurfacing Costs for Local Roads in 2010 (excluding Dublin Areas)**



Source: Department of Transport, Tourism and Sport

Note: No information was available from one county area.

27.11 Across the three Dublin areas there is a large spread in cost with Dun Laoghaire paying €50.75 per square metre in 2010, South Dublin €22.56 and Fingal €9.27.

27.12 In December 2010, the NRA, on behalf of the Department, issued a revised Memorandum on Grants for Regional and Local Roads which set out policies, practices and procedures determined by the Department relating to the regional and local roads investment programme. The Memorandum updated the conditions for grant funding for local authorities under a programme which provided that, for resurfacing works, local authorities must justify variations from national average costs. A subsequent circular issued by the NRA following discussion with the Department in February 2011 set maximum unit costs for 2011 of €4.50 and €5.50 per square metre for surface dressing for local and regional roads respectively. Where these rates are exceeded without a sufficient explanation, a council's grant will be reduced by an amount equal to the excess cost<sup>237</sup>.

### ***Views of the Accounting Officer***

27.13 In response to my enquiries the Accounting Officer stated that there are a number of reasons why the cost of surface dressing work can vary from county to county.

- Polymer modified bitumen emulsion is more expensive than normal bitumen emulsion. The former is often used on roads with high traffic volume.
- The cost of traffic control measures which are required will vary from site to site. In general the greater the level of traffic the more challenging and expensive the traffic control will be.
- The distance from the supply point to site in terms of bitumen emulsion and chippings will affect transport costs of materials.
- The number of suppliers of materials competing in different geographical regions will affect cost.
- Rates of spread of both bitumen emulsion and chippings will vary depending on the mix design which takes account of site conditions.
- Variations of the normal single surface dressing are sometimes required to ensure that the proposed surface treatment will fully rectify the deficiencies in the condition of the existing road. Such treatments include racked-in dressing, double dressing, pad coat plus single dressing and sandwich dressing.

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<sup>237</sup> Consequently, the amount paid will be the lesser of the actual cost or the maximum set by the Department.

## Surface Dressing

### *Rural Roads*

Surface dressing involves the uniform application of a bituminous binder sprayed onto a road surface followed by a layer of single sized chippings. The application of a surface dressing is a maintenance treatment which can extend the life of a road pavement that is beginning to show signs of distress (e.g appearance of minor cracks). This essential preventative work also improves the skid resistance of the road. Because of the process involved it is suited to rural roads but not to urban roads since in urban areas the liquid bitumen emulsion and loose chips would get transferred to footpaths and into shops/houses.

### *Urban Roads*

In urban areas an alternative more expensive process and more expensive materials need to be used. Options such as Hot Rolled Asphalt (HRA) with pre-coated chips or Stone Mastic Asphalt are used and while these are longer lasting they are significantly more expensive. Apart from being more expensive these materials have a greater depth than surface dressing material (and thus strengthen the road as well as seal it). The extra depth of HRA and other such materials means that in urban areas some of the existing road pavement may need to be excavated or the levels of kerbs, manholes and gullies raised to compensate for the depth of overlay. The more built up an area is the less likely it is that less expensive surface dressing options can be used.

27.14 The Accounting Officer stated that, in general, rural roads that are amenable to surface dressing work predominate in the areas outside Dublin but these counties still have some roads that pass through urban areas and which require a more expensive surface treatment. These roads are being identified as part of a checking process which is now in place. In some instances, where explanations have been sought from councils this year by the NRA it has emerged that work on roads in urban areas account for rural councils breaching the maximum rates set for 2011. For this reason, it is proposed to amend the reporting requirements in 2012 so that councils will identify this type of work upfront and track its cost.

27.15 He stated that the Dun Laoghaire/Rathdown and South Dublin County Councils are very urbanised and may carry out no surface dressing work in a particular year. Fingal has some rural roads and some surface dressing work is carried out on them. In turn, this brings down the average unit cost of work undertaken by Fingal under its Restoration Maintenance grant.

27.16 He stated that, given the various factors involved in surface dressing costs, the Department has not to date set an overall efficiency target. 2011 is the first full year for the operation of the maximum unit rates and the aim is to track costs and outputs over a period of time to assess the results being achieved.

## Conclusion

Responsibility for the administration of the local and regional roads programme was transferred from the Department of Transport to the National Roads Authority in late 2009 with the intention of obtaining improved efficiencies.

The National Roads Authority administered the payment of grants of €11 million in 2010 under the associated road investment programme in accordance with this transfer of function.

In the case of Restoration Maintenance grants, an analysis by the Department of Transport of the unit cost of surface dressing of roads indicated wide variations in cost between local authorities. Information was not available from some local authorities.

The Department of Transport and the National Roads Authority have set maximum unit costs for surface dressing work for local authorities for 2011 and have stipulated that costs in excess of those rates will not be reimbursed unless a sufficient explanation for the variation is provided.

The Department intends to amend reporting requirements to identify resurfacing work on urban roads within local authority areas given the higher treatment costs for those type of roads.

