New Bridges Over Lake Barkley and Kentucky Lake
US 68/Ky 80
August 11, 2009
Kentucky Lake
Lake Barkley
Navigational Clearance

- 502’ Minimum Horizontal Clearance
- 60’ Minimum Vertical Clearance
Just A Little Narrow
16 Person Committee

- 4 Elected Officials
- 2 Industry Representatives
- 3 Chamber of Commerce, Tourism Representatives
- 3 Planning, Development Agency Representatives
- 2 Friends of L.B.L. Representatives
- 1 Ky. Western Waterland Representative
- 1 US Forestry Service Representative

Counties Represented

Calloway    Marshall    Trigg
CAC Meeting

• July 18, 2007
• Lake Barkley State Resort Park
• 14 Attendees

Public Meeting

• July 19, 2007
• Lake Barkley State Resort Park
• 308 Attendees
25 Bridge Concepts (8 Arches, 12 Cable Stays, 2 Girders and 3 Trusses)
Girder
- Generally favorable to the public
- Least favored by the CAC

Truss
- Lowest rated

Arch
- Generally less preferred than cable-stayed

Cable-Stayed
- Highest rated
9 Preliminary Alternatives

A-1 Vertical Rib Tied Arch
A-2 Basket-Handle Tied Arch
C-1 Single Inverted “Y” Tower Cable Stay
C-2 Single “H” Tower Cable Stay
C-3 Median Two Tower Cable Stay
C-4 Diamond Two Tower Cable Stay
C-5 Single Leaning Tower Cable Stay
G-1 Steel Girder
T-1 Arched Truss
Arch A-2
Cable Stay C-1
Cable Stay C-5
Truss T-1
Round 2

CAC Meeting

- October 17, 2007
- Ken Lake State Resort Park
- 12 Attendees
- Boat Tour

Public Meeting

- October 18, 2007
- Ken Lake State Resort Park
- 166 Attendees
Round 2 Results

CAC Results

Public Results

August 11, 2009
**Preliminary Costs**

102’-6” wide bridge

<table>
<thead>
<tr>
<th>Option</th>
<th>Kentucky Lake</th>
<th>Lake Barkley</th>
<th>(2008$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alternative 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diamond Tower Cable Stay</td>
<td>$240 M</td>
<td>$220 M</td>
<td>$460 M</td>
</tr>
<tr>
<td><strong>Alternative 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Tower Cable Stay</td>
<td>$220 M</td>
<td>$210 M</td>
<td>$430 M</td>
</tr>
<tr>
<td><strong>Alternative 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girder</td>
<td>$200 M</td>
<td>$190 M</td>
<td>$390 M</td>
</tr>
<tr>
<td><strong>Alternative 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Tower Cable Stay</td>
<td>$250 M</td>
<td>$240 M</td>
<td>$490 M</td>
</tr>
</tbody>
</table>

Includes 20% Contingency
KYTC Practical Solutions Initiative

- All projects re-evaluated
- All projects “right-sized”/budget set
- Cost savings realized/project backlog reduced
- Safety and mobility maintained
**Round 3**

**CAC Meeting**

- November 20, 2008
- Lake Barkley State Resort Park
- 7 Attendees

**Public Meeting**

- November 20, 2008
- Lake Barkley State Resort Park
- 150 Attendees
- Consider Lower Cost Bridge Types
  - Additional Types Explored
    - Vertical Rib Tied Arch
    - Basket-Handle Tied Arch
- Consider Reduced Bridge Width
  - Reduced approximately 28 feet
- Bridge Type - Be Aesthetically Pleasing
- Stay on Schedule
Alternative 5
Vertical Rib Tied Arch

August 11, 2009
Alternative 6
Basket-Handle Tied Arch

August 11, 2009
### Preliminary Costs Summary

<table>
<thead>
<tr>
<th>Option</th>
<th>Kentucky Lake</th>
<th>Lake Barkley</th>
<th>Total (2008$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alternative 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diamond Tower Cable Stay</td>
<td>$ 190 M</td>
<td>$ 180 M</td>
<td>$ 370 M</td>
</tr>
<tr>
<td><strong>Alternative 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Tower Cable Stay</td>
<td>$ 180 M</td>
<td>$ 170 M</td>
<td>$ 350 M</td>
</tr>
<tr>
<td><strong>Alternative 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girder Bridge</td>
<td>$ 160 M</td>
<td>$ 150 M</td>
<td>$ 310 M</td>
</tr>
<tr>
<td><strong>Alternative 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Tower Cable Stay</td>
<td>$ 200 M</td>
<td>$ 190 M</td>
<td>$ 390 M</td>
</tr>
<tr>
<td><strong>Alternative 5</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Rib Tied Arch</td>
<td>$ 160 M</td>
<td>$ 160 M</td>
<td>$ 320 M</td>
</tr>
<tr>
<td><strong>Alternative 6</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basket-Handle Tied Arch</td>
<td>$ 160 M</td>
<td>$ 160 M</td>
<td>$ 320 M</td>
</tr>
</tbody>
</table>

**74’-6” wide bridge**
Preliminary Costs Include

- Environmental Commitments
- Shore to Shore Bridge
- 6,200 Ft Roadway Approaches
- 11,700 Ft Ped/Bikeway
April 2, 2009 CAC Meeting

- Follow up to November 20, 2008 Meeting
- Location: Lake Barkley State Resort Park
- 8 Attendees
- 6 Final Alternatives With Costs Presented
- Unanimous CAC Recommendation for Basket-Handle Arch
Bridge Type Selection

August 11, 2009
Ky Lake
Ky Lake
Lake Barkley
Aerial
Pedestrian View
Boaters View
Alternative 6 - Basket-Handle Tied Arch
**Schedule**

**Late 2009**
- Preliminary and Final Design Begins

**2011-12**
- Construction Begins