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*Bill Cray
Broadway Bridge File*

James C. Codell, III
Secretary of Transportation

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

Paul E. Patton
Governor

T. Kevin Flanery
Deputy Secretary

January 7, 1997

The Honorable William I. May, Jr.
Mayor
City of Frankfort
315 West Second Street
Frankfort, KY 40602

Dear Mayor May:

The Transportation Cabinet has reviewed your letter regarding the Broadway Bridge. Our bridge inspection and maintenance staff has been of the opinion that this bridge should be removed from service for sometime now. This opinion is based primarily on observed deterioration of the thru truss span and underwater substructure problems.

The Cabinet conducted an in-depth inspection of the bridge during the Summer of 1987. Severe problems were found with stringers, lower chord connections to diagonals and verticals, the lower chord itself, and pin connections. Subsequently, a 1990 diving inspection found significant problems with Pier 2. Closure was recommended at that time, but the bridge was allowed to remain open. A September 1991 routine inspection found enough additional deterioration for the weight limit to be lowered to three tons. A November 1993 consultant inspection found further deterioration and closure was recommended. A disturbing observation made during that inspection was the fact that school buses were using the bridge despite the three-ton weight limit. In December 1993, the bridge was closed to traffic.

Haworth, Meyer and Boleyn (HMB) prepared a report on the bridge for the City in April 1995. The HMB report commented on the condition of the bridge and recommended three alternatives for re-opening the bridge for pedestrian traffic only. The estimated cost of HMB's alternatives ranged from \$386,297 to repair the existing bridge to \$498,103 to replace it with an eight-foot pedestrian walkway. This office takes issue with HMB's perception of the bridge's condition. It appears that they based their opinions on the 1987 inspection and did not take into account the further deterioration found in 1993. They also down-played the recommendations of the diving inspection.

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The Cabinet believes that HMB's estimate of \$386,297 for repairing the bridge is inadequate. This would probably get the bridge to the point it could be opened for pedestrians. However, deterioration will continue and it will need additional repair in just a few years. It would then be a constant maintenance headache. Further, we would point out that sometimes when people crowd together during special events, their weight may be more critical than vehicular loading.

The Cabinet estimates that a minimal repair to the bridge would cost approximately \$700,000. Approximately \$500,000 would be needed to replace the deck and make superstructure steel repairs. The thru truss is a pin connected truss and failure of any pin connection could collapse the bridge. Considering the age of the bridge and the amount of pack rust in these connections any repair should include replacement of these pins. This will not be an easy or cheap task. Further, if the bridge is re-opened as a pedestrian bridge, the existing sidewalk should be removed. Using an encapsulating paint system would cost about \$95,000, and the bridge would still have lead paint on it that will be a problem in the future. Substructure repairs will cost about \$105,000 because repair of Pier 2 will require de-watering.

The Cabinet does not oppose repair of the bridge for use as part of the park. However, we are opposed to our maintaining it because of the potential for significant future costs and for liability reasons. Further, the use of road fund money for maintaining a city park structure seems inappropriate. The cost of future maintenance may be quite significant.

I am sorry that our answer is not what you want, but I believe it is the correct one.

Sincerely,



James C. Codell III
Secretary
Kentucky Transportation Cabinet

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