A898 100 Erskine Bridge

Temporary Closure of Bridge Footpaths / Cycletracks Consultations
09/SW/1203/001 November 2009
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<th>Checked by</th>
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Organisation
Transport Scotland
Flint & Neill
Amey File Copy

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-

Copies
1 (Electronic pdf)
1 (Electronic pdf)
1 (Electronic pdf and word)

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EXECUTIVE SUMMARY

The recent tragic deaths of two teenage girls on 4th October 2009 have once again brought suicides at Erskine Bridge back into focus. On 16th October there was a further male suicide.

In particular, Clydebank Community Council has strongly recommended that the bridge footpaths and cyclepaths be closed until enhanced suicide prevention measures are installed.

As a result Transport Scotland instructed Amey to carry out consultations with relevant parties to ascertain their views on temporary closing the Erskine Bridge footpaths and cycletracks.

This consultation process identified:

- Despite the pedestrian/cyclist survey being carried out during poor Oct/Nov weather, it demonstrated a demand for use of the footpaths and cycletracks on the bridge. This demand is likely to be greater during summer months.
- All 6 parties/organisations contacted (councils, police, sustainable transport and cycling groups) are strongly opposed to a temporary closure of the footpaths and cycletracks on the bridge.
- One of the main points raised by the cycling groups was that a diversion of approximately 22km involving riding on some very busy roads would be completely unacceptable. The same diversion would apply to pedestrians.
- Strathclyde Police would not support, nor be able to man the temporary closure of the footpaths and cycletracks.
- Closure of the footways/cycletracks is likely to result in non-compliance of the restrictions and increased risk exposure to regular non-motorised users and other road traffic (i.e. pedestrians/cyclists will continue to use the bridge). There is no legal basis for preventing individuals from using the carriageway, which is not currently an offence, since it is an A class road.
- To achieve the closure, a road traffic order would require to be initiated. However, it is unlikely that the closure of these facilities could be achieved legally without the provision of suitable alternative arrangements e.g. adjacent pedestrian/cycle footbridge, ferry or free bus service.

Taking into account these consultation findings, it is recommended that there should not be a temporary closure of the bridge footpaths and cycletracks.

If structurally viable and aesthetically acceptable, the time required to install enhanced parapet protection on the bridge will be considerable. The following activities are necessary: detailed prototype design; tender brief for prototype fabrication; fabrication/testing of prototype; review and design modifications as necessary; third party consultations; wind tunnel testing; subsequent structural assessment; tender documents; tender period; tender assessment and award of contract; mobilisation, procurement and fabrication; site installation. A site works start date of June 2011 is currently estimated with an installation period of a further 10 months.
1.0 INTRODUCTION

The recent tragic deaths of two teenage girls on 4th October 2009 have once again brought suicides at Erskine Bridge back into focus. On 16th October there was a further male suicide.

As a result of these incidents, Transport Scotland instructed Amey and specialist bridge consultant Flint & Neill to initially carry out a prototype trial of the most favourable of several parapet extension system options that were investigated in late 2008/early 2009. Details of the prototype system are likely to take the form of curved parapet extension posts and tension wires. See Figure 1.2. Depending on the success of the trials, the potentially adverse aerodynamic effects on the bridge and the general bridge aesthetics, a contract may subsequently be tendered to install these parapet extension works on the bridge.

However, the time required to install enhanced parapet protection will be considerable. The following activities will be required: detailed design of prototype; tender brief for prototype fabrication; fabrication and testing of prototype; review and design modifications as necessary; third party consultations; wind tunnel testing; subsequent structural assessment; preparation of tender documents; tender period; tender assessment and award of contract; mobilisation, procurement and fabrication; site installation. A site works start date of June 2011 is currently estimated with an installation period of a further 10 months. Refer to Section 6 and Appendix B.
Due to these suicides several local groups have become involved and Clydebank Community Council has strongly recommended that the bridge footpaths and cyclepaths be closed until enhanced suicide prevention measures are installed.

Consequently, Transport Scotland has commissioned Amey to carry out consultations with relevant parties to ascertain their views on a temporary closure of the Erskine Bridge footpaths and cycletracks.

In particular, Amey were requested to:

(i) carry out pedestrian/cycle counts on both sides during weekday and week-end (refer Section 2);

(ii) correspond/discuss with the relevant contacts within the local authorities on the north and south – West Dunbartonshire and Renfrewshire (refer Section 3);

(iii) correspond/discuss with the Police how such a closure would be monitored and policed i.e. what resources would be required (refer Section 4);

(iv) the legal implications – what notices would be required (refer Section 5) and
(v) expand the initial programme for the prototype trial through to installation of a parapet extension system (refer Section 6 and Appendix B).

Figure 1.3: Erskine Bridge Footpath and Cycletrack

This report addresses the above issues in turn and considers the feasibility and practicalities of temporarily closing the footpaths and cycletracks until possible enhanced suicide prevention is implemented.
2.0 PEDESTRIAN/CYCLIST SURVEY

Pedestrian/Cyclist count surveys were carried out on Tuesday 27th Oct 2009, Saturday 31st Oct 2009 and Tuesday 3rd November 2009 by Amey’s Transportation/GIS Section. The surveys were carried out between 0600 hrs and 2045 hrs on each of the 3 days. A summary of the results are shown in Table 2.1 below. More detailed information is included in Appendix A.

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<tr>
<th>Day and date</th>
<th>West side Pedestrians</th>
<th>West side Cyclists</th>
<th>East side Pedestrians</th>
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<td>46</td>
<td>East side footpath/cycletrack closed to Pedestrians and Cyclists due to Gantry Contract Works</td>
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Table 2.1 : Pedestrian/Cyclist Survey

It should be noted that, even for this time of year, the weather was very poor for both the weekday Tuesday 27/10 and Tuesday 03/11 surveys. There was persistent rain and windy conditions for most of these days. The weather was fairly good for the Saturday 31/10 survey.

Although the east side footpath and cycletrack were closed for each of the 3 days due to Gantry Contract Works, it is considered unlikely that this would affect the survey numbers. At both ends of the bridge it is well signposted and relatively easy to cross over to the other footpath/cycletrack to cross the bridge.

The Table 2.1 numbers above demonstrate that there is a demand by both pedestrians and cyclists to use the crossing. Peak pedestrian and cyclist movements are likely to occur in the summer months. This is difficult to predict, but figures could possibly be 2 to 3 times those detailed above.
3.0 CONSULTATIONS WITH OTHER STAKEHOLDERS

Amey contacted the following parties/organisations regarding their views on a temporary closure of the bridge footpaths and cycletracks until enhanced protection is installed:

- West Dunbartonshire Council,
- Renfrewshire Council,
- Strathclyde Police,
- Sustrans,
- Cyclists Touring Club Scotland (CTC Scotland) and
- Go Bike! Strathclyde Cycle Campaign

Amey issued the following email request to these parties/organisations:

“As you will be aware there has been a considerable amount of press coverage on the recent Erskine Bridge suicides.

We (Amey) have been asked by Transport Scotland to further investigate enhanced suicide prevention methods leading initially to prototype parapet extension trials. Amey manage and maintain the South West Trunk Road Network for Transport Scotland and this includes the Erskine Bridge.

However, a member of the public has recently strongly suggested to Transport Scotland that the bridge should be closed to pedestrians and cyclists until enhanced protection is installed.

What would ……. view/response be to this proposal?

The same information is being requested from other affected parties, e.g. ……….

A quick response would be greatly appreciated.”

The following responses were obtained:

3.1 West Dunbartonshire Council’s response:

“I have consulted with officers and Members of WDC and would respond to your message as follows:

Firstly, we would be very opposed to the complete blocking-off of the bridge to pedestrians and cyclists. Without accurate data on actual (and likely future) use of the footways and cycle lanes we cannot reasonably speculate on the implications of even closing one side of the bridge to pedestrians and cyclists. It would certainly be contrary to Government policy on encouragement of active travel. Closure of one side could lead to routine cleaning and general maintenance difficulties and remove the facility for closing alternate sides of the bridge for wider structural maintenance. We are aware that one side of the bridge is already regularly closed to pedestrians and cyclists for maintenance work. If one side was permanently closed, that option would be lost.

Local Members have been approached by local people with a suggestion to place a security type netting “under” the bridge. However, the provision of a good quality, high fence, slanting inward toward the bridge might well be the most successful option, but
we are acutely aware of the major cost implications and the potential loss of amenity for users in terms of views and wider visual appeal of the bridge.

The most recent event was a real tragedy, but is typical of such activity on this and other bridges. For example there are suicide attempts on the Kingston bridge, and that has no access for pedestrians/cyclists.

As far as the media are concerned this has been a 'good' story for them. People generally jump to make a statement, and the media are encouraging this through their reporting. We were very disappointed, but perhaps not surprised, that they couldn't resist sensationalising a double suicide by those poor girls, thereby ending an embargo on reporting suicides from the bridge which had held firm for years. We believe that this change in approach represents a bigger problem than the structure of the bridge. Perhaps communication teams from neighbouring Councils and Amey should discuss this.

It is extremely hard to predict those who take such extreme actions, and near impossible to prevent unless you are there at the time, if that is their ultimate aim. Real effort should be made through social care to prevent local people getting to that stage. In that regard we have forwarded your message to ------ of Choose Life who will be able to give you a very well informed opinion.

We understand that pictures from the CCTV cameras are now relayed back to the Traffic Scotland control room, as are the emergency telephones (however, the signs for the telephones state that they contact bridge control – which doesn’t exist anymore). We also understand that Traffic Scotland have procedures in place if someone contacts them using the emergency telephone, stating that they are intending to commit suicide. Perhaps there is something in this process which could be improved.

In conclusion, we would urge Transport Scotland and Amey to resist the pressure to embark on expensive structural work as a knee jerk reaction to a media scare and which could prove to be futile. There are other actions which could arguably prove more successful in reducing the overall risk of future acts, although sadly it is unlikely that we will be able to completely prevent further tragedies of this kind.

I hope these comments are of use to you.”

3.2 Renfrewshire Council’s response:

“As a consequence of Renfrewshire Council’s past experience of working with Transport Scotland under previous trunk road management arrangements the Council is aware of the detailed attention which is given to the complex engineering and social issues raised and the need to involve all relevant agencies in reducing the distressing frequency of suicides at the Erskine bridge. Unless there is something faulty or substandard requiring an emergency closure we would consider closure of the bridge to pedestrians a disproportionate response which would disrupt a valuable and well used facility. We have written to Transport Scotland offering any support the Council can give as our Planning and Transport service possesses much local knowledge about the bridge and its environs, we work closely with the local Police on these matters and our ‘Choose Life’ team, in Social Work, have been very close to the incident.”
3.3 **Strathclyde Police’s response:**

“Any such closure would have significant impact on local communities either side of the Clyde with the next available restricted crossing point being via the Renfrew Ferry and thereafter the Clyde Tunnel. Structures of this nature across the world have similar risks and sadly have proven to be attractive to those choosing to end their own lives.

I am aware that work has begun to investigate physical measures to reduce the risk of persons jumping from the structure however these will take a considerable time to implement.

In general there is limited publicity given to incidents of this nature on the bridge to avoid further "copy cat" occurrences. Unfortunately since the publicity over the original incident a further death has been recorded and at least one other individual has been removed safely by the police.

Strathclyde Police would be unlikely to support any blanket ban on cyclists and pedestrians using the Erskine bridge crossing due to disruption to communities and the reality that this would probably not dissuade a determined individual from carrying out their planned course of action.”

3.3 **Sustrans’ response:**

“We would be strongly opposed to closing the bridge in the interim, but we would do all we could to assist you with parapet design. Can we help?”

Amey declined Sustrans offer – Amey and specialist bridge consultant Flint & Neill are currently carrying out prototype design.

3.4 **Cyclists Touring Club Scotland (CTC Scotland) response:**

“A diversion of about 22km involving riding on some very busy roads would be completely unacceptable. The overall risk caused by the additional TIME in travelling as well as the nature of the roads might be greater than the risk of further suicides!

In any case an additional hour on to the journey would be unacceptable and impracticable for most users.

3.5 **Go Bike! Strathclyde Cycle Campaign response:**

“At Go Bike we’d echo the views of CTC Scotland regarding the closure of the Erskine Bridge to pedestrians and cyclists. While we would have no objection to the height of the railings being raised to deal with the problem (and closure of one side of the bridge at a time in order to carry out the work), we would protest strongly at the total closure of the bridge to pedestrians and cyclists.

In any case it would be difficult to enforce a closure to pedestrians and cyclists whilst continuing to allow motor vehicles across. Anyone intent on suicide could surely just walk or climb around the closure by using the carriageway. I suspect that cyclists
would also use the carriageway, since one mile on the A898 carriageway across the bridge would be no worse than the one mile or so on the busy A8 between Inchinnan and Renfrew on what would be the diversion route.

3.6 Response Summary

As detailed, all the above parties/organisations are strongly opposed to a temporary closure of the footpaths and cycletracks on the bridge until enhanced protection is installed.

It should also be noted, that there have been incidents at Erskine when people committing suicide drive onto the bridge, stop their car, cross the barriers and jump. This would not be prevented by closing the footpaths and cycletracks and would probably become the method of choice.
4.0 MONITORING AND POLICING OF THE FOOTPATH/CYCLETRACK CLOSURES

Amey re-contacted Strathclyde Police regarding their views on monitoring/policing a closure of the footpaths/cycletracks on the bridge.

The following email request was made.

“….A further question has been raised:

‘How a temporary closure of the footpaths/cycletracks until enhanced prevention methods are implemented would (could) be monitored and policed by Strathclyde Police, i.e. what resources would be required;

A quick response would be much appreciated.”

4.1 Strathclyde Police’s response:

“As you will have gathered from our previous correspondence Strathclyde Police would not support such a proposal and therefore would not provide temporary cover. By providing such cover this would in effect be providing support for a scheme to which we have fundamental objections and insofar as I can see be unworkable. If it was proposed to close the footway and cycle track this would require to be done by physical measures....

How would you then prevent pedestrians /cyclists using the roadway which is not currently an offence as it is an A class road?”
5.0 THE LEGAL IMPLICATIONS – WHAT NOTICES WOULD BE REQUIRED?

The following response has been obtained from Amey’s AIP/Transportation Section:

“The Erskine Bridge is the only viable route for pedestrians and cyclists who wish to cross the upper Clyde estuary to the west of Glasgow. Our non-motorised user (NMU) surveys recently carried out will establish some of the demand in this area. (Refer Section 2) However it should be noted that the demand will be depressed by the seasonality of the survey as it was undertaken in November. The peak pedestrian and cycle movements are likely to occur during the summer months.

Closure of the footways/cycletracks where there is a demand and no desirable alternative is likely to result in non-compliance of the restrictions and increased exposure to risk to regular NMU and other road traffic (e.g. pedestrians/cyclists will continue to use the bridge). To achieve the closure a road traffic order would require to be initiated. However, it is unlikely that the closure of these facilities could be achieved legally without the provision of suitable alternative arrangements e.g. adjacent pedestrian/cycle footbridge, ferry or free bus service.

It is also likely that objections would be received from cycle groups, local users and other national bodies that are concerned with freedom of access, social inclusion/exclusion, community severance or disability discrimination.”
6.0 OVERALL PROGRAMME FOR PROTOTYPE TRIALS AND POSSIBLE INSTALLATION OF A PARAPET EXTENSION SYSTEM

Outline Programme details are provided in Appendix B. As shown, the time involved in getting site works implemented will be considerable. Currently there are many engineering and technical unknowns. In particular wind tunnel testing of the parapet extension proposals will be required. As illustrated in Figure 6.1, the Erskine Bridge has a slender and elegant profile. Wind tunnel testing of such structures is very variable and it is very unlikely that the effect of the parapet extension can be predicted with any confidence without full wind tunnel testing. Also subtle changes to the prototype extension system resulting from the trials may affect the dynamic effect of the barrier on the bridge. The architectural impact, aesthetics and visual intrusion would also need to be carefully considered.

The following programme activities will be required: detailed design of prototype; tender brief for prototype fabrication; fabrication and testing of prototype; review and design modifications as necessary; third party consultations; wind tunnel testing; subsequent structural assessment; preparation of tender documents; tender period: tender assessment and award of contract; mobilisation, procurement and fabrication; site installation.

A site works start date of June 2011 is currently estimated, with an installation period of a further 10 months.
7.0 CONCLUSIONS AND RECOMMENDATIONS

The consultation process identified:

1. Despite the pedestrian/cyclist survey being carried out during poor Oct/Nov weather, it demonstrated a demand for use of the footpaths and cycletracks on the bridge. This demand is likely to be greater during summer months.

2. All 6 parties/organisations contacted (councils, police, sustainable transport and cycling groups) are strongly opposed to a temporary closure of the footpaths and cycletracks.

3. One of the main points raised by the cycling groups was that a diversion of approximately 22km involving riding on some very busy roads would be completely unacceptable. The same diversion would apply to pedestrians.

4. Strathclyde Police would not support, nor be able to man the temporary closure of the footpaths and cycletracks.

5. Closure of the footways/cycletracks is likely to result in non-compliance of the restrictions and increased risk exposure to regular non-motorised users and other road traffic (i.e. pedestrians/cyclists will continue to use the bridge). There is currently no legal basis for preventing these individuals from using the carriageway, as it is not currently an offence, since it is an A class road.

6. To achieve the closure a road traffic order would require to be initiated. However, it is unlikely that the closure of these facilities could be achieved legally without the provision of suitable alternative arrangements e.g. adjacent pedestrian/cycle footbridge, ferry or free bus service.

It is therefore recommended that there should not be a temporary closure of the footpaths and cycletracks.

If structurally and aesthetically viable, the time required to get enhanced parapet protection installed will be considerable. The following activities are envisaged: detailed design of prototype; tender brief for prototype fabrication; fabrication and testing of prototype; review and design modifications as necessary; third party consultations; wind tunnel testing; subsequent structural assessment; preparation of tender documents; tender period; tender assessment and award of contract; mobilisation, procurement and fabrication; site installation. A site works start date of June 2011 is currently estimated with a further installation period of 10 months.
APPENDIX A

PEDESTRIAN/CYCLIST COUNT SURVEY
A898 ERSEINE BRIDGE - PEDESTRIAN/CYCLIST SURVEY (TUESDAY 27/10/09, SATURDAY 31/10/09 AND TUESDAY 03/11/09)

West Footway

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<th>Adult South-bound</th>
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<th>Unaccompanied South-bound</th>
<th>Mobility Difficulty</th>
<th>Visually Impaired North-bound</th>
<th>Visually Impaired South-bound</th>
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<th>Mobility Difficulty</th>
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East Footway (closed)

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Weather Conditions

**Tuesday 27/10/2009**
- Wind speed: 9C in morning rising to 13C by afternoon
- Temperature (forecast): 13 to 14 C
- Eastery winds about 20mph
- Frequent heavy showers with few breaks
- Mobility Difficulty: South-westerly winds of 10mph increasing to 20mph around 10am
- Visually Impaired: Dry
- Cyclist: 8 to 9 C

**Saturday 31/10/2009**
- Wind speed: South-westerly winds of 10mph increasing to 25mph
- Temperature (forecast): 13 to 14 C
- Eastery winds about 15mph
- Frequent heavy showers with few breaks
- Mobility Difficulty: South-westerly winds of 15mph decreasing to 5mph around 3pm
- Visually Impaired: Dry
- Cyclist: 8 to 9 C

**Tuesday 03/11/2009**
- Wind speed: South-westerly winds of 10mph increasing to 25mph
- Temperature (forecast): 13 to 14 C
- Eastery winds about 15mph
- Frequent heavy showers with few breaks
- Mobility Difficulty: South-westerly winds of 15mph decreasing to 5mph around 3pm
- Visually Impaired: Dry
- Cyclist: 8 to 9 C

Notes:
1. The surveys were carried out between 0600 hrs and 2045 hrs on each of the 3 days.
2. The above tables summarise the survey count information. Hour by hour data was recorded and can be made available if required.
APPENDIX B

OVERALL PROGRAMME FOR PROTOTYPE TRIALS AND INSTALLATION OF A PARAPET EXTENSION SYSTEM
# Development of a Parapet Extension System for Erskine Bridge

**Job No:** 1124/19

**A898 Erskine Bridge**

**File name:** 1124.19.EB_Parapet_Ext_Prog.v1

## Development of a parapet extension system for Erskine Bridge

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**Notes:**

1. Assumes acceptance of first iteration of parapet extension prototype without any further testing requirements.
2. Review of wind tunnel testing report and comparison with 1999 Stage 3 Assessment wind loading.
3. Six month consultation period with local authorities, interest groups, planning authorities etc, to be led by others.
4. Preparation of tender documents to commence following completion of consultation period.
5. Assumes maintenance painting of existing parapet, modification to the gantry access towers and installation of bolted extension post and tension wire system over full length of bridge.
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