



## **OFFICER REPORT TO LOCAL COMMITTEE (TANDRIDGE)**

### **D431/1015 GRANTS LANE BRIDGE**

**5 March 2010**

#### **KEY ISSUE**

A strength assessment of Grants Lane Bridge has found that it only has capacity to carry vehicles of 3 tonnes gross vehicle weight. The committee is asked to approve the imposition of a permanent 3 tonne weight restriction and 6'6" width restriction.

#### **SUMMARY**

The bridge is below the capacity required to carry all vehicles allowed under the Construction and Use Regulations. The combined weight and width restriction will ensure that the bridge will only carry vehicles within its capacity, which will ensure the safety of road and rail users.

#### **OFFICER RECOMMENDATIONS**

**The Local Committee (Tandridge) is asked to agree that:**

- (i) a permanent weight restriction of 3 tonnes combined with a 6'6" width restriction be imposed on Grants Lane Bridge and that the necessary traffic regulation orders be advertised and if no objection be maintained the order be made.
- (ii) if objections are received that they be reported back to committee.

## **1 INTRODUCTION AND BACKGROUND**

- 1.1 Grants Lane Bridge is situated to the east of Hurst Green and carries Grants Lane over the railway next to Hillview Farm.
- 1.2 'Directive 1985/3/EEC of the European Union and of the Council of 19 December 1984 on the weights, dimensions and certain other technical characteristics of certain road vehicles' set the maximum gross weight of vehicles at 40 tonnes. An Amending Directive published in 1986 set the maximum drive axle weight at 11.5 tonnes. These vehicles have been allowed to use British roads since 1 January 1999.
- 1.3 Maximum allowable weights before the publication of the Directive were 38 tonnes and 10 tonnes respectively. In order to ensure that County bridges were capable of carrying the increased loads a programme of strength assessments was started in 1984. Assessments have been carried out to the national standard, BD21 'The Assessment of Highway Bridges and Structures', currently published by the Highways Agency.
- 1.4 Bridges owned by other authorities are also subject to strength assessment where they carry a public highway. Grants Lane Bridge is owned by Network Rail and has been assessed by their consultant as capable of carrying a maximum gross vehicle weight of 3 tonnes.

## **2 ANALYSIS**

- 2.1 A bridge which fails a strength assessment must be replaced or managed to ensure the safety of highway users.
- 2.2 The assessment standard BD 21 requires bridges which cannot carry 40 tonnes assessment live loading to be restricted in terms of gross vehicle weight at the appropriate level. In this case a 3 tonne restriction would be required.
- 2.3 The national standard BD 79 'The Management of Sub-standard Highway Structures' published by the Highways Agency allows a structure which has failed strength assessment to remain open unrestricted if certain criteria are met.

## **3 OPTIONS**

- 3.1 Monitoring - In this case the standard BD 79 would require that
  - a) the bridge is of a type that would give early warning of failure, and
  - b) that the structure is subject to an increased inspection frequency of three to six months in the areas of theoretical failure.
- 3.2 Although point a) would apply it would not be possible to carry out inspections at increased frequency because the bridge is over a railway. Inspections of railway bridges are extremely expensive and difficult to

arrange. There would be no guarantee that inspections could be carried out at the required frequency and the budget could not sustain this expense for an unspecified period.

- 3.3 Traffic Management – It is possible to reduce the load on a bridge by reducing the number of traffic lanes. By reducing from two to one lane the theoretical maximum load on the bridge would be reduced by nearly a half. The capacity of Grants Lane bridge would not be increased to 40 tonnes by using this method. Additionally, traffic signals would be required which would be very difficult to accommodate on this narrow rural road.
- 3.4 Weight Restriction – A weight restriction would ensure that the bridge only carries vehicles within its capacity. Red Lane offers an alternative, parallel, route a short distance to the west which can be used by excluded vehicles. A 3 tonne weight restriction completely excludes heavy goods vehicles. Weight restrictions can be difficult to enforce and the application of a 6'6" width restriction would ensure that the bridge can only be used by permitted vehicles.
- 3.5 Strengthening – It may be possible to strengthen the bridge. However, there is no budget available within the next two years and a scheme of this complexity over a railway could take a several years to reach construction.
- 3.6 Reconstruction – The bridge could be reconstructed. However, there is no budget available within the next two years and a scheme of this complexity over a railway could take several years to reach construction.

#### **4 CONSULTATIONS**

- 4.1 Emergency services will be consulted during the preparation of traffic orders.

#### **5 FINANCIAL AND VALUE FOR MONEY IMPLICATIONS**

- 5.1 The scheme will be financed by the Structures Revenue Maintenance budget.

#### **6 EQUALITIES AND DIVERSITY IMPLICATIONS**

- 6.1 There are no specific implications.

#### **7 CRIME AND DISORDER IMPLICATIONS**

- 7.1 Any crime and disorder implications would be determined and addressed during consultation with emergency services.

## 8 CONCLUSION AND RECOMMENDATIONS

- 8.1 It is recommended that a combined 3 tonne weight restriction and 6'6" width restriction is placed on Grants Lane Bridge.

## 9 REASONS FOR RECOMMENDATIONS

- 9.1 In order for Grants Lane bridge to carry 40 tonne vehicles it will be necessary for it to be strengthened or replaced. No funds are available at the present time for this work. A temporary traffic order will only last for 18 months. As a scheme of this nature is likely to take several years to construction a permanent order is requested which will protect the structure until work can be carried out.
- 9.2 The imposition of a 3 tonne weight restriction combined with a 6'6" width restriction on Grants Lane Bridge would be the simplest and cheapest option to protect the bridge and highway users and would not create undue inconvenience for immediate residents. Red Lane offers an alternative, parallel, route a short distance to the west which can be used by excluded vehicles.

## 10 WHAT HAPPENS NEXT

- 10.1 Traffic orders will be advertised with the weight and width restriction expected to be in force in the summer of 2010.

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**BACKGROUND PAPERS:**