

Public Document Pack

Executive Member Decisions

Friday, 6th January, 2023
10.00 am

AGENDA

1. **Approve Road Vibration Procedure**
EMD approve Road Vibration Procedure **2 - 12**
Road Vibration Rationalisation
Road Vibration Reporting Procedure

Date Published: Friday, 6th January, 2023
Denise Park, Chief Executive

EXECUTIVE MEMBER DECISION



REPORT OF:	Executive Member for Environment & Operations
LEAD OFFICERS:	Strategic Director of Environment & Operations
DATE:	06 January 2023

PORTFOLIO/S AFFECTED: Environment and Operations

WARD/S AFFECTED: (All Wards);

SUBJECT: Traffic-induced noise and building vibration

1. EXECUTIVE SUMMARY

The Highway Authorities duty under Section 41 of The Highways Act 1980 is to maintain the highway so that it is free from danger to all users. The Council however has no duty to investigate traffic-induced noise and building vibration generated by road users. It is proposed that two documents (Road Vibration Rationalisation and Road Vibration Reporting Procedure) are used to set the process and limitations the Council will apply to reports of road vibrations.

2. RECOMMENDATIONS

That the Executive member for Growth and Development approves the proposed procedure and rationale:

3. BACKGROUND

Damage to properties is unlikely to occur as a result of vibrations caused by traffic. Research undertaken by the Transport Research Laboratory on the effects of ground-borne vibrations caused by road humps (TRL416), and traffic induced vibrations in buildings (Research Report 246) found that only in unusual circumstances is it likely that there will be a risk of superficial building damage. There is no evidence that more serious structural damage could occur.

The Highway Authorities duty under Section 41 of The Highways Act 1980 is to maintain the highway so that it is free from danger to all users. The Council however has no duty to investigate traffic-induced noise and building vibration generated by road users.

Many structural problems are not related to the public highway but instead caused by other factors.

Homeowners or their insurers must commission a structural survey of their property. Only on receipt of sufficient evidence from a trained and competent assessor will action be considered.

If action is deemed as necessary to prevent further damage to a property from traffic-induced vibration, the works will be limited to surfacing works and will be added into the maintenance programme pending funding availability. No compensation shall be paid for damage caused by traffic-

induced vibration, as the Council has no duty to protect properties from traffic-induced vibration. The duty is to keep the highway safe for highway users and this is dealt with by the Highway Safety Inspection Procedure.

It is recommended the engineering evidence provided follows the suggested format and includes content as given in Annex A (BS 6472-1:2008), or a template assessment report can be provided through contacting Highways@blackburn.gov.uk.

4. KEY ISSUES & RISKS

Failure to have a procedure may result in inconsistent outcomes for the public and could weaken the Council's insurance defence against insurance claims.

Publishing a procedure will set stakeholder expectations and allow the public to understand the Council's statutory duty.

5. POLICY IMPLICATIONS

This procedure aims to formalise existing practice and approach. No new policy implications.

6. FINANCIAL IMPLICATIONS

This procedure aims to formalise existing practice and approach. No new financial implications.

7. LEGAL IMPLICATIONS

The Council has a duty to maintain the highway under section 41 of the Highways Act 1980. A procedure is already well established to manage this duty however road vibrations are often wrongly attributed to the S41 duty. The proposed procedure clearly identifies road vibration as a separate issue and aims to formalise existing practice and approach.

8. RESOURCE IMPLICATIONS

None

9. EQUALITY AND HEALTH IMPLICATIONS

Please select one of the options below. Where appropriate please include the hyperlink to the EIA.

Option 1 ☒ Equality Impact Assessment (EIA) not required – the EIA checklist has been completed.

Option 2 ☐ In determining this matter the Executive Member needs to consider the EIA associated with this item in advance of making the decision. (*insert EIA link here*)

Option 3 ☐ In determining this matter the Executive Board Members need to consider the EIA associated with this item in advance of making the decision. (*insert EIA attachment*)

10. CONSULTATIONS

Consultations have taken place with senior officers in highways and insurance.

11. STATEMENT OF COMPLIANCE

The recommendations are made further to advice from the Monitoring Officer and the Section 151 Officer has confirmed that they do not incur unlawful expenditure. They are also compliant with equality legislation and an equality analysis and impact assessment has been considered. The recommendations reflect the core principles of good governance set out in the Council's Code of Corporate Governance.

12. DECLARATION OF INTEREST

All Declarations of Interest of any Executive Member consulted and note of any dispensation granted by the Chief Executive will be recorded and published if applicable.

VERSION:	1
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CONTACT OFFICER:	Paul Withington
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DATE:	05/01/2023
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BACKGROUND PAPER:	Road Vibration Rationalisation Road Vibration Reporting Procedure
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Road Vibration Rationalisation

Damage to properties is unlikely to occur as a result of vibrations caused by traffic. Research undertaken by the Transport Research Laboratory the effects of ground-borne vibrations caused by road humps (TRL416), and traffic induced vibrations in buildings (Research Report 246) found that only in unusual circumstances is it likely that there will be a risk of superficial building damage and there is no evidence that more serious structural damage could occur.

The Highway Authorities duty under Section 41 of The Highways Act 1980 is to maintain the highway so that it is free from danger to all users. We however have no duty to investigate traffic-induced noise and building vibration generated by road users.

Many structural problems are not related to the public highway but instead caused by other factors.

Homeowners or their insurers must commission a structural survey of their property. Only on receipt of sufficient evidence from a trained and competent assessor will action be considered.

If action is deemed as necessary to prevent further damage to a property from traffic-induced vibration, the works will be limited to surfacing works and will be added into the maintenance program pending funding availability. No compensation shall be paid for damage caused by traffic-induced vibration, as the council has not duty to protect properties from traffic-induced vibration. The duty is to keep the highway safe for highway users and this is dealt with by the Highway Safety Inspection Procedure.

It is recommended the engineering evidence provided follows the suggested format and includes content as given in Annex A (BS 6472-1:2008), or a template assessment report can be provided through contacting Highways@blackburn.gov.uk.



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Blackburn with Darwen Borough Council

Highways Department

Road Vibration Reporting Procedure

DOCUMENT CONTROL

Title: Road Vibration Reporting Procedure

Version Number: V1.0

Status: Current

Version	Date	Prepared By	Check By	Date Approve to BwDBC
1.0	20/06/2022	Paul Fletcher	Paul Withington	

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Introduction

Damage to properties is unlikely to occur as a result of vibrations caused by traffic. Research undertaken by the Transport Research Laboratory the effects of ground-borne vibrations caused by road humps (TRL416), and traffic induced vibrations in buildings (Research Report 246) found that only in unusual circumstances is it likely that there will be a risk of superficial building damage and there is no evidence that more serious structural damage could occur.

Our duty as the Highway Authority, under Section 41 of The Highways Act 1980, is to maintain the highway so that it is free from danger to all users. We however have no duty to investigate traffic-induced noise and building vibration generated by road users.

Many structural problems are not related to the public highway but instead caused by other factors.

The aim of this procedure is to ensure all complaints or reports of vibrations felt within a property, suspected to be caused by the condition of the highway, are recorded, and processed in a concise and systematic way.

Management of the highway network is a high profile public service, and as an authority we need to accommodate and process considerable volumes of correspondence, telephone calls and other forms of communication from users of the highway network. The efficiency and courtesy of response will determine to a large extent the local opinion of the service and the authority.

This Code is not intended to deal in detail with principles and practices of customer care or the new approaches of integrated "Customer Relations Management" (CRM). It will however focus on certain key aspects of particular relevance to highway maintenance.

The information associated with complaints and reports of highway faults and the action taken will play an important role in the defence of any claim against the highway authority for failing in its statutory duty to maintain the highway.

This procedure will be reviewed in line with changes to any relevant statutory duties.

Recording of Information

All communication, whether received via telephone, letter, or e-mail must be recorded on the Highway database.

The first key issue is the need to establish whether the customer report/complaint is that of a potential safety defect, in which scenario the Highways Fault Reporting Procedure is to be followed, or in reference to vibrations felt from within a property due to the condition of the highway, in which this procedure is relevant.

When taking reports over the telephone or through other means of verbal communication, it is important to try to get the essential information listed below:

- Name and Address of person giving the report
- Contact telephone number and/or email address.
- Detailed description of the fault/defect
- Exact location of the fault/defect

The next section of this procedure will outline how reports of faults/defects and service requests should be logged on to the Highway database and then processed.

Received via Telephone or Verbally

1. The person taking the call gathers as much detail as possible, (especially the essential information mentioned previously), in order that an informed decision can be made.
2. The person who took the call should enter full details of complaint/problem onto the Highway database.

Received via E-Mail

1. The person who receives the e-mail should enter full details of complaint/problem onto the Highway database.

Once the information has been obtained and logged on to the Highway database, our advice is for customers (as homeowners) or their insurers to consider commissioning a structural survey of their property.

As we have no duty to investigate, the onus is on the Customer to provide supporting engineering evidence that the condition of the highway is a contributing factor to the vibrations felt within their properties, it is recommended the engineering evidence provided follows the suggested format and includes content as given in Annex A (BS 6472-1:2008). A template assessment report can be provided through contacting Highways@blackburn.gov.uk, and shown in Appendix A.

Appendix A

Suggested Format and Content of an Assessment Report (in accordance with Annex A BS 6472-1:2008)

General Information

Location of Vibrations	
Dates and Times	
Person/People carrying out measurement(s) and assessment(s)	

Information about the vibration under investigation

Character of the vibration: continuous, intermittent, occasional, impulsive	
Frequency of occurrence and durations	
Receptor locations, building/floor/ground types and vibration direction(s)	
Information about source of vibration (e.g. type of vehicle)	

Instrumentation and analysis

Transducer(s) and calibrators: types and serial numbers, calibration history	
Signal processing and recording equipment	

Post-processing/analysis
equipment, including details
of software

Measurement procedure

Location of transducer(s)

Method(s) of fixing
transducer to measurement
object or surface

Vibration parameters
measured, number, times
and duration of
measurements

Calibration procedure(s)

Background levels of
vibration (in absence of
source)

Information about
measurement surface, e.g.
floor or ground, description of
any preliminary tests carried

Analysis procedure(s)

Full explanation of how
VDV's are derived from
measurement results

Information about any
measured or estimated
transfer functions used in the
analysis (e.g. seats, beds, or
from external ground to floor
of building)

Statement of results

Statement of measurement
uncertainty and/or confidence
limits of measured values

Results of predictions of levels of vibration

Results of any predictions, accompanied by details of the prediction method, of any assumptions or limitations involved, and of the input data

Information about parallel effects

All information about any parallel effects, structure-borne noise, airborne noise, induced rattling, visual effects, influence of a third party

Assessment

Assessment method and results of the assessment(s) e.g. in terms of probability of adverse comments

Subjective observations

Any other relevant observations not already included e.g. subjective impressions by the person carrying out the measurements, or anecdotal information conveyed to him or her by third parties