

<b>Meeting:</b>	Transport Executive Decision Session
<b>Meeting date:</b>	12/March/2023
<b>Report of:</b>	James Gilchrist, Director of Environment, Transport and Planning
<b>Portfolio of:</b>	Executive Member of Economy and Transport

## **Decision Report: Bishopthorpe Bridge**

### **Subject of Report**

1. An assessment of Bishopthorpe Bridge (“the Bridge”) by ‘Structural and Civil Consultants’ found the bridge structure to be incapable of carrying the normal 40 tonnes, the assessment recommended that an 18 tonnes weight restriction should be imposed. A number of other issues were identified.
2. To safeguard the structure and the public, 18-month Temporary Traffic Regulation Order restricting vehicles to 18 tonnes crossing over/using the Bridge came into force on 6th October 2023.
3. This report considers the long-term options for the Bridge in response to the concerns received from haulage companies and the residents in the area with regards to the recent introduction of Temporary Traffic Regulation Order on the Bridge. The location of the Bridge is shown] on the plan attached at Appendix A. The Bridge is situated in Bishopthorpe – it carries a section of Appleton Road over a cycle path. Appleton Road is an adopted highway maintainable by the Council as local highway authority at public expense.

### **Benefits and Challenges**

4. By definition bridges are deployed to overcome obstacles when this cannot be achieved without a structure. Structures are expensive and normally avoided. The Bridge originally carried Appleton Road over a railway – that railway is now a cycle path owned by Sustrans Limited. As a result work on bridges can inevitably cause disruption to the local community and road users.

5. The immediate steps to safeguard the Bridge have already had community impact most obviously with heavy goods vehicles diverting through Companthorpe.

## **Policy Basis for Decision**

6. The proposals within this report are consistent with the 10-Year Plan for the city, known as “York 2032”, which recognises transport as a key priority for the city, setting the goal that York’s transport networks will be inclusive and sustainable, connecting neighbourhoods and communities.
7. The new Council Plan 2023-2027 has four Core Commitments, which fit with the initiatives aimed at supporting and growing bus patronage:

## **Equalities and Human Rights**

8. The proposal seeks to ensure that the Council fulfils its statutory duties in its capacity as the Highway Authority and with the aim of improving the lifespan of the Bridge for the benefit of all the community. The report highlights the mitigations such as the ability to improve bridge utilisation for all modes of transport including the active travel route under the bridge.

## **Affordability - Tackling the cost-of-living crisis.**

9. Cycle route/path under the Bridge will have to be closed if bridge strengthening works and may for a short period of time impact on active travel routes (the cheapest form of travel). Therefore, the proposal in this report does have an impact on affordability for residents.

## **Climate - Environment and the climate emergency**

10. This report relates to the provision of transport infrastructure. The design and delivery of this infrastructure should, wherever possible, compliment the ambitions of the Climate Change Strategy. This project has the potential to reduce vehicle miles (through the avoidance of increased journey length for large vehicles) and increase active travel, if provision is made.

11. Carbon emissions should be minimised through design, delivery and operation; considering embodied carbon as well as emissions associated with construction.
12. As part of the design assessment, any options appraisal should include a Carbon Impact Assessment; and traffic modelling work should consider the wider carbon and air quality impact on the local transport system from any temporary and permanent road closures and route diversions.
13. During procurement, the evaluation process will include the suppliers' approach to carbon mitigation during delivery of the works.
14. The long-term impact of climate change should be considered, with resilience to future expected temperature increases and wetter weather factored into the design.

### **Health - Health and wellbeing**

15. The proposals within this report will maintain health and wellbeing by ensuring a suitable diversion during the works. This diversion and the substantive repairs keeps communities connected.
16. In October 2023 the Executive approved a vision, objectives and Policy Focus area for a Local Transport Strategy. This project will support the following proposed objectives:
  - a) "Support delivery of the Climate Change Strategy" – Maintenance of an existing asset has a far lower carbon cost than allowing it to deteriorate and then replacing it.
  - b) "Enhance the reliability of the transport system" by reducing the need for emergency repairs and allowing for the reduction in heavy traffic from a route popular with cyclists.
  - c) "Protect the city's heritage and enhance public spaces." remedial works will safeguard the structure from dilapidation.
  - d) "Future-proof our city" by ensuring that this vital transport link remain serviceable for future generations.

### **Financial Strategy Implications**

17. Members have agreed a bridge strengthening and maintenance budget totalling £3.2m over the period 2024/25 to 2028/29. In 2024/25 the budget totals £775k.

18. The estimated cost of strengthening works are £300k and should Members agree to strengthening Bishopthorpe Bridge this will need to be funded from this allocation. The overall budget funds bridge assessments, inspections, minor works and refurbishments so a single scheme of £300k is a large commitment against this budget. However there are opportunities to bring funding forward from future years or from transferring funds from other programmes such as Highway schemes.

## **Recommendation and Reasons**

19. The Executive Member is recommended to:

- i. Note that officers will continue to undertake work to establish the ownership of the bridge and responsibilities for any maintenance, improvements or strengthening works.
- ii. Approve that officers develop a bridge strengthening scheme as per option 5 of the report.
- iii. Delegate authority to the Director of Environment, Transport & Planning to undertake the procurement of a suitable contractor to carry out the bridge strengthening works in accordance with the Contract Procedure Rules.
- iv. Once the ownership of the bridge has been ascertained as a Council responsibility authority is delegated to the Director of Environment, Transport & Planning in consultation with Head of Procurement and Director of Governance to take all necessary steps to award and enter into the resulting contract.

*Reason: the temporary weight restriction has caused traffic to displace to other routes and roads which if the bridge is not strengthened mitigation would be required to reduce the impact of the additional traffic in residential areas.*

## **Background**

20. The Bridge is an 11.52m single span pre-cast, pre-stressed concrete beam bridge supported on brick abutments. The structure carries the unclassified adopted highway Appleton Road over a Sustrans Cycle track at OS Grid Reference SE 59000 47349.

21. As part of our regular inspection regime, an assessment of the Bridge by 'Structural and Civil Consultants' found a number of issues.

## **Weight Restriction**

22. The structure is currently incapable of carrying 40 tonnes which is normal when 2 large goods vehicles pass each other. The report recommended that an 18 tonnes weight restriction should be imposed. The assessment report raised concerns that failure could be brittle and give little warning.

## **Service Bay Soffit (Floor of the service underneath the footway).**

23. Repairs to the service bay soffit – the service bay soffit is in poor condition with low cover to the reinforcement. The most recent principal inspection has recommended repair and there is currently a risk that spalled concrete could fall from the structure. The repair works would be to break/cut-out defective concrete to 25mm behind the existing reinforcement. Reinforcement to be cleaned/abraded and protected in accordance with BS EN 1504 then class R4 repair mortar used to infill, consideration could also be given to installing sacrificial anodes as part of the repair. The concrete could also be coated with to extend the life in accordance with BS EN 1504. This work would be off mobile access towers or possibly full scaffolding out of the structure.

## **Bridge bearings**

24. Bridge bearings are the point at which the load from a bridge deck to its support are transferred. The existing bearings are in poor condition and are expanding due to corrosion. Uplift effects were attributed to this defect in the latest principal inspection report. Although not critical to replace in the short-term they are still considered in poor condition and as such would have to be closely monitored. Replacing the bearings would be a costly operation with constructability issues envisaged due to such a small existing gap between the bearing shelf and soffit.

## **Parapets**

25. The brickwork needs repairs to the parapets and upper wing walls.

26. In response to the report and to safeguard the structure and the public, an 18-month Temporary Traffic Regulation Order restricting vehicles to 18 tonnes came into force on 6th October 2023. Whilst options were explored as detailed within the options section of the report.

27. There have already been concerns raised of increased traffic flows in Copmanthorpe and requests for a Vehicle Activated Signs. Furthermore, this weight restriction will add an additional 5.6mile to travelling time to get from one side of the bridge to the other

if the 18 tonne weight restriction is retained. It may also have an impact on farm machinery that would weigh more 18 tonne.

## **Consultation Analysis**

28. An initial meeting with Bishopthorpe and Copmanthorpe Ward Councillors has taken place. Further consultation with ward members listed below will be carried out as the chosen options proceeds.

## **Options Analysis and Evidential Basis**

29. Four options were considered as follows:

### **Option 1 Do Nothing**

30. Once the 18 month Temporary Traffic Regulation Order expires in April 2025 allow the structure to revert back to the way it was.

31. This option cannot be supported by officers without work to the Bridge to strengthen the Bridge as the technical assessment is that the current bridge condition is such that the 18 tonne weight limit is the maximum that can be permitted. It also does not address the other issues identified with the Bridge.

### **Option 2 Temporary Traffic Lights rather than Weight Restriction**

32. This option is only a temporary measure to remove the Temporary Traffic Regulation Order which places an 18 tonne weight restriction and instead place a set of temporary traffic lights restricting traffic to a single lane over the bridge. This reduction to a single lane of traffic is likely to mean a weight restriction is not needed as two large goods vehicles cannot pass on the bridge.

33. The cost of this is likely to be £150,000 to £200,000 per annum, but could be done relatively quickly. This will only be available upon completion of the assessments

34. It is not a long-term solution but would mitigate some of the impacts on Copmanthorpe of diverted traffic especially heavy goods vehicles. However, there would be negative impacts within the area of the bridge with queuing traffic and as a result traffic may still divert through Copmanthorpe.

35. Option 2 would need to be considered in addition to one of the subsequent options.

### **Option 3 Permanent Weight Restriction**

36. A permanent Traffic Regulation Order could be put in place for the 18 tonne weight limit restriction in place.

37. Work would still be required to the bridge in terms of the parapets, bridge bearings and service bay soffit. This would cost circa (£10k) The viability of this proposal is still subject to further assessment due at the end of March.

38. The concern with this solution is that it does not mitigate the impacts that have been caused by the Temporary Traffic Regulation Order. If this was a permanent arrangement there would need to be measures taken to ensure the weight restriction was complied with as this cannot be guaranteed.

### **Option 4 Permanent Single Lane Working**

39. Is to permanently place traffic lights on the Bridge to reduce it down to a single lane of traffic. A single lane of traffic obviously weighs less than two lanes and may remove the need for a weight restriction on the Bridge. This would cost circa £160,000.

40. This would add queuing problems in the vicinity of the bridge and may mean some people still divert through Companthorpe as they are now.

41. Work would still be required to the bridge in terms of the parapets, bridge bearings and service bay soffit.

### **Option 5 Bridge Strengthening**

42. Installation of a corrugated steel arch to be constructed below the existing bridge deck with the gap between the new steel structure and the existing deck to be filled with mass foam concrete and topped with non-shrink grout. The steel structure would become the primary deck element and would be designed to accept the loading from the existing deck and 40 tonnes. This would bring the structure back up to current highway loading standards and the Temporary Traffic Regulation Order could then be removed.

43. This would remove the need the need for work on the bridge bearings and the Service Bay Soffit. Work to the Parapets and Wing Walls would be completed at the same time.
44. This would cost circa £300,000. The vast majority of the work would be completed without impact on the existing traffic over the bridge.
45. During the works to strengthen the bridge the cycle path underneath the bridge will be closed to all users. The signed diversion proposed will be via Copmanthorpe Lane, Appleton Road, Maple Avenue, Beech Avenue and Wolsey Drive; an additional distance of a third of a mile see Annex C

## **Organisational Impact and Implications**

### **Financial**

46. As stated in the Financial Strategy Implications the cost of any works will need to be funded from the Bridges Capital budget that totals £775k in 2024/25 and £3.2m over the next five years. Any spend on Bishopthorpe bridge will reduce funding available for other bridge assets.

### **Human Resources (HR)**

47. There are no HR implications.

### **Legal**

#### **Highways & Planning Law Implications**

48. The Highways Act 1980 (“the 1980 Act”) places a statutory duty on all Highway Authorities (HA) to maintain the public highway ensuring that it is safe to use and fit for purpose. Section 41 of the 1980 Act imposes a duty to maintain highways that are maintainable at public expense. The Section 41 duty also applies to the surface of highways which pass over a bridge.
49. The Council, as the HA and Local Traffic Authority must consider the criteria within Section 122 of the Road Traffic Regulation Act 1984. The Council has a statutory duty to secure the expeditious, convenient and safe movement of vehicular and other traffic (having regard to the effect on amenities of any locality affected).



50. If the highway is unsafe due to the disrepair of a bridge, then section 56 of the 1980 Act provides that a person claiming that a highway ‘...bridge is out of repair ...may serve a notice on the highway authority or other person alleged to be liable to maintain the way or bridge...’

### **Maintenance of privately owned bridges**

51. The Transport Act 1968 (“the 1968 Act) passed the duty to maintain highways over railway bridges to highway authorities (s116(1)). The duty to maintain the structure of the bridges themselves remained with the railway companies.

52. Bridges carrying highway over railways remain the ‘property’ of the ‘owner’ of the land on which the bridge stands and are, therefore, the maintenance responsibility of that owner (Section 116(6) of the 1968 Act).

53. There is a duty upon the ‘owner’ to maintain the bridge in such a condition that it is not a source of danger to, does not interfere with, or require any restriction to be placed on, the traffic using the railway crossed by the bridge (Section 118(2) of the 1968 Act).

54. Generally, where the bridge is privately owned, the maintenance responsibility is separated into (a) maintenance of the structure by the private owner, and (b) maintenance of the surface of the highway which passes over the bridge by the HA.

55. Bridge owners or the HA may apply for an Order to the Minister to provide for the reconstruction, improvement or maintenance of a privately maintainable bridge, or of the highway carried by the bridge, or of the approaches to the bridge (Section 93 of the 1980 Act).

56. Bridge owners and the HA may enter into agreements in relation to a bridge to deal with matters including (a) contributions towards the costs of improvement or maintenance (b) for the transfer to the HA the responsibility for the improvement and maintenance of the highway carried by the bridge (c) for the transfer to the HA of the property in the bridge, and of all or any rights and obligations attaching to the bridge, or to such highway or approaches (Section 94 of the 1980 Act).

57. If it is established that Sustrans Limited is the freehold owner of the Bridge, and it is established that there are no alternative arrangements regarding maintenance of the bridge in place (by order or agreement), then Sustrans will be responsible for the structure of the Bridge and

the Council will be responsible for the surface of the highway passing over the Bridge. However, if the Council has allowed the weight loading of the highway running over the Bridge to cause the damage, then the responsibility will pass back to the Council.

### **Load bearing capacity**

58. There is a duty on the bridge owner to secure that the bridge has the “required load-bearing capacity”, and to maintain, improve or strengthen the bridge to ensure it has the required load-bearing capacity. Where it is not reasonably practicable to secure that it has that capacity through maintenance, improvement or strengthening the bridge owner must reconstruct the bridge or replace it with a new bridge (Section 117 of the 1968 Act).
59. A bridge is deemed to have the required load-bearing capacity if, it complies with load-bearing standards prescribed by an order made by the appropriate national authority or, if there is no order, where it is “capable of bearing the weight of the traffic which ordinarily uses, or may reasonably be expected to use, the highway carried by it” (Section 117(3) of the 1968 Act).

### **Traffic Regulation Orders**

60. The Council has powers under the Road Traffic Regulation Act 1984 to make Traffic Regulation Orders and Temporary Traffic Regulation Orders. Any such order will need to be effected in accordance with the relevant statutory procedures including the requirement for formal consultation and advertisement in the local press. Where objections are received, there is a duty on the Council to ensure that these objections are duly considered.

### **Property/Landlord and Tenant Law Implications**

61. At this point it is difficult to say with absolute certainty:
- (i) who owns the Bridge;
  - (ii) who is responsible for maintaining the structure of the Bridge
- given that the Bridge carries an adopted highway over what used to be a railway line but is now a cycle route owned by Sustrans Limited.

62. It is considered the Council needs to ascertain, if possible:
- (a) when the Bridge was constructed;
  - (b) who the Bridge was constructed by;

- (c) when the former railway line closed;
- (d) when the cycle route was created by Sustrans and opened for public use (although the cycle route is seemingly not recorded as public right of way according to YorkMap, it is likely to be highway due to use by the public for more than 20 years).

63. Based upon information obtained from HM Land Registry it appears that the Bridge is owned by Sustrans Limited and so may be the maintenance responsibility of Sustrans. However this would depend upon other circumstances such as who, if anyone has carried out any maintenance works to the structure of the Bridge since the provisions of the 1968 Act came into operation.

## **Procurement**

64. Any proposed works or services will need to be commissioned via a compliant procurement route under the Council's Contract Procedure Rules and where applicable, the Public Contract Regulations 2015. All tenders will need to be conducted in an open, fair, and transparent way to capture the key principles of procurement. Further advice regarding the procurement routes, strategies and markets must be sought from the Commercial Procurement team.

## **Health and Wellbeing**

65. This proposal will have no negative impacts on health and wellbeing and health inequalities.

## **Environment and Climate action**

66. Carbon emissions should be minimised through delivery and operation:

- The options appraisal should include a Carbon Impact Assessment; and traffic modelling work should consider the wider carbon and air quality impact on the local transport system from any temporary and permanent road closures and route diversions.
- During procurement, the evaluation process will include the suppliers' approach to carbon mitigation during delivery of the works.

## **Affordability**

67. There are no direct affordability implications of the report but safeguarding active travel as the cheapest form of travel is important, whilst bridge strengthening may have a short term impact on active travel.

## **Equalities and Human Rights**

68. In preparing and determining proposals set out in this report the Council is required to have regard to (i) The Human Rights Act 1998 and (ii) the Equality Act 2010:

- (i) Traffic regulation measures have the potential to interfere with human rights, depending on the measures in question. However, it is open to the Council to consider any such interference as justified, being proportionate and necessary.
- (ii) The Council must give due regard to the Public Sector Equality Duty under Section 149 of the Equality Act 2010, including the Equalities Impact Assessment (“EqIA”) that has been completed. A fair and proportionate balance has to be found between the needs of people with protected characteristics and the interests of the community as a whole.

69. The Council has taken account of the Public Sector Equality Duty (to have due regard to the need to eliminate discrimination, harassment, victimisation and any other prohibited conduct; advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and foster good relations between persons who share a relevant protected characteristic and persons who do not share it in the exercise of a public authority’s functions).

70. An Equalities Impact Assessment (‘EIA’) has been attached to this report as Annex A.

## **Data Protection and Privacy,**

71. As there is no new personal data, special categories of personal data or criminal offence data being processed for this report, there is no requirement to complete a DPIA. This is evidenced by completion of DPIA screening questions - reference AD-03647 Annex B.

## **Communications**

72. While this report has no immediate communications actions, as and when any works are planned on this bridge communications support will be required.

## **Economy**

73. There are no significant economy implications relating to the report recommendations.

## **Risks and Mitigations**

### **Risk Management**

74. In compliance with the Council's risk management strategy, the main risks that have been identified in this report are:

- a. Strategic Risks, arising from judgements in relation to medium term goals for the service.
- b. Physical Risks, arising from potential underinvestment in assets.
- c. Financial Risks, from pressures on budget.

75. Should these essential strengthening works not be carried out in a reasonable timescale, a permanent weight restrictions or other mitigations will need to be put in place.

## **Wards Impacted**

76. The Wards where the maintenance works are to be carried out is the Bishopthorpe Ward but diverting traffic could impact on other wards most notably Copmanthorpe Ward.

## **Contact details**

For further information please contact the authors of this Decision Report.

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## Background papers

**All** relevant background papers must be listed.

A 'background paper' is any document which, in the Chief Officer's opinion, discloses any facts on which the report is based, and which has been relied upon to a material extent in preparing the report. See page 5:3:2 of The Constitution.

## Annexes/Background Papers

- Annex A: Equalities Impact Assessment (EIA)
- Annex B: Data Protection Impact Assessment (DPIA)
- Annex C: Cycle Diversion