

Magnolia Avenue Cliftonville – Road Noise Complaint

A report by the Head of Community Operations to the Highways Advisory Board on 8 July 2008

Introduction

1. A resident of Magnolia Avenue, Cliftonville approached KHS last year concerning the road noise that he was experiencing in his bungalow. This resulted in a vibration investigation by KHS and a report to the Thanet Joint Transportation Board (JTB) on 11 June 2008. The motion that was adopted was that the matter of concrete roads be referred to the Highways Advisory Board. The draft minute of the JTB is contained in appendix 1, the report to the JTB is in appendix 2, a plan of the area of Cliftonville is in appendix 3 and photographs indicating the condition of Magnolia Avenue are in appendix 4.
2. As can be seen from the photographs the condition of Magnolia Avenue is such that there are no hazards present. The small blacktop patch to the bottom right of the second photograph was carried out to take up the small amount of settlement that had occurred at one of the joints in the concrete slab, even though this was below normal intervention levels.
3. Concrete roads are generally built on areas of poor ground conditions and over time voids form beneath them, this is quite normal. The resident complains that road noise and vibration is transmitted through these voids into his and other residents homes. Sound tests were carried out inside one of the properties and it was found not to be measurable as it was below the ambient noise level.
4. Concrete roads were generally built in the 1950's and 60's and have performed extremely well considering that their design life was for 40 years. They are now emerging as a significant maintenance problem throughout Kent and are very expensive to repair once they have failed. As a result of this high cost they have a low priority for funding and only receive funding when failure has occurred and action is necessary. This now needs to be addressed by a review of the policy on maintenance of concrete roads.
5. As part of the 2008 annual survey of the roads in Kent, KHS have been asked to identify all concrete roads and determine their relative condition. This will enable a priority to be established so that funding can be allocated to the most urgent cases and a comparison made with the repair of blacktop roads.
6. In addition KHS have been asked to identify suitable low cost, long term repair methods. It is suggested that funding be allocated so that pilots of the various methods are carried out to evaluate the methods for suitability and cost.
7. Magnolia Avenue will have to take its turn once its priority has been established by the survey.

Conclusions

8. The inspection and sound checks etc have not identified the need for any short term action at Magnolia Ave. KHS is progressing identification of all concrete roads and are determining their condition. The assessment will identify the position of Magnolia Ave. and whether any long term action has a priority or is necessary. This will be followed by a policy review on the maintenance of concrete roads.

Magnolia Avenue Cliftonville – Road Noise Complaint

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| Contact Officers: | Kim Hills | 01622 221095 |
| | Dennis Button | 01227 825266 |

Draft Thanet Joint Transportation Board 11 June 2008 Minute

R32 MAGNOLIA AVENUE

The Kent Highway Services (KHS) Community Delivery Manager: Dennis Button outlined his report to Members of the Board and also used photographs to illustrate issues contained within his report.

Mr Waterer a resident of Magnolia Avenue addressed the Board outlining his dissatisfaction with the condition of the road and the inconvenience and noise the road causes. He added that the residents of Magnolia Avenue were very frustrated with the lack of progress made towards fixing the problems associated with the condition of the road.

Dennis Button acknowledged the concerns of the residents of Magnolia Avenue, but said that this was not among the worst concrete roads in Kent. He added that as part of the annual survey, KHS would be identifying all the concrete roads in Kent. This would then enable KHS to prioritise repairs to concrete roads where the need was greatest.

Councillor Hart stated that many houses in Magnolia Avenue were affected by the noise from the road and that he thought that the matter should be referred to the Highways Advisory Board and asked for the possibility of being included in a pilot scheme fixing concrete roads

Dennis Button explained that the void beneath Magnolia Avenue was typical of concrete roads and was caused by the chalk beneath the road washing away over time. He added that pumping the road with grout was not a practical solution, but a new type of vacuum grouting is available and could be suitable in this location.

Councillors E Green and D Green queried what timescale and criteria would be used to identify roads to be included a pilot scheme.

Dennis Button stated that he if the matter was referred to the Highways Advisory Board the result might be for a pilot scheme to investigate how to fix concrete roads in Kent. If this was approved then he thought that the pilot scheme would be able to start in the coming months. Any selection criteria would be identified during the survey of concrete roads in Kent.

Councillor Hart asked if either closing one end of Magnolia Avenue or issuing weight restrictions would be possible in the short term.

Dennis Button replied that any closures would need public consultation and that a weight restriction would be reasonable if a danger had been proved, but none had yet been identified.

Proposed by Councillor Hart and seconded by Councillor Poole that:

“The issue of Concrete Roads be referred to the Kent Highways Advisory Board”

MOTION ADOPTED

Report to Thanet Joint Transportation Board 11 June 2008

Magnolia Avenue Cliftonville – Road Noise Complaint

A report by the Head of Community Operations to the Thanet Joint Transportation Board on 10 June 2008

Introduction

1. In August 2007 a resident of Magnolia Avenue who had recently moved into his property complained to Kent Highway Services, through the Kent Messaging System, of the road noise he was experiencing in his bungalow. Prior to this no other complaints had been received.
2. Cllr Hart requested that the matter be referred to this Board for consideration and this report gives Members the current position with regard to the road's condition, the Highway Authority's responsibilities and priority for any remedial works.

Background

3. Magnolia Avenue, is a residential road in the Palm Bay area of the Cliftonville Ward and links Clarence Avenue with Princess Margaret Avenue. The road serves as an access to Simon Avenue, David Avenue, and Victor Avenue and was constructed in concrete bays. It appears from Ordnance Survey records the road was constructed during the 1960's although it is difficult to be precise. Traffic volumes are light as would be expected in a residential area of detached properties.
4. Following the initial complaint, investigatory works were undertaken which identified voids beneath the concrete carriageway. Concrete filled sandbags were placed beneath the concrete slab in the area where the road had been excavated for these works but it was clear there were voids remaining under this road. The extent of the voids has not been determined.
5. Although there are voids beneath the concrete slab it is quite normal for concrete roads to have voids beneath them. Generally, concrete is used where the ground conditions are poor and there is likely to be settlement. The concrete would be reinforced and dowelled into the adjoining slabs such that it spans any voids. It is also normal for concrete roads to produce more road noise than a tarmac road by the nature of the material. A concrete road will include construction joints and the surface may not be as smooth depending on how well it was tamped and finished.
6. The road had been inspected on many occasions since the original complaint and there were no defects that met the Highway Authority's criteria for repair. Kent Highways, as the Highway Authority, has a statutory duty to maintain a safe surface on the highway for the passage of the highway user in accordance with Section 41 of the Highways Act 1980 and had met its obligations in this respect.
7. There was continued representation from both the County Member and the resident regarding this 'intrusive' noise. Kent Highway Services commissioned their Alliance Partners, Jacobs, to undertake sound and vibration tests to determine the severity of the problem. On attending site to carry out the vibration survey the Engineer received confirmation from resident that the problem was not being caused by vibration therefore the vibration test did not proceed.

8. On completion of the sound tests the acoustic engineers concluded that whilst the noise was just audible, the level was sufficiently below the ambient noise level not to be measurable. Indeed during one of the site visits the sound level did not register on the sound level meter when the offending peak noise levels occurred. Noises may be up to 10 decibels below ambient noise levels and still be audible but be immeasurable.

9. There is no Legislation which applies in respect of road noise and in fact roads are specifically exempted from the Control of Pollution Act 1974, which covers nuisance noise. Also, there is no duty placed upon the Highway Authority to mitigate against vibration.

10. Following yet further communication with the County Member and resident, Kent Highways laid a tarmac fillet in front of the concrete slab joint to improve the level difference although this did not meet the criteria for such work. However, this attempt to try and lessen the noise has, according to the resident, not been successful.

Present Situation

11. The road has been regularly inspected since the initial complaint last August and is safe for the highway user. There has not been any movement in any of the concrete slabs.

12. There are voids below very many of the concrete roads in Kent by nature of their construction methods and there are more urgent cases for major repair than Magnolia Avenue. The whole issue of concrete roads in Kent is being investigated to find a long term repair mechanism. It is not as simple as digging up the old concrete road and resurfacing in black top because of the shallow depth of utility mains and cables and this would be very expensive.

13. Although remedial works for Magnolia Avenue have not been costed they will clearly be several thousand pounds. There is no budget to rebuild concrete roads across Kent so a low cost innovative solution is being sought which is, as yet, not obvious. If a technical solution is found it will not solve the budget problem or the priority.

Conclusion

14. Bearing in mind the surface of the road is safe for the highway user, and there is no statutory legal obligation to mitigate against road noise and vibration it is recommended, subject to the views of this Board, that the road is inspected at more regularly intervals than normal to monitor any deterioration. All concrete roads in Kent are to be assessed and each road will have to compete for priority, with those in the most severe condition being attended to first.

Contract Officer

Peter Burton 01227 825334

Community Operations Engineer

Background documents

Letter from Jacobs Acoustic Engineer

Location Plan of Magnolia Avenue, Cliftonville



Photographs of Magnolia Avenue, Cliftonville

