

Our ref: CRS 766056

Highways England 2nd Floor Bridge House 1 Walnut Tree Close Guildford GU1 4LZ

19 October 2018

Dear

## A27 Langstone Interchange flyover

We have now completed our search for the information you requested on 28 August 2018 in relation to the A27 Langstone Interchange flyover. Your request has been dealt with under the terms of the Freedom of Information Act 2000.

I've attached BD33/94 and BA26/94 which are the design standards for bridge deck joints, along with the Maurer product catalogue.

The original installation was a <u>buried joint</u> (Joint Type 1 as per BD33/94), which allowed for minimal movement. Ideally up to 20mm, in practice no more than about 10mm before surface cracking occurs.

The new installation is an <u>elastomeric in metal runners</u> (EMR) (Joint Type 6 as per BD33/94), which allows for more movement, and accommodates the movement using a rubber strip thereby eliminating surface cracking.

An idealised image of the type recently installed is given on page 8 of the Maurer catalogue, captioned 'MAURER Single Seal Joint'.

The noise is unfortunately generated by the air gap between the surface and the rubber seal as shown in this image. When vehicles pass over it, the rubber is affected by a vacuum resulting in a noise.

It should also be noted that the original arrangement had differing joint types across the width of the deck, which does not provide for effective water-resistance and is not inkeeping with the design requirements. The adjacent carriageway already had an EMR joint type, so in keeping with the standard we installed an EMR in this carriageway in an effort to provide a continuous, water-resisting seal across the width of the deck.



If you have any queries about this letter, please contact me. Please remember to quote reference number CRS 766056 in any future communications.

If you are unhappy with the way we have handled your request you may ask for an internal review within 2 months of the date of this response for Freedom of Information requests and within 40 days for Environmental Information Regulations requests. Our internal review process is available at:

https://www.gov.uk/government/organisations/highways-england/about/complaintsprocedure

If you require a print copy, please phone the Information Line on 0300 123 5000; or email <u>info@highwaysengland.co.uk</u>. You should contact me if you wish to complain.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office Wycliffe House Water Lane Wilmslow Cheshire SK9 5AF



