



**SECTION 5 EAST END BRIDGE
COMBINED SECTIONS #4 AND #6 AAT & RAC MEETING**

SEPTEMBER 15, 2005

**Frazier Arms Museum
6:30 PM- 8:30 PM**

MEETING SUMMARY

INTRODUCTION

As the Section #4 AAT, Section #6 AAT, and RAC members arrived, each was presented with their own individual copy of the East End Bridge Section Design Consultant 5 (SDC5) Binder. This binder will be maintained and used by each committee member throughout the Section 5 Bridge Type Selection process to hold Meeting Agendas, Handouts, Meeting Summaries, etc. from each meeting.

EAST END BRIDGE PRESENTATION

East End Bridge Section 5 Manager Dan Carrier began the meeting by welcoming the AAT/RAC members and introducing the members of the Bi-State Management Team and the East End Bridge design team present. Dan then mentioned that the purpose of the meeting was to:

- Outline the Public Involvement process being used to select a suitable bridge type for the East End Bridge
- Describe the AAT/RAC's role in that Bridge Type Selection process
- Solicit the AAT/RAC's initial input on the guidelines to be used in the Bridge Type Selection process

Dan then introduced Section 5 Environmental Coordinator John Carr. John described the Public Involvement process being used on the project, using the CTS Bridge Type Selection Process four-step flow chart. Following John Carr's presentation, John turned the program back over to Dan Carrier for the Bridge 101 presentation.

During the Bridge 101 presentation Dan Carrier began by describing short, medium and medium to long span bridges. Dan then mentioned the four types of long span bridges suitable for the 1,100-foot span of the East End Bridge. These are:

- Truss Bridge
- Arch Bridge
- Cable-Stayed Bridge
- Suspension Bridge

Dan described key elements of each of these four suitable bridge types, and showed typical examples of the appearance of each type. Following these descriptions, Dan introduced Section 5 Bridge Architect Miguel Rosales.

Miguel Rosales then presented the aesthetic design parameters of the East End Bridge. Using slides of long span bridges in other locations, Miguel described how every bridge needs to be designed to fit within it's own unique context. A key part of Miguel's presentation was the five questions outlined below:

- What structures and buildings do you consider emblematic of the Kentucky/Indiana/Ohio River Region?
- What features of the existing Ohio River Bridges do you think are valuable/attractive?
- Should the new East End Bridge stand out or blend in with the surroundings?
- Which views of the bridge are important? (Driver's view from bridge when crossing, the view from the shoreline, or other views?)
- What visual elements of the new bridge would be important to you?

AAT/RAC DISCUSSION / COMMENTS

Following Miguel Rosales' presentation, Dan Carrier and Miguel Rosales received questions from the AAT/RAC members present about these questions and other issues. The following responses to the five specific questions listed above were received from the AAT/RAC members present.

What structures and buildings do you consider emblematic of the Kentucky/Indiana/Ohio River Region?

AAT/RAC Members	PB Team Members
Old River Fountain – but we couldn't maintain it. There is concern about being able to maintain this bridge as well.	Experience has shown that a community will work to maintain any type of bridge that it takes pride in.

What features of the existing Ohio River Bridges do you think are valuable/attractive?

AAT/RAC Members	PB Team Members
The Kennedy Bridge is not attractive – it is too bulky	
The Kennedy Bridge is not friendly – there are no walkways for pedestrians to enjoy the bridge and the river	The East End Bridge will have a pedestrian walkway/ bike path.

Should the new East End Bridge stand out or blend in with the surroundings?

AAT/RAC Members	PB Team Members
The Panama Canal Bridge and Cooper River Bridge in Charleston SC are good examples – they are striking but transparent too.	We agree that these are very attractive structures, designed to fit their own context and meet the needs of their location.
The general response to this question was that some felt it should stand out and some felt it should blend in. However, a clear majority responded, either verbally or by nodding in assent, that it should be an attractive bridge that stands out.	We agree that the bridge should be as attractive as possible, and that it could still be a landmark and symbol for the region.

Which views of the bridge are important? (Driver’s view from bridge when crossing, the view from the shoreline, or other views?)

AAT/RAC Members	PB Team Members
From the Indiana side, the curve coming in may distract people who are looking at the bridge rather than looking at the road.	
The shoreline view will be important.	

What visual elements of the new bridge would be important to you?

AAT/RAC Members	PB Team Members
Likes the Panama Canal bridge and it would work in this setting to show landscape from both approaches. Likes the single cable-stay. Are there towers done in anything rather than straight concrete?	Steel towers are not very common in the US. Complicated shapes generally cost more. Faceted versus smooth is another option for the towers. The cables tend to disappear, but many different shapes of towers can be explored – the towers are always visible. Tapers are much more elegant than rectangular shapes.
Transparency of the bridge barriers is very important. Will there be parking areas for	Parking areas remain to be decided.

tourism of the bridge? The bridge should be very light looking, friendly and not imposing.	
During the 106 process, there were height assessments done – Riverfields would be concerned about any tower heights that exceed the EIS requirements.	All of the requirements of the FEIS and ROD will be met.

SDC5 received the following general questions and comments from the AAT/RAC members present, and provided the responses shown below.

AAT/RAC Members	PB Team Members
Are there differences in maintenance between the bridge types?	Generally speaking more surface area means more maintenance. For example, the truss would probably require the most maintenance. Concrete elements typically require less maintenance than steel.
There is concern about KYTC financial stability right now. The design team should come up with annual maintenance cost estimate for each bridge type. The committee should have costs up front in order to give input.	The design team must evaluate the cost of the bridge during the Bridge Type Selection process, in order to determine that any proposed bridge type falls within the project budget. Bridge maintenance costs will become a part of this evaluation as bridge types become more refined.
Is there any element of design/construction materials that would result in more presence on the river than others? This information will be important for the committee to make any decisions.	The design process assesses the impact of construction. The FEIS & ROD have noise criteria during the construction process. An example would be: cable-stayed bridges would be built more on site, while elements of arches could possibly be built elsewhere.
One concern is the adaptability of the structure – it's being built for cars. Will it be designed to be converted to trains in the future? The bridge should be adaptable to freight rail.	The bridge will be designed and built in accordance with the transit options listed in the FEIS and ROD. Long span bridges designed for highway and truck loading can sometimes be converted to commuter rail, with a discreet number of cars. Bridges designed for highway and truck loading normally cannot carry continuous freight rail loading.

<p>Is there a real difference in cost for the different kinds of bridges?</p>	<p>The types we have shown you would be within the budget. The details that come later can be modified to balance out to the budget – these can be evaluation criteria. Planning ahead, like in this project, helps to reduce the cost of any special features.</p>
<p>Is there some rule for height vs. span length? What would the minimum height be for an 1100' span?</p>	<p>This is not an exact formula. There are some general rules of thumb. A general estimate would be about 220' towers for an 1100' span. Cable stayed would be the tallest, then arch, then truss, then suspension.</p>
<p>Could you elaborate on the pedestrian walkway/bike path?</p>	<p>It's on the west side to match paths under the bridge. The design should allow the pedestrians to feel safe while crossing the bridge</p>
<p>Does the pedestrian walkway/bike path have to be on the same level as the cars?</p>	<p>There are some bridges like this. If separated they are better if a bit higher rather than lower. Lower hides you from the traffic and can reduce safety for pedestrians.</p>
<p>The prevailing winds should be considered for the pedestrian walkway/ bike path.</p>	<p>As noted above, the location of the pedestrian walkway/bike path is specified to be on the west side of the bridge.</p>
<p>Are there plans to try and show the heights along the river that the bridge might be? The heights of the towers would be more important than the height of the roadway.</p>	<p>We may try to do this during the boat tours, using balloons to the height of the road surface.</p>
<p>The barriers look about 48 inches tall – will it be the same for the pedestrian barrier?</p>	<p>The outside barrier needs to be tall enough to protect cyclists from possibly falling over the railing. 54" is not always enough to protect cyclists. (The outside barriers on the Cooper River bridge in Charleston, SC are over 6 feet tall.) Sometimes the vehicle barrier, separating the traffic lanes and the pedestrian walkway/bike path, can use standard 2'10" concrete, with steel rail on top, to improve visibility for passengers of vehicles crossing the bridge.</p>
<p>How high is the Indiana approach? Will it look like you are looking down on the bridge?</p>	<p>The Indiana approach is slightly higher than the 71 feet vertical clearance over the water. You will come around the curve and out of trees onto the bridge – more of</p>

	a surprise. The KY approach will be a gradual approach.
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CONCLUSION / NEXT STEPS

It was mentioned that there would be SDC5 Open Houses on October 18 and 20, 2005, one in Prospect, KY and one in Utica, IN, at locations to be announced shortly. The AAT/RAC members were also advised that the next combined Section #4 AAT, Section #6 AAT, and RAC Meeting would be held in mid-November 2005. This meeting will involve polling of the attending committee members on preferences of aesthetic elements of possible bridge types.