

**ENVIRONMENT, CULTURE AND COMMUNITIES OVERVIEW AND SCRUTINY PANEL  
18 OCTOBER 2011**

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**A322 BAGSHOT ROAD RESURFACING PROJECT  
Chief Officer: Environment & Public Protection**

**1 PURPOSE OF REPORT**

- 1.1 The meeting of the Environment, Culture and Communities Overview and Scrutiny Panel on 21 June requested that Members be provided with details of the investigation into the cause of the failure to the A322 Bagshot Road resurfacing project and the action taken to address the problems caused.
- 1.2 This paper appraises Members in light of that request and draws out not only the details as to what went wrong and why but also how the problems were addressed and what learning arose.

**2 SUPPORTING INFORMATION**

- 2.1 Members will recall that the essential resurfacing works undertaken in June to the A322 Bagshot Road failed. As reported to the last meeting, the Contractor accepted liability and agreed to put in place arrangements to rectify the defective road surface. Those works were carried out over the weekends of the 16/17, 23/24, and 30/31 of July 2011.
- 2.2 Pending the repair, where a surface dressing such as was used on this road starts to fail, the only rectification works that can initially be undertaken is to monitor the site and carry out a continuous regime of sweeping to remove the excess aggregate. It is also imperative to keep traffic speeds to a minimum to reduce potential accidents on site. Accordingly, a temporary maximum speed limit of 30 MPH was imposed which was the lowest level we could seek on that road. We also advised a 20MPH speed limit simply because of the road condition. The 30 MPH speed limit remained in place until completion of the remedial surfacing works on both carriageways.
- 2.3 The initial and remedial works were both effected via Ringway using Eurovia Specialist Treatments (EST). EST is an accredited organisation that undertakes over 5 million square metres of surface dressing on an annual basis. Over the past 5 years the level of failure on their annual programmes has been less than 1%, which puts into context the disappointment in relation to this site.
- 2.4 In deciding how best to deal with the problem there was considerable discussion with the Contractor as to the options available having regard to three main factors:
  - (1) cost - the Council can only demand what is reasonable to effect the previously specified standard of works;
  - (2) impact - how best to limit the level of disruption on the road; and
  - (3) effectiveness - the agreed solution must be fit for purpose.

- 2.5 The method finally agreed to be used to repair the road involved considerable additional cost to the Contractor. The specification required a two-coat application of the surfacing material; the first to 'regulate' (smooth out) the existing uneven surface and the second to provide the longevity expected of all renewed highway surfaces.
- 2.6 Night time work was considered as a way to reduce traffic delays but the materials to be used needed warm temperatures to cure properly before the road could be opened for use. The risk of temperatures falling below those required and thereby causing failure or requiring that the work stop, was considered too high. Taking all factors into account it was agreed to focus on just one carriageway at a time and to allow sufficient closure time to do the works without undue pressure being exerted. The remedial surfacing resulted in an increased depth of material and this in turn necessitated the raising of the road side gullies. This extra work was undertaken at night after the road surfacing was completed.
- 2.7 Arrangements were put in place to close the road dealing with the Bracknell inbound lanes first. As with most road works the window of opportunity was restricted and the earliest weekend available was the 16/17 July. Unfortunately, bad weather again hampered progress and by the end of that first weekend the works were not finished. The next weekend was already scheduled for the outbound lanes to be resurfaced and this was completed without further problem. Because the inbound lanes were not finished we had to take up a third weekend and again close the road albeit for a shorter period of time.

### **Planning the works**

- 2.8 When closing any road the Council has to look to how best to try to minimise the disruption. The nature of this project was problematic in two ways. Firstly the A322 is a major thoroughfare connecting the M3 and M4 for all those looking to avoid the M25. Secondly, we have to have regard to what other road works are taking place relative to the diversions that would be required. This is always challenging but this year has been particularly difficult with so many other important roads being worked on.
- 2.9 In the planning process it was recognised that the diversion signage needed to be better than before. Accordingly, we erected signs further out from the road works including the M3. We again asked for help from the Highways Agency and this time we were successful. They used their overhead variable messaging system to give advance warning of the road closures and thereby helped us encourage early diversion. There was also a significant amount of media coverage and again the national media picked up the road closure details. Despite this there was still major impact locally as there are very few alternatives to using the A322. The works to Crowthorne High Street had already put added pressure on the Crowthorne by-pass. Whilst there was disruption the number of complaints over the period was less than before.

### **Cause of failure**

- 2.10 The reason for the failure has been investigated by Officers, EST and their technical department. The conclusion is that the primary and secondary aggregates used on the site were significantly out of specification, both having an excess of fine particles. This, compounded with the onset of heavy rain immediately following the works on the evening of Sunday 5 June, resulted in the total failure of the dressing. It is clear from the investigations carried out by EST that insufficient pre-testing of the

aggregates was carried out. This is primarily due to the materials arriving at the site compound only a few days prior to the works being undertaken. EST has also identified that the on site checks of the aggregate during the application of the surface dressing by contracting staff were not rigorous enough. There has been learning for all parties and action in response to the failings.

### **Learning**

2.11 As a result of this failure the following measures will be implemented by EST and their clients to ensure failures of this nature do not re-occur either locally or nationally:

- On all major high speed roads requiring treatment EST have instructed that all materials are delivered to site/depots at least two weeks in advance of the works being undertaken so that sufficient testing of the products can be carried out and results analysed before the commencement of works.
- Any materials failing to comply with the required specification are to be removed from site and replaced with proven compliant material.
- When undertaking this type of work EST will also assess the weather reports 24 hours in advance of application so that the potential weather risks can be assessed and the option of postponing works discussed with the client.
- Further instruction/training is to be given to all operatives and supervisors regarding the need for checking of products by the EST Technical Department.
- EST are also proposing to introduce in 2012 a dedicated High Speed Roads Surface Dressing Team that are fully aware of the specific Health, Safety and Quality issues relating to roads of this type.

2.12 The original works caused inevitable disruption. This particular road is a significant regional link between the M4 and M3. Its closure impacts not only on this Borough but also beyond. The alternatives are few and far between. Local signage was considered poor by the public. There was learning from this experience following the failure and such learning was applied when the remedial works were carried out. The Highways Agency were more supportive and perhaps because of the failure there was much more media interest. There were still complaints about disruption.

### **Conclusion**

2.13 It is clear that the nature of the work and the subsequent failure caused major local disruption over a number of weekends. The Council had commissioned works (ie resurfacing of the road) that had not been successful on the first attempt. Indeed the initial work had made the road worse and we were left with a totally unsatisfactory surface requiring urgent remedial action. Our term Contractor recognised this and accepted their liability without question.

## **3 EQUALITIES IMPACT ASSESSMENT**

3.1 Not applicable.

## **4 STRATEGIC RISK MANAGEMENT ISSUES**

4.1 None.

### Contact for further information

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### Document Reference

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