

**TRANSPORT AND WORKS ACT 1992  
TRANSPORT AND WORKS (INQUIRIES PROCEDURES)  
RULES 2004**

**NETWORK RAIL (HUDDERSFIELD TO WESTTOWN  
(DEWSBURY) IMPROVEMENTS) ORDER**

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**REBUTTAL PROOF**

**RELATING TO PROOF OF EVIDENCE HARGREAVES (GB)  
LTD, NEWLAY ASPHALT LTD, NEWLAY READYMIX LTD,  
NEWLAY CONCRETE, DEWSBURY SAND AND GRAVEL  
LTD, AND WAKEFIELD SAND AND GRAVEL LTD (OBJ/18-  
22,29)**

***Graham Foulkes – Traffic and Transportation***

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Author	Network Rail
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**The Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order 19 October 2021**

*NR/PoE/REB/GF/07Traffic and Transportation Rebuttal*

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## **GLOSSARY**

<b>Abbreviation</b>	<b>Definition</b>
ATC	Automatic Traffic Count: A form of traffic count using either temporary tubes across a road or permanent induction loops buried into the road surface. Both are pre-programmed to record vehicles by specified types, eg, Cars, Light Goods Vehicles, Heavy Goods Vehicles, Buses, Motorcycles, and can record speed.
SATURN	The Simulation and Assignment of Traffic to Urban Road Networks software is a package of traffic modelling suites developed continually since the late 1970s heavily used to study the effects of proposed changes to highway networks, including bypasses, major development, road closures and motorway widenings.
V/C ratio	This is the traffic Volume (or numbers of vehicles) divided by the Capacity of a section of road which gives a good indication of highway operation. Values above 1.0 indicate that traffic demand is greater than the capacity available and queues are likely to develop quickly. Values under 1.0 indicate that traffic flows are within capacity.

## **1. INTRODUCTION**

### **1.1 Introduction**

1.1.1 The following are Network Rail's responses to the Proofs of Evidence of the following:

- Elizabeth Green on behalf of Newlay Concrete Limited

## **2. NETWORK RAIL'S REBUTTAL OF OBJECTOR'S EVIDENCE**

### **2.1 Newlay Concrete Ltd (Elizabeth Green)**

#### Introduction

2.1.1 Elizabeth Green on behalf of Newlay Concrete Limited has raised matters in her Proof of Evidence relating to traffic and transportation aspects of the Network Rail (Huddersfield to Westtown (Dewsbury) Improvements Order.

2.1.2 In this rebuttal proof I respond to certain of the matters raised in her Proof of Evidence by Elizabeth Green.

#### Traffic Model Adequacy - Objection

2.1.3 Ms Green suggests that there is insufficient information from the traffic modelling in order to provide advice to businesses in the study area.

#### Traffic Model Adequacy - Response

2.1.4 The traffic model is a large traffic model, developed with the SATURN software, a widely recognised and extensively used traffic model software package. The model was previously developed for Kirklees Council as the Kirklees Traffic Model, and was enhanced and enlarged for this Works Order.

2.1.5 The outputs are not limited to simple traffic flow outputs, showing the change between 'normal' operation and the operation of the highway network during construction. SATURN provides a large number of outputs including traffic flows, and for this study critical metrics have also been output for examination, which include:

- Vehicle demand versus link capacity ratios (V/C ratios), which provide a measure of whether a link is under or overcapacity;
- Journey times with and without the temporary road closures.

2.1.6 Bespoke impacts for individual highway users can be output for further examination.

2.1.7 However, in summary, the traffic model has shown that the highway network can still support the volume of traffic with Calder Road temporarily closed at the railway bridge and with traffic diversions in place. Both the railway bridge to the south of the Newlay Concrete site and the river bridge to its north will be closed at different times. Calder Road's temporary closure is addressed in the Construction Management Proof of Evidence and Rebuttal by Mr Mike Pedley. It is proposed that the business will be able to maintain operations.

- 2.1.8 When the railway bridge is closed, Newlay Concrete traffic's route to and from the south along Calder Road and its continuance along Ravensthorpe Road will be temporarily replaced by a northerly diversion route making use of the A644 Huddersfield Road and B6177 Thornhill Road with further routes available to reconnect into routes to and from the south. An indication of the diversion routes is shown in Appendix A which shows the inbound and outbound turns to and from the north and south sides of the Newlay Concrete access during normal operation, followed by a drawing of the situation when traffic to and from the south side is temporarily blocked due to the temporary closure of Calder Road at the railway bridge, but is served by the diversion route shown. When the river bridge is closed, a southerly diversion route initially using Calder Road and Ravensthorpe Road will be used.
- 2.1.9 The traffic model is robust and adequate. It was validated at 2019 levels and an Automatic Traffic Count (ATC) was carried out on Calder Road on the railway bridge in late November and into early December 2019. It is generally understood that traffic counts from a 6 year period prior to any examination are acceptable. Also, the 2019 level is the most recent full year of traffic data that can be regarded as representative given the impact of COVID-19 on traffic flows since the March 2020.
- 2.1.10 The model was rebased to 2019 and forecasts during the construction works were taken to 2024 in agreement with Kirklees Council. Traffic flows are therefore representative a recent present level and a stable 2024 forecast year.
- 2.1.11 At 2024 the model was run with and without the construction works. In the 'with construction work' scenarios the model included the temporary road closures, diversion routes, construction routes and temporary traffic management measures to mitigate adverse impacts.
- 2.1.12 The traffic model metrics therefore consider the residual impacts of any temporary closures based on up-to-date traffic data and a realistic impact of construction on the highway network. The model contains sufficient data to advise businesses of the impacts of temporary road closures in the study area.

### **3. WITNESS DECLARATION**

#### **3.1 Statement of declaration**

##### **3.1.1 Each named witness hereby declares as follows:**

- (i) This rebuttal includes all facts which I regard as being relevant to

the opinions that I have expressed and that the Inquiry's attention has been drawn to any matter which would affect the validity of that opinion.

- (ii) I believe the facts that I have stated in this rebuttal are true and that the opinions expressed are correct.
- (iii) I understand my duty to the Inquiry to help it with matters within my expertise and I have complied with that duty.

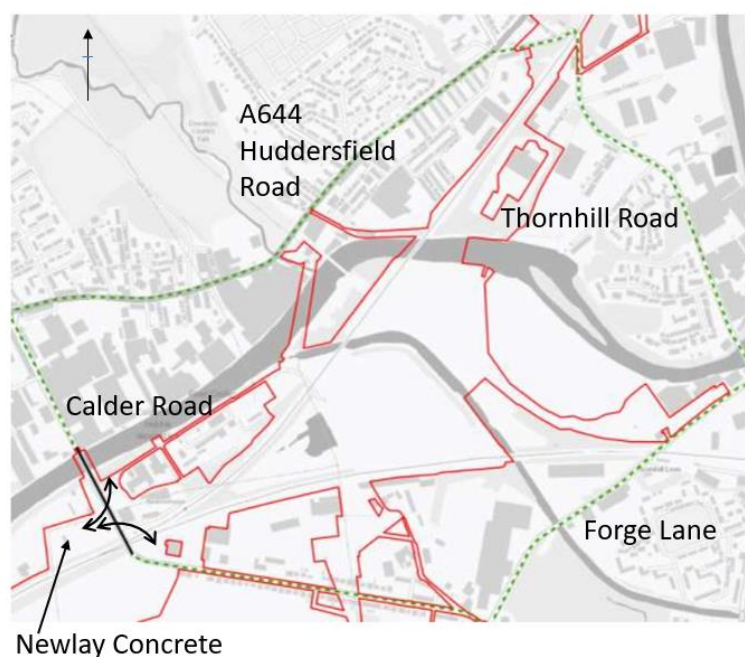
19 October 2021



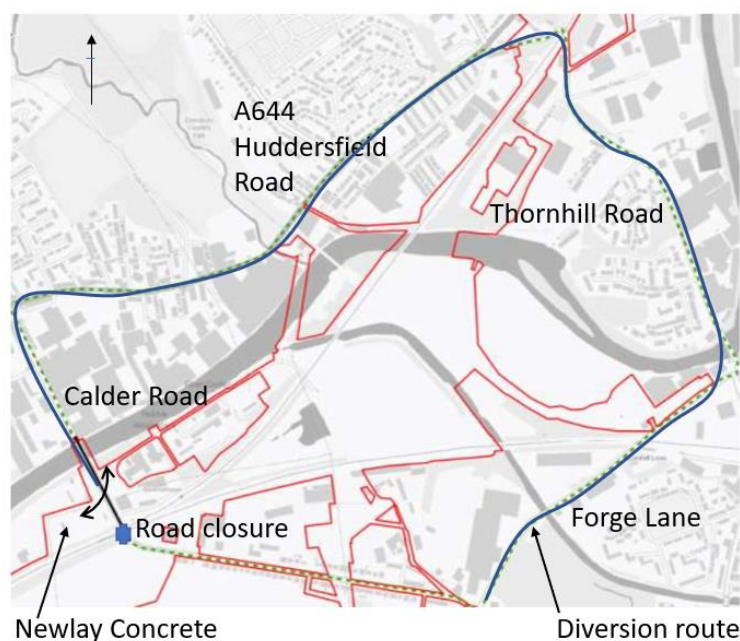
## APPENDIX A

### Calder Road diversion route

Normal two-way traffic movements into and out of Newlay Concrete's site



Two-way traffic movements into and out of Newlay Concrete's site to and from north only, showing diversion route



Note: Newlay Concrete traffic may use a diversion route that includes a continuation of Thornhill Road further to the east instead of using Forge Lane.