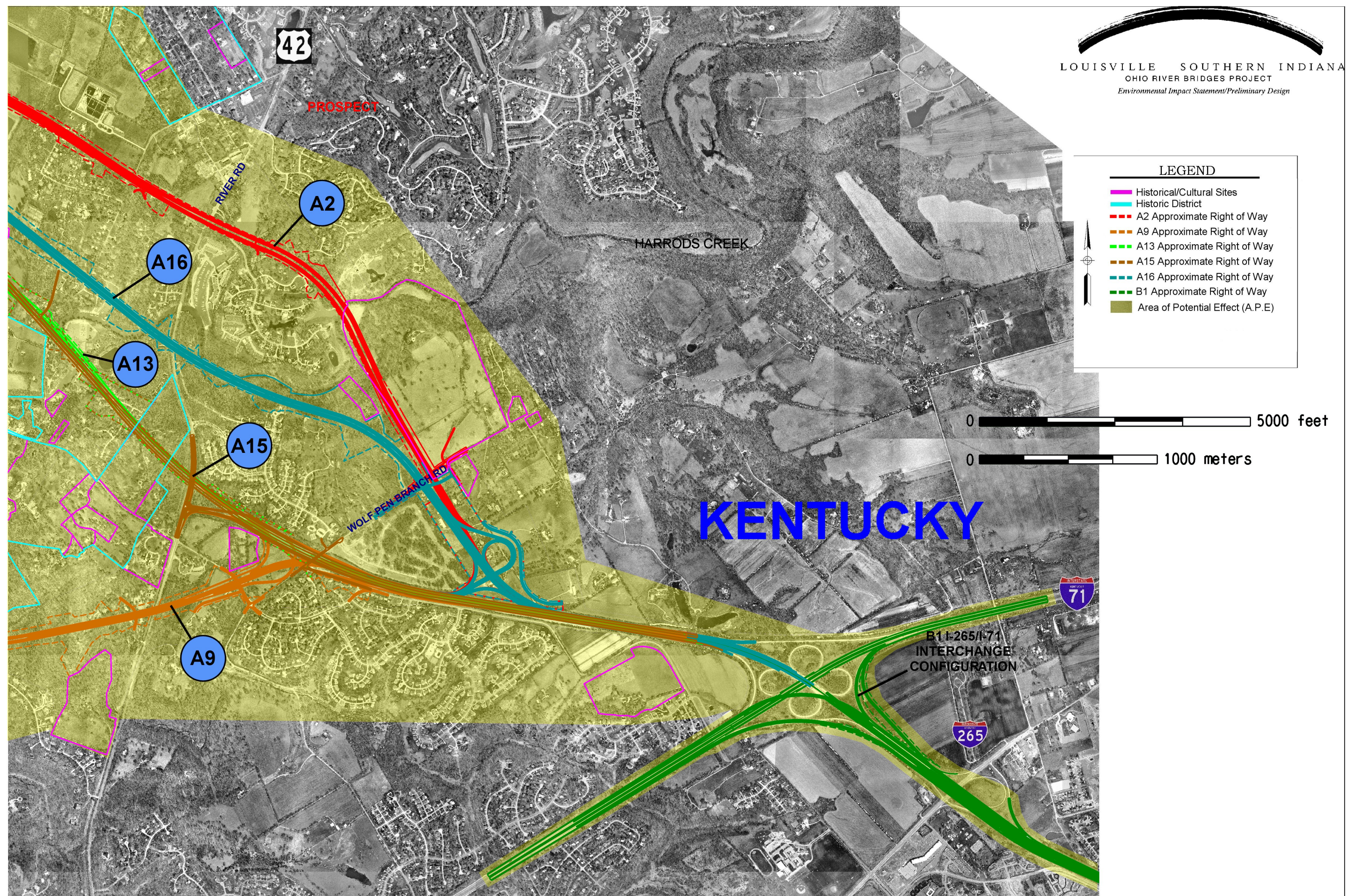


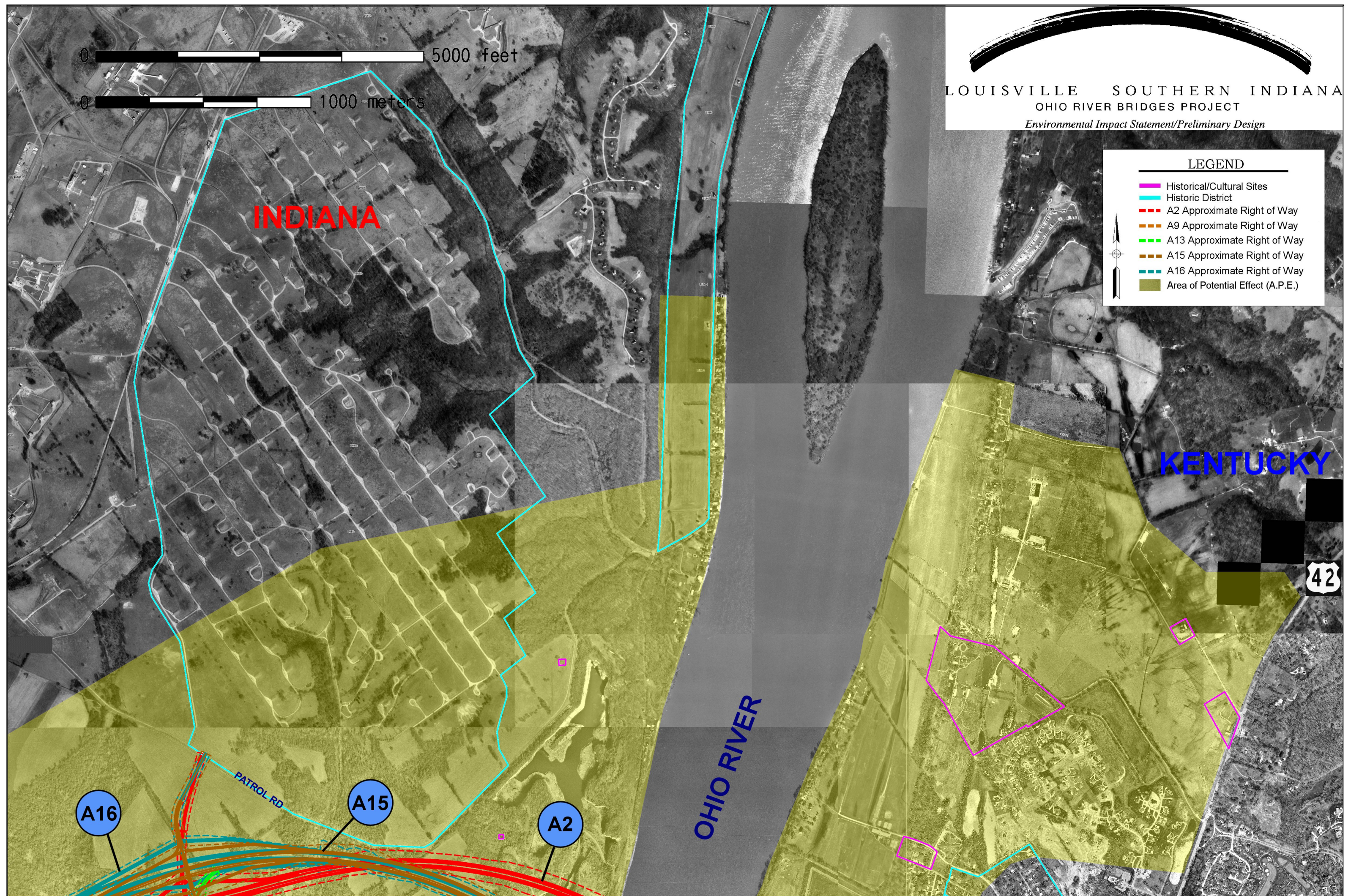
**Alternative Area of Potential Effect
Indiana East End**

Figure 4.3-3



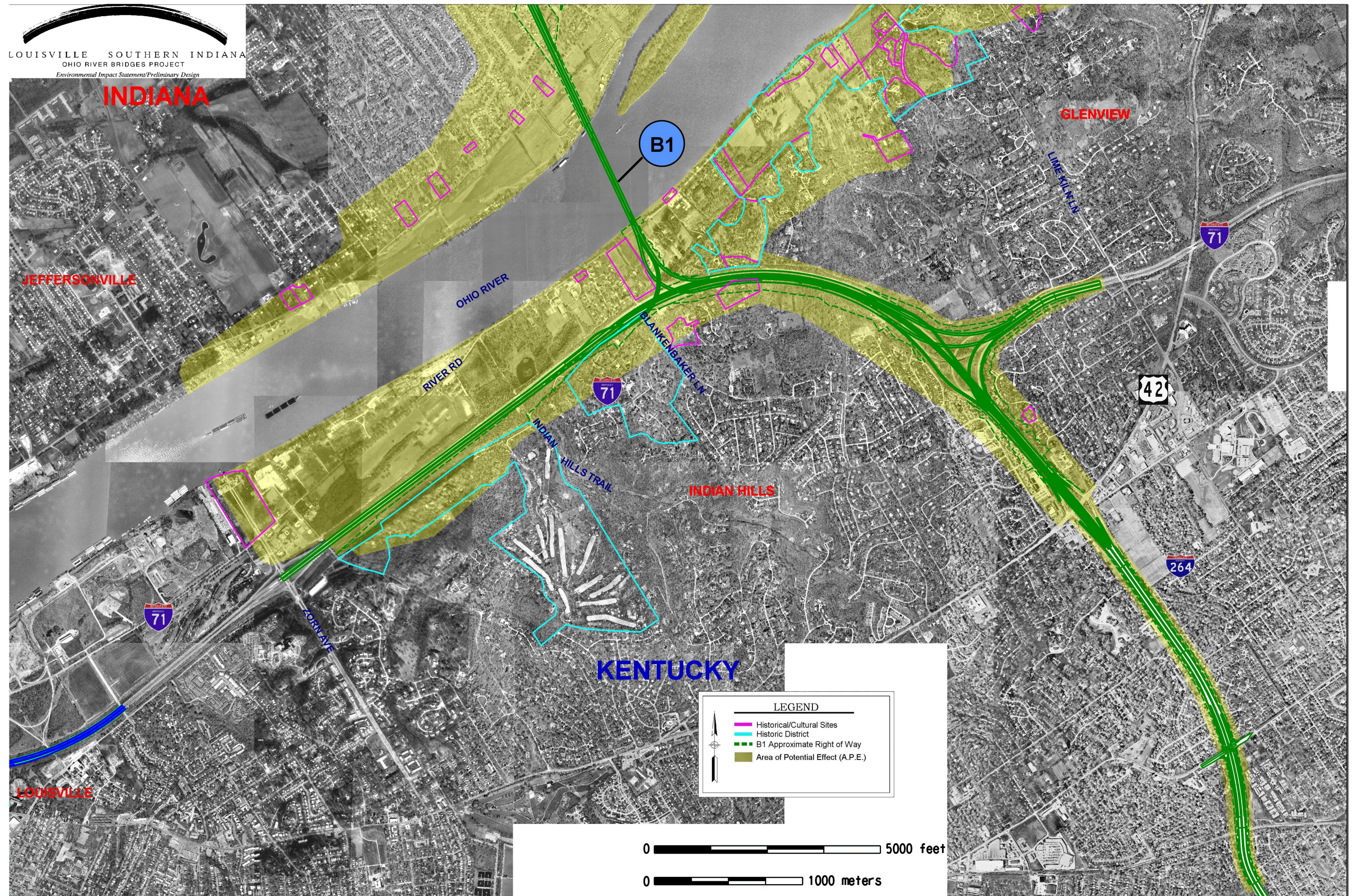
**Alternative Area of Potential Effect
Kentucky East End**

Figure 4.3-4



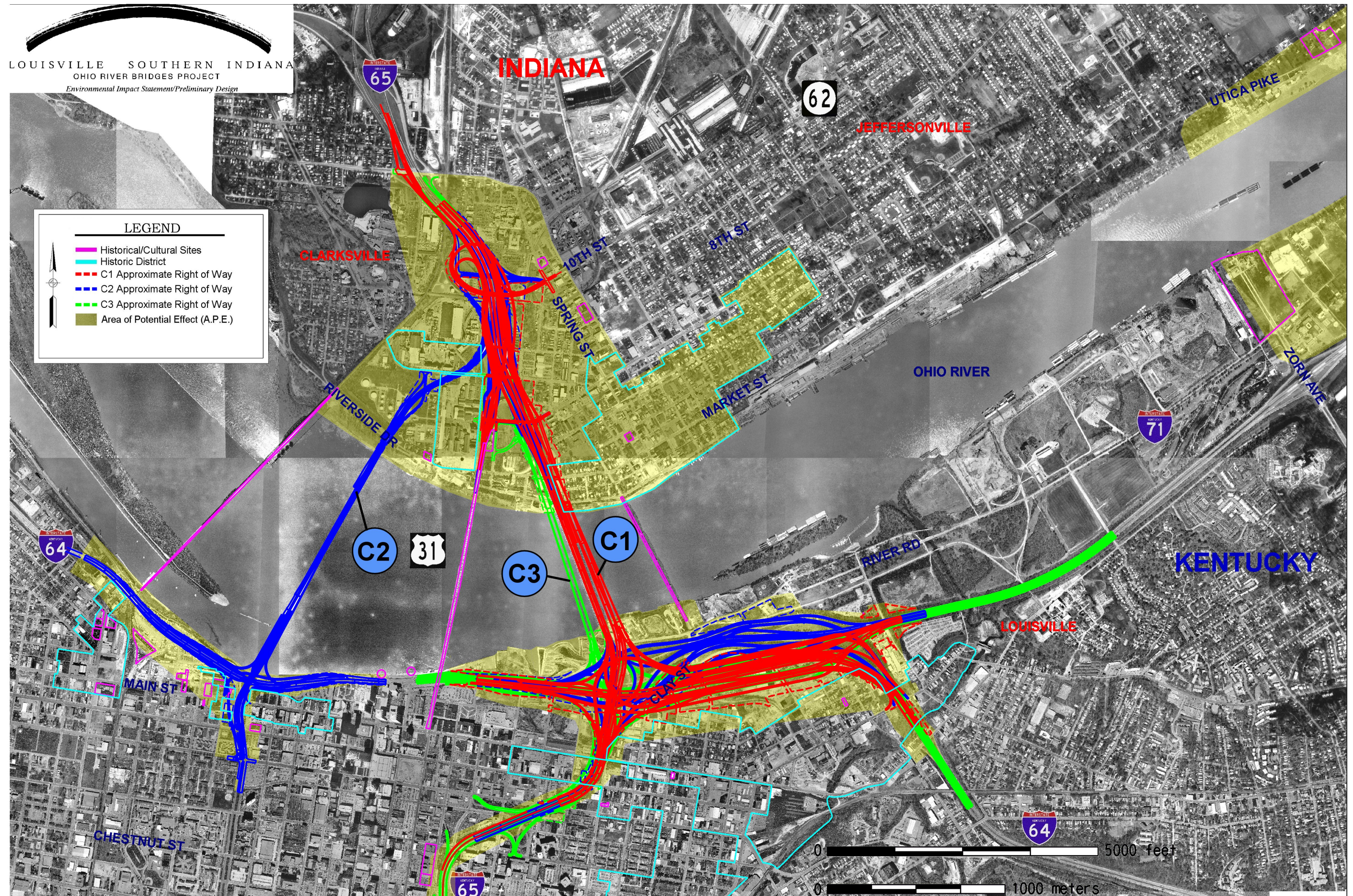
**Alternative Area of Potential Effect
Far East**

Figure 4.3-5



**Alternative Area of Potential Effect
Mid East**

Figure 4.3-6



Alternative Area of Potential Effect
Downtown

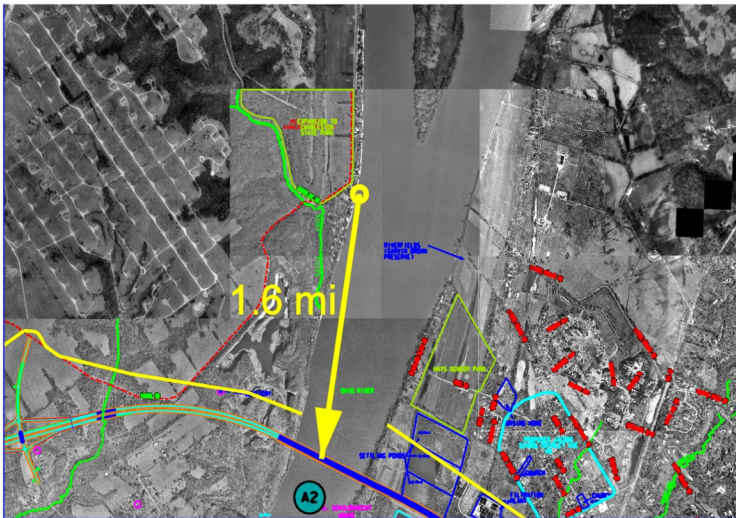
Figure 4.3-7

The analysis of potential noise effects was based on a review of numerous noise receptor measurement points in the vicinity of the eastern alignments. Only receptor points on the “outside” of the two outer eastern alignments, Alternatives A-2 and A-9, were considered in this analysis to determine the outer boundary of the area of potential noise effects. All areas between A-2 and A-9, which included Alternatives A-13, **A-15** and A-16, were presumptively included in the expanded APE for noise, because of the overlap in the noise (5 dBA) levels for the relatively closely spaced alternative alignments in this area. A sufficient number of receptor points were evaluated to provide a reasonable approximation of the outer boundary of the 5 dBA noise increase area.

The existing background noise levels for most of the receptor points evaluated in this analysis were within the moderate range (45 to 55 dBA), with only a few points in excess of 60 dBA and one point in excess of 70 dBA. Because of these fairly uniform existing background noise levels, the inclusion of additional receptor points likely would provide little additional refinement to the estimate of the area in which a 5 dBA or greater increase may occur. This modeling approach, which is based on a conservative 5 dBA (i.e. perceptible) noise threshold, is further conservative because the noise shielding effect of existing features was not considered in the analysis. A barren landscape was assumed when constructing the noise model used in the evaluation.

The expanded visual APE is the area within which views of elements of the undertaking may have an effect on historic properties. The revised boundaries of the visual component of the APE were developed based on a review of the area’s topography and intervening visual obstructions, such as topographical barriers, trees and other vegetation, and buildings, which may block views of a new bridge. In addition, a two-mile outer boundary was established through consultation with the Indiana and Kentucky SHPOs as the limit of any potential visual effect of a new bridge on historic properties. This analysis was based on potential views of a bridge with 300-foot tall towers located at each of the potential eastern river crossing locations. Computer-generated visualizations of potential new bridges, as seen from several properties in the Ohio River corridor, were prepared to assist in the analysis of the undertaking’s potential visual effects. These conclusions, based on the review of topography, existing land uses and computer visualizations, were field verified. These visualizations are included as Figures 4.3-8 through 4.3-14, inclusive.

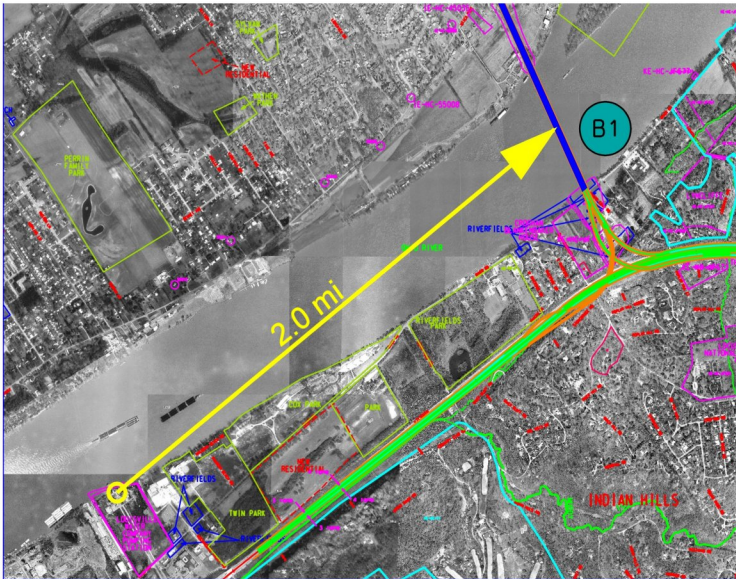
The visual component of the APE includes a great diversity of views, ranging from wide panoramic views of the Ohio River from upland and bottomland areas, to narrow restricted views limited by both dense vegetation and the topography of ravines and tributaries to the Ohio River. Many of the boundaries of the APE follow natural landforms, such as bluffs or ravines, that serve to obstruct views of the river or proposed structures on or adjacent to the river.



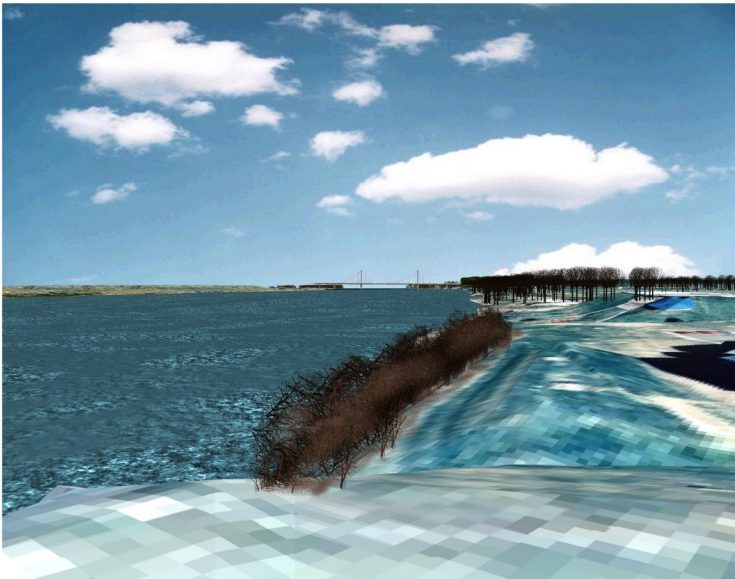
A. Plan view showing camera location used to generate image B



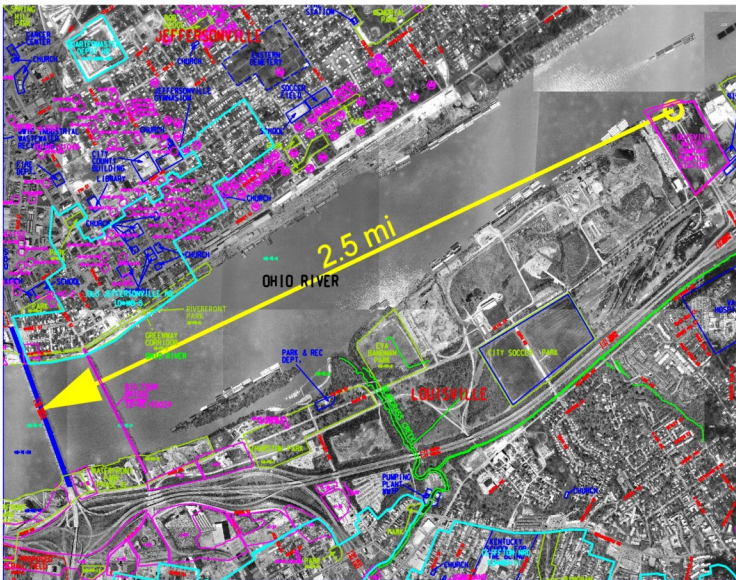
B. Superimposed photo of Ohio River Bridge looking south from pier behind home on Longview Beach in Clark County, IN
Approximately located at Ohio River mile 593.5 (Alignment A2)



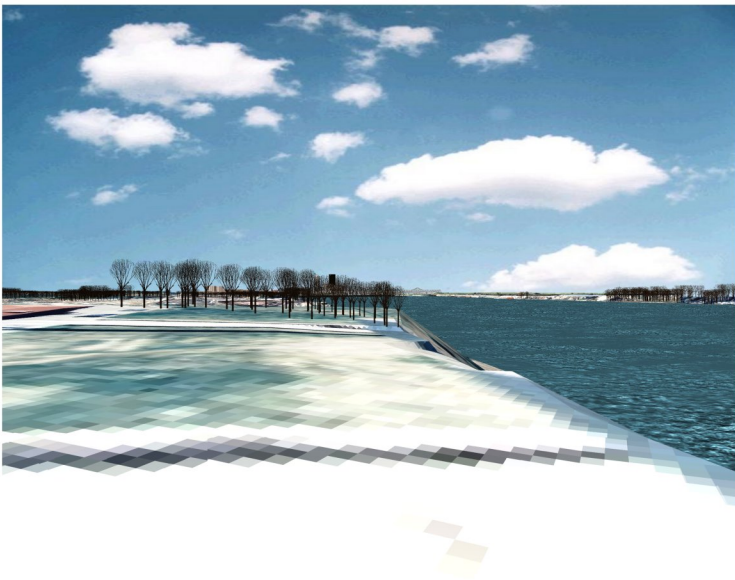
C. Plan view showing camera location used to generate image D



D. Rendered view of Ohio River Bridge looking northeast from the historic Louisville Water Company Pumping Station in Louisville, KY
(Alignment B1)

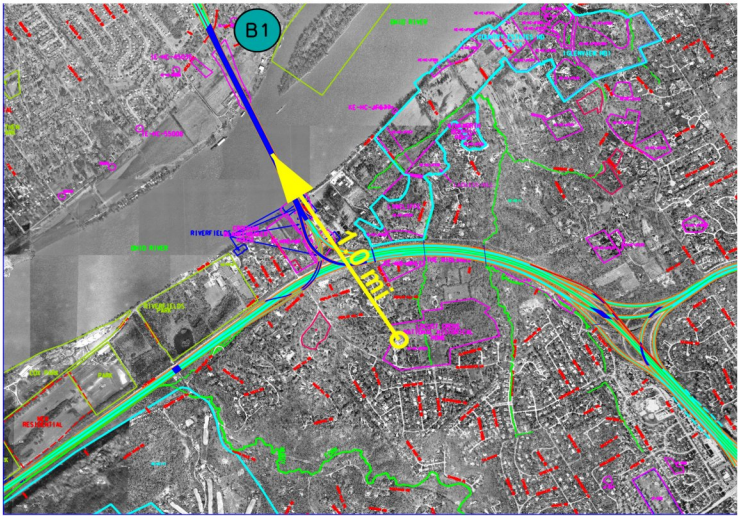


E. Plan view showing camera location used to generate image F

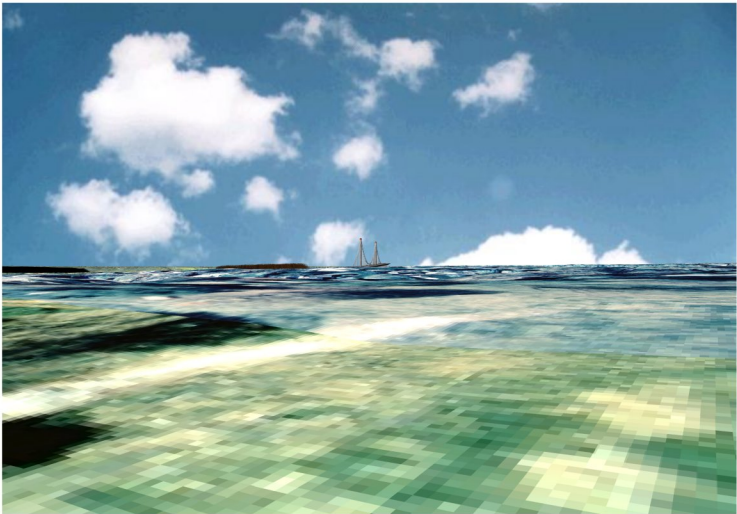


F. Rendered view of existing Kennedy Memorial Bridge in Downtown Louisville looking southwest from the historic Louisville Water Company Pumping Station in Louisville, KY

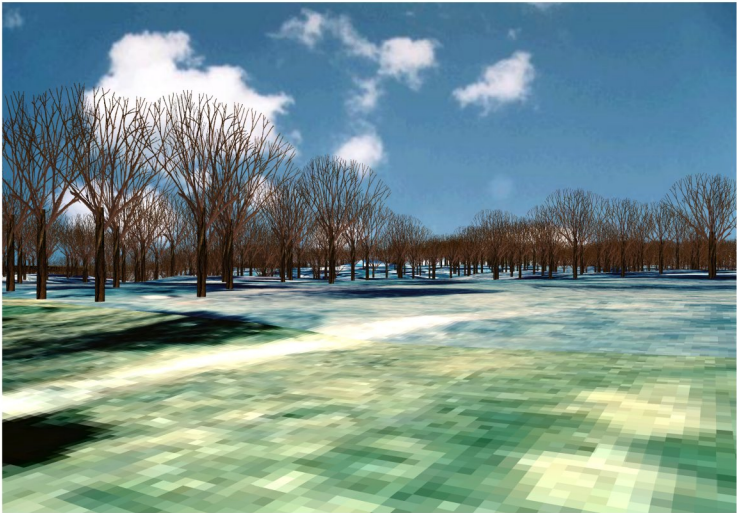
Note: These images show specific bridge designs solely to illustrate the size and position of the various alternatives.
 The actual bridge design to be used will be determined in a later study done after and if a build decision is made.



A. Plan view showing camera location used to generate images B & C

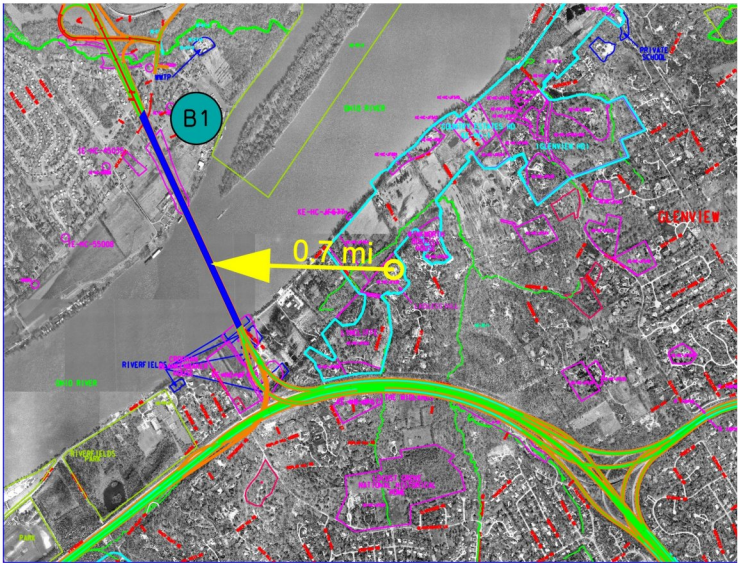


B. Rendered view of Ohio River Bridge looking northwest from the Locust Grove National Historical Home in Louisville, KY
This view rendered without trees (Alignment B1)

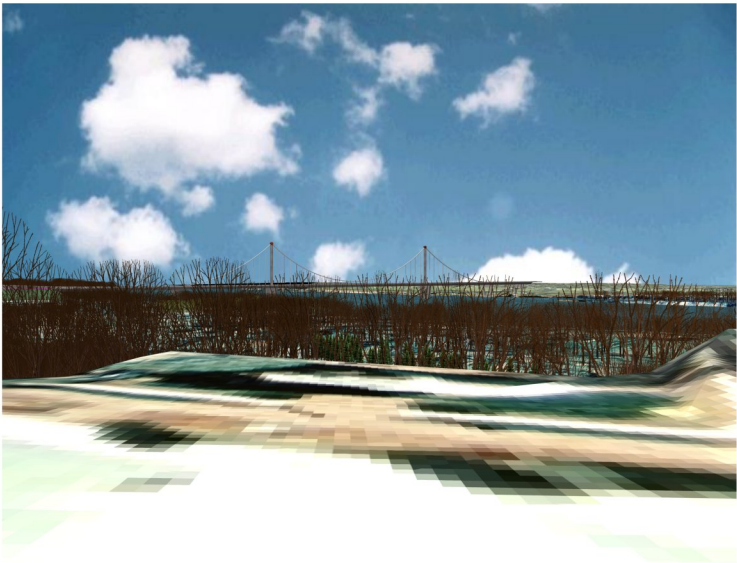


C. Rendered view of Ohio River Bridge looking northwest from the Locust Grove National Historical Home in Louisville, KY
This view rendered with trees (Alignment B1)

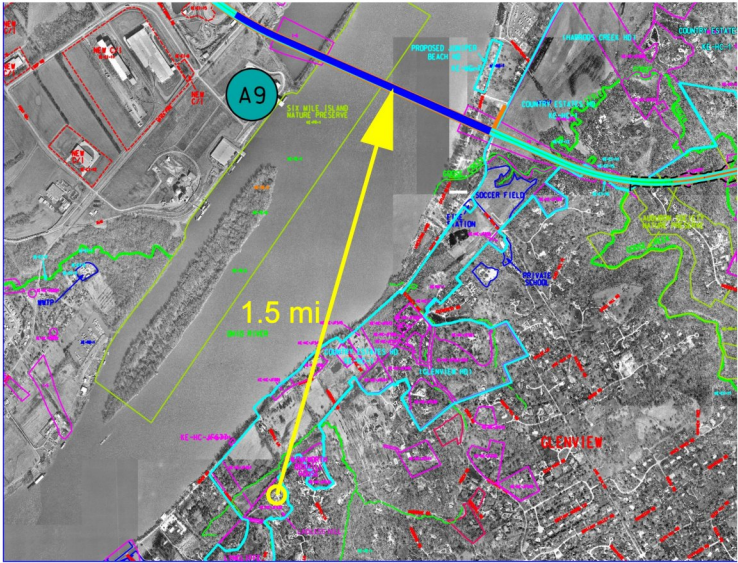
Note: These images show specific bridge designs solely to illustrate the size and position of the various alternatives. The actual bridge design to be used will be determined in a later study done after and if a build decision is made.



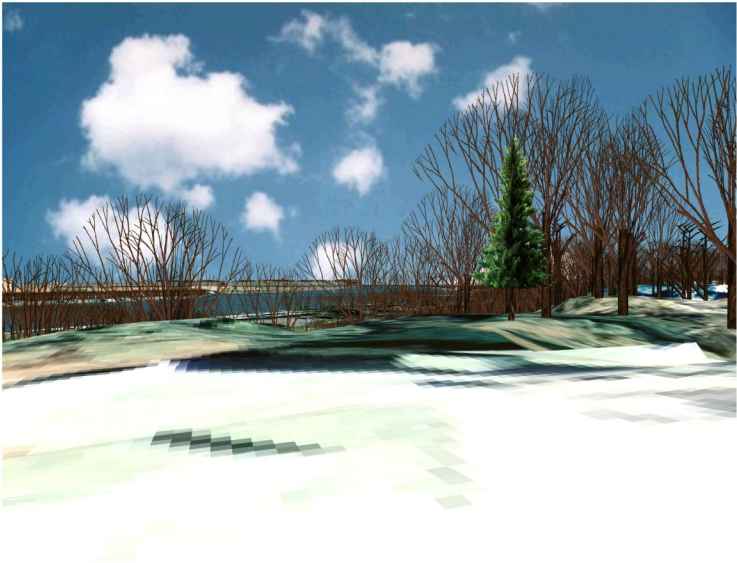
A. Plan view showing camera location used to generate image B



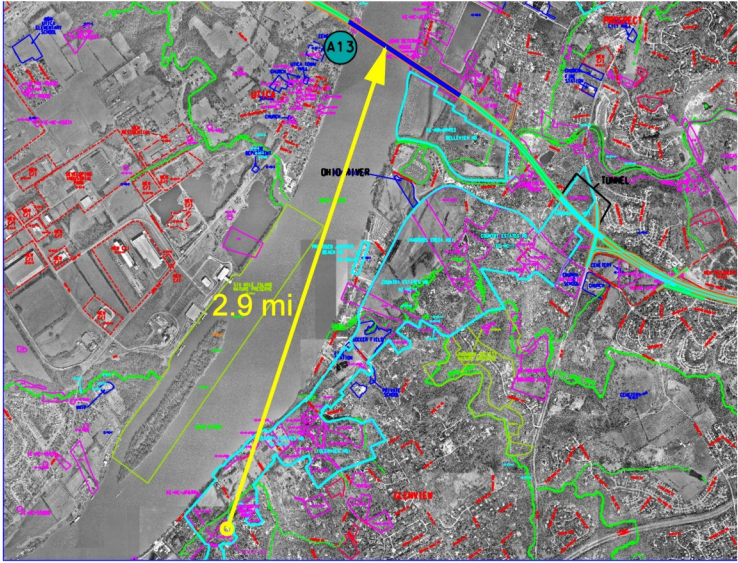
B. Rendered view of Ohio River Bridge looking west from the Brandeis House/Ladless Hill property in the Glenview Historic District near Prospect, KY (Alignment B1)



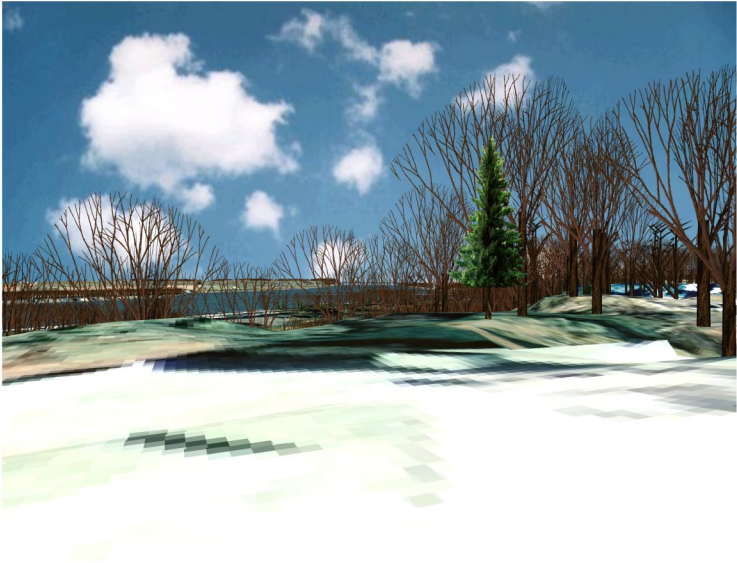
C. Plan view showing camera location used to generate image D



D. Rendered view of Ohio River Bridge looking northeast from the Brandeis House/Ladless Hill property in the Glenview Historic District near Prospect, KY (Alignment A9)

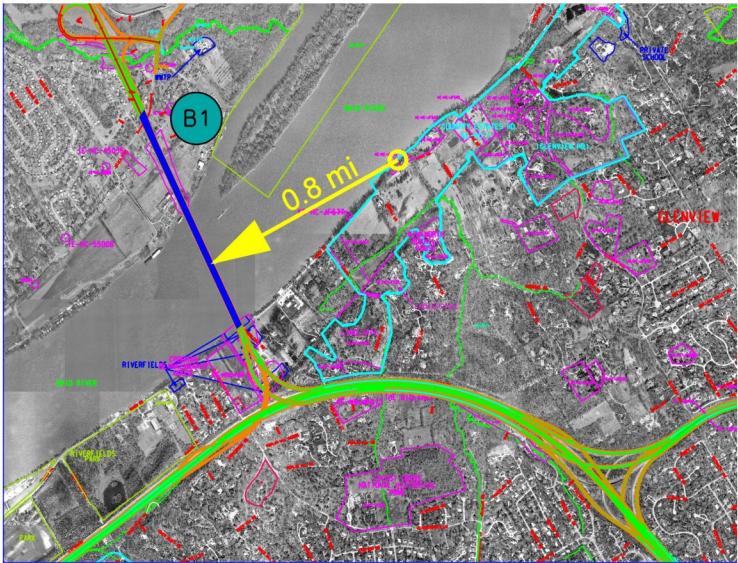


E. Plan view showing camera location used to generate image F

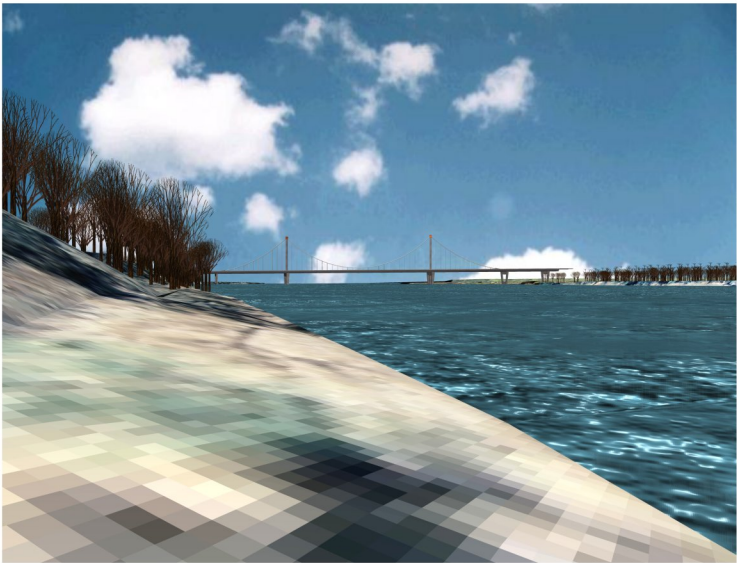


F. Rendered view of Ohio River Bridge looking northeast from the Brandeis House/Ladless Hill property in the Glenview Historic District near Prospect, KY (Alignment A13)

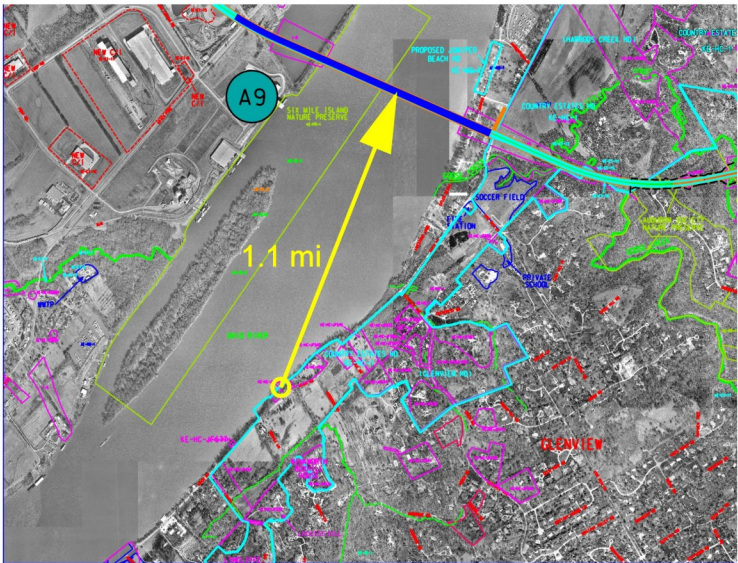
Note: These images show specific bridge designs solely to illustrate the size and position of the various alternatives. The actual bridge design to be used will be determined in a later study done after and if a build decision is made.



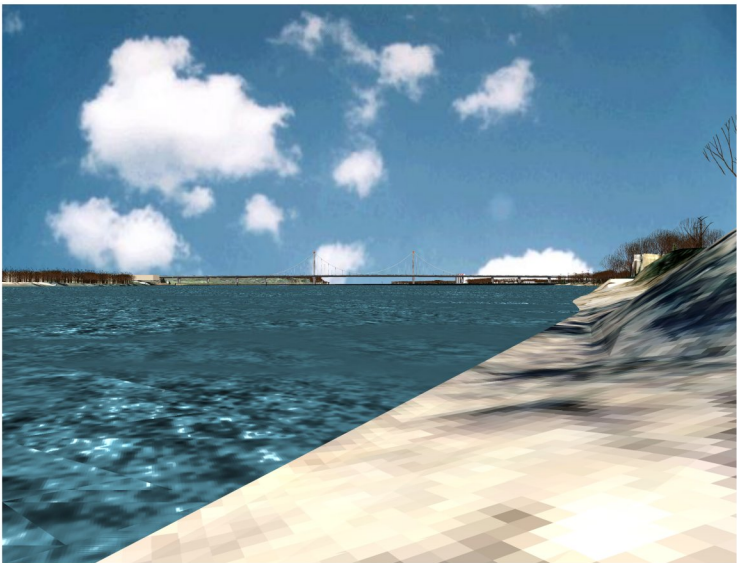
A. Plan view showing camera location used to generate image B



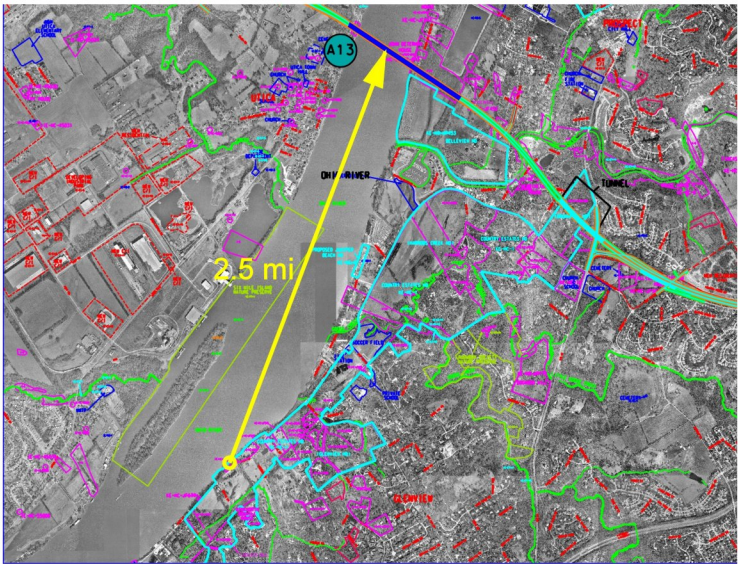
B. Rendered view of Ohio River Bridge looking southwest from river's edge behind the River Valley Club property in the Glenview Historic District near Prospect, KY (Alignment B1)



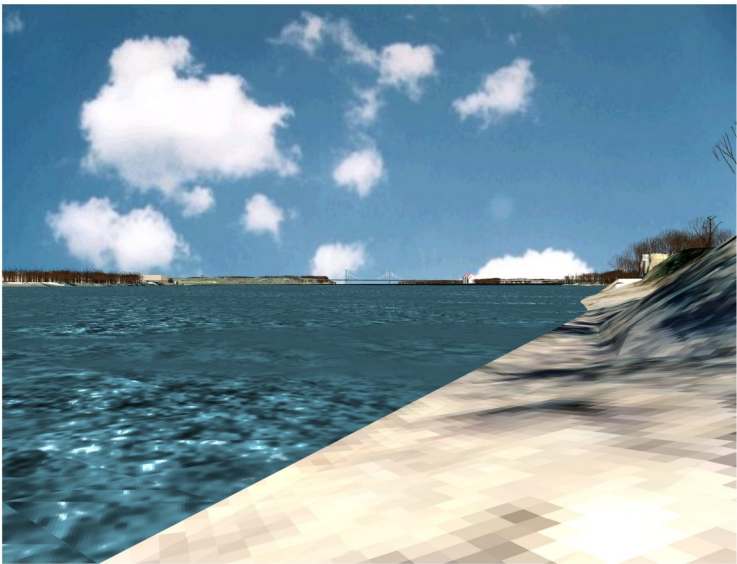
C. Plan view showing camera location used to generate image D



D. Rendered view of Ohio River Bridge looking northeast from river's edge behind the River Valley Club property in the Glenview Historic District near Prospect, KY (Alignment A9)

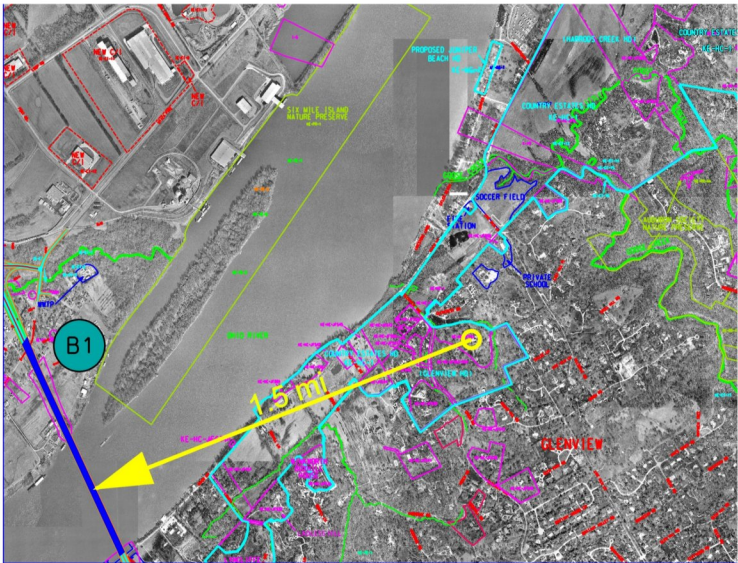


E. Plan view showing camera location used to generate image F

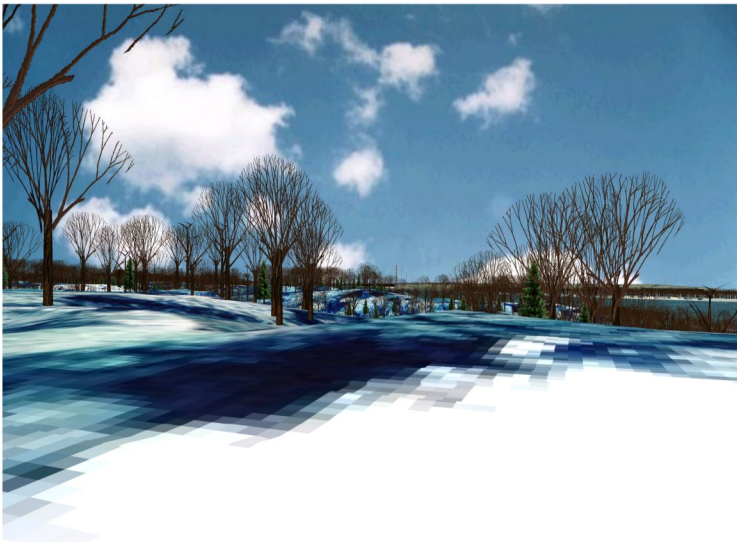


F. Rendered view of Ohio River Bridge looking northeast from river's edge behind the River Valley Club property in the Glenview Historic District near Prospect, KY (Alignment A13)

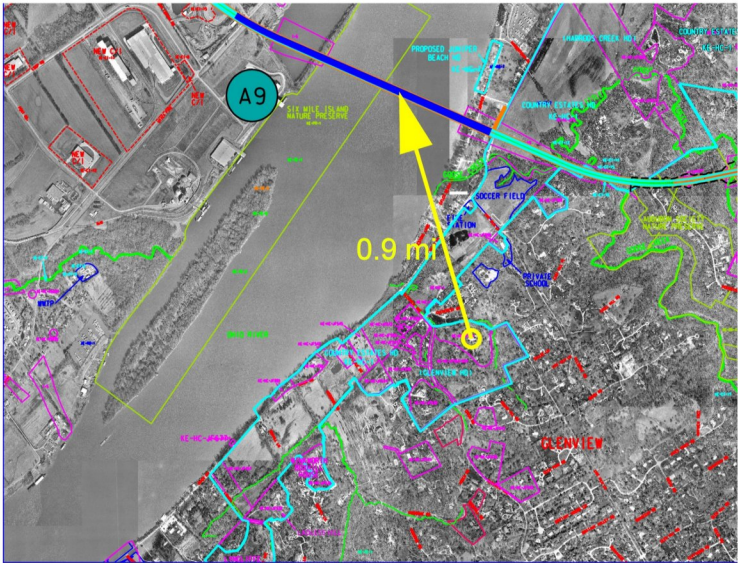
Note: These images show specific bridge designs solely to illustrate the size and position of the various alternatives. The actual bridge design to be used will be determined in a later study done after and if a build decision is made.



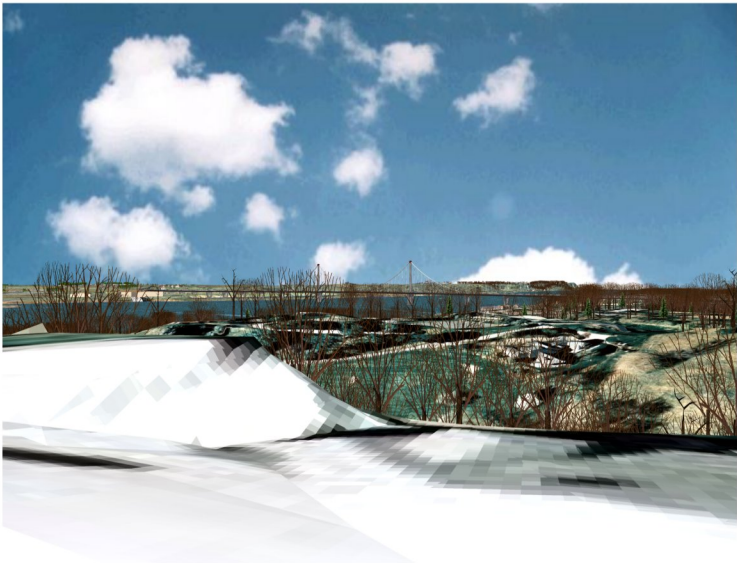
A. Plan view showing camera location used to generate image B



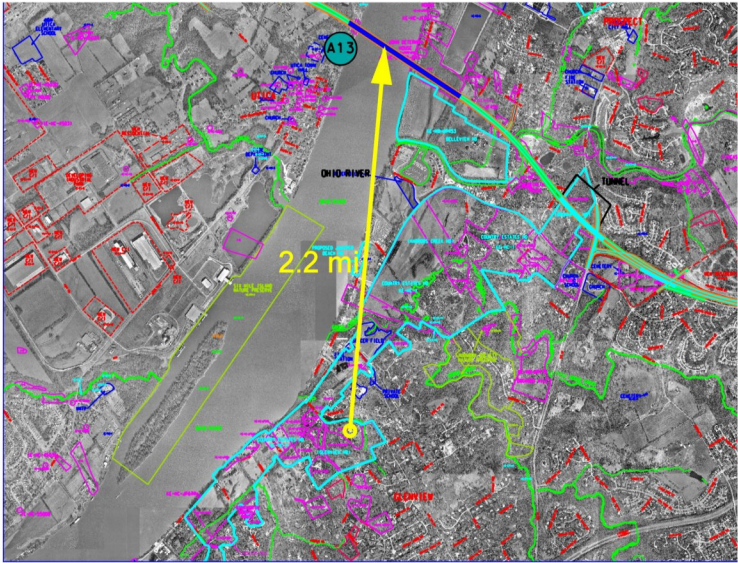
B. Rendered view of Ohio River Bridge looking southwest from Melcombe in the Glenview Historic District near Prospect, KY (Alignment B1)



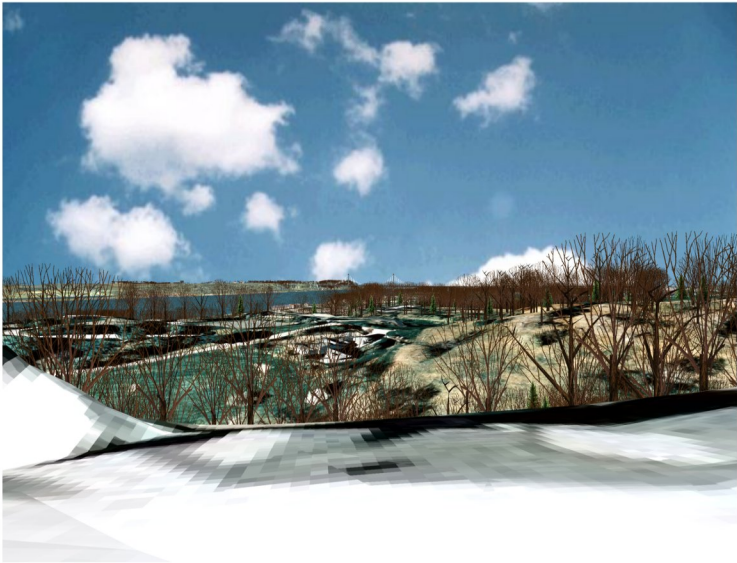
C. Plan view showing camera location used to generate image D



D. Rendered view of Ohio River Bridge looking northwest from Melcombe in the Glenview Historic District near Prospect, KY (Alignment A9)

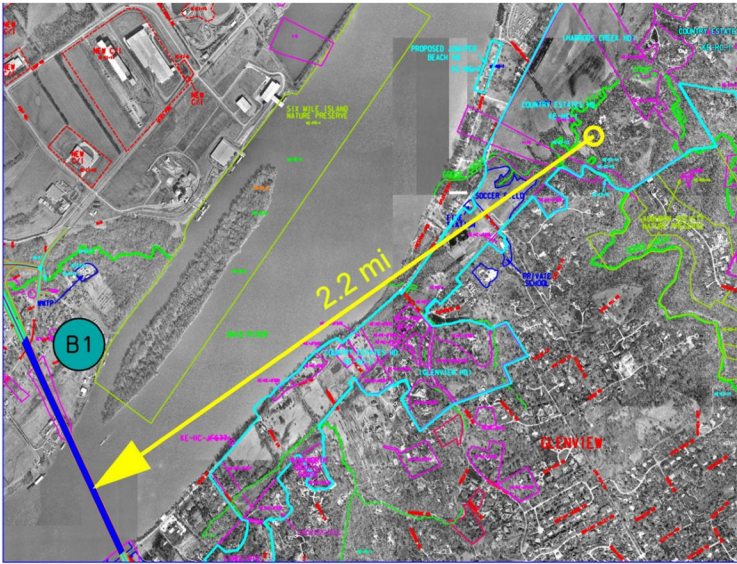


E. Plan view showing camera location used to generate image F

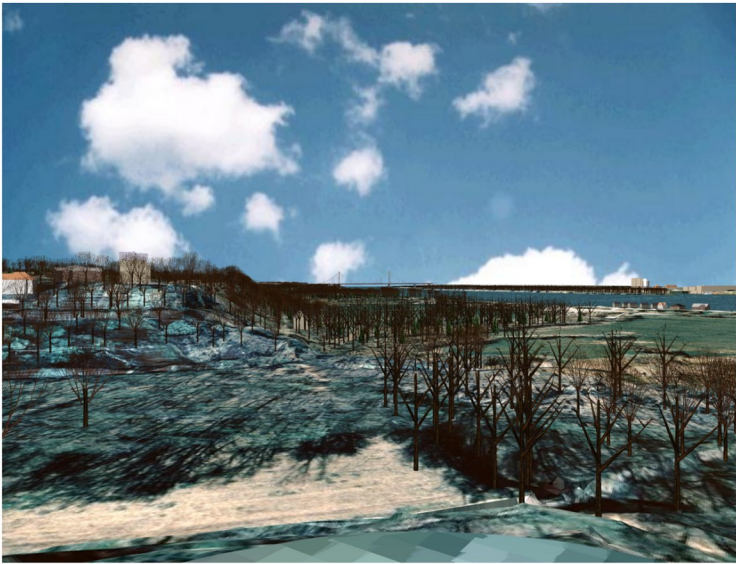


F. Rendered view of Ohio River Bridge looking northeast from Melcombe in the Glenview Historic District near Prospect, KY (Alignment A13)

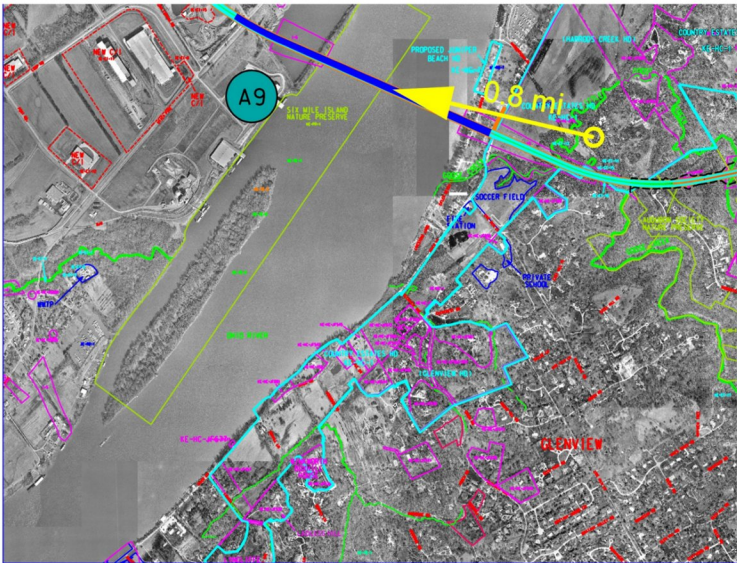
Note: These images show specific bridge designs solely to illustrate the size and position of the various alternatives. The actual bridge design to be used will be determined in a later study done after and if a build decision is made.



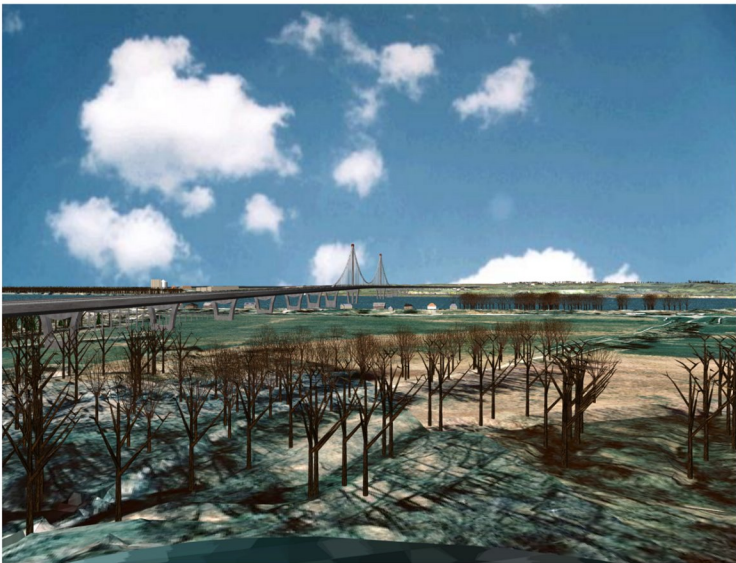
A. Plan view showing camera location used to generate image B



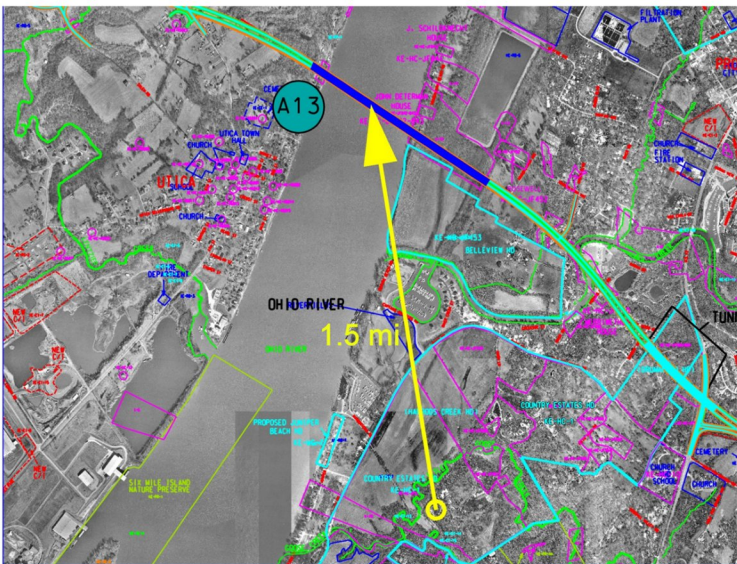
B. Rendered view of Ohio River Bridge taken from home located near Avish Lane in the Country Estates Historic District looking southwest (Alignment B1)



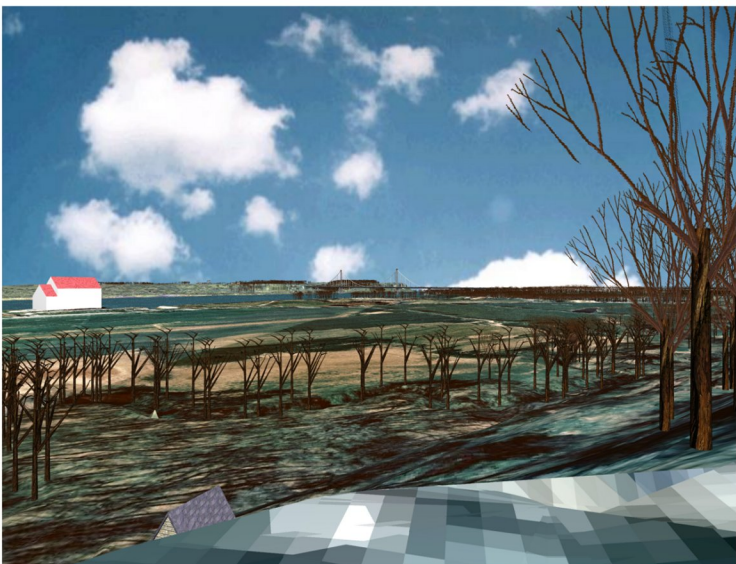
C. Plan view showing camera location used to generate image D



D. Rendered view of Ohio River Bridge taken from home located near Avish Lane in the Country Estates Historic District looking northwest (Alignment A9)

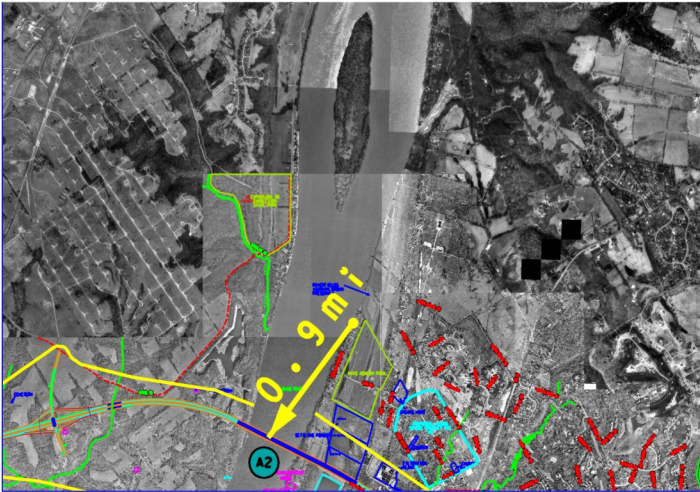


E. Plan view showing camera location used to generate image F



F. Rendered view of Ohio River Bridge taken from home located near Avish Lane in the Country Estates Historic District looking northwest (Alignment A13)

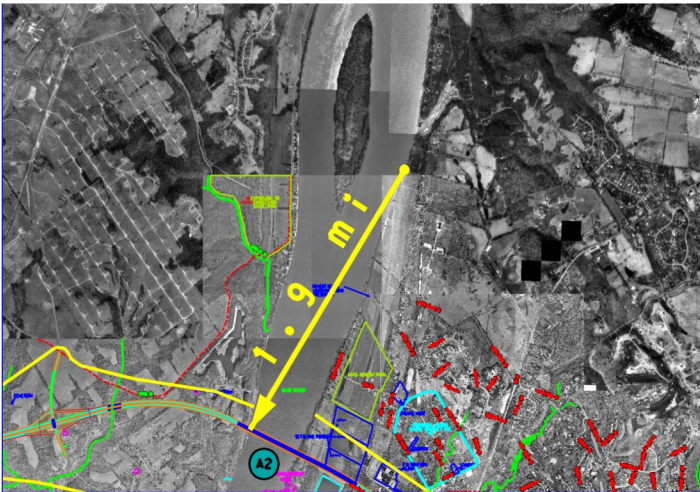
Note: These images show specific bridge designs solely to illustrate the size and position of the various alternatives. The actual bridge design to be used will be determined in a later study done after and if a build decision is made.



A. Plan view showing camera location used to generate image B



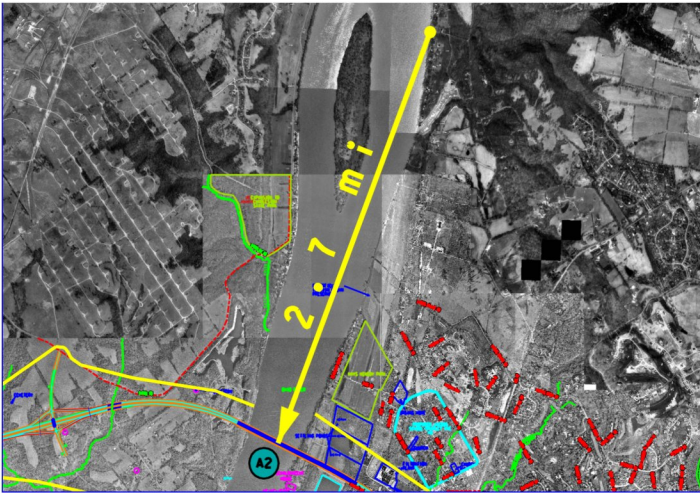
B. Superimposed photo of Ohio River Bridge taken from behind home on Beechland Beach in Prospect, KY looking southwest
Approximately located at Ohio River mile 594 (Alignment A2)



C. Plan view showing camera location used to generate image D



D. Superimposed photo of Ohio River Bridge taken from behind subdivision currently being developed in Prospect, KY at the Jefferson County/Oldham County line looking southwest
Approximately located at Ohio River mile 593 (Alignment A2)



E. Plan view showing camera location used to generate image F



F. Superimposed photo of Ohio River Bridge taken from behind home on Belknap Beach in Oldham County, KY looking southwest
Approximately located at Ohio River mile 592 (Alignment A2)



Figure 4.3-14
Computer-Generated Visualizations of Potential New Bridges

Note: These images show specific bridge designs solely to illustrate the size and position of the various alternatives. The actual bridge design to be used will be determined in a later study done after and if a build decision is made.

Indiana

Four literature and file searches with accompanying windshield surveys were conducted to identify historic and cultural resources in Indiana. These surveys were undertaken in January 1999 (revised May 1999), in August 1999, in February 2000 (revised March 2000) and in April 2000. Each of these surveys was compiled into one document entitled “Historical and Cultural Survey – Indiana Downtown and East End Area of Potential Effect” in November 2000.

In order to determine known and existing historic resources in these surveys, the following repositories were visited or contacted:

- Division of Historic Preservation and Archaeology, Indianapolis
- Indiana State Library, Indiana History Collection
- Indiana Historical Society
- Geography Library, Indiana University, Bloomington
- Jeffersonville Public Library
- New Albany/Floyd County Public Library
- U.S. Army Corps of Engineers, Louisville District Office Historian
- Babcock and Wilcox (Boiler Manufacturers), Mt. Vernon, Indiana
- Colgate, Palmolive, Peet Company Historian
- Historic 7.5 Minute Series U.S.G.S. Topographical Maps
- Historic Landmarks Foundation, Southern Regional Office

The “Clark County Interim Report” including the original forms and maps on file with the Indiana State Historic Preservation Officer (SHPO) was the major source for sites that have been identified as eligible for inclusion on the NRHP, as well as the listing of sites presently listed on the NRHP. Sanborn mapping within the APE was compiled as early as 1886 for the city of Jeffersonville, which includes present day Clarksville. Sanborn mapping was prepared in 1891, 1898, 1904, 1911 and 1925. The Sanborn Company published mapping for the town of Utica. In addition, one Atlas, published in 1875 is known to exist for Clark County. The records of the USACE included numerous photographs along the river, but no historic structures were known to exist on the Indiana side of the Ohio River above the McAlpine pool. Babcock and Wilcox, once active along the Ohio River, reported no known sites of their activity within the APE.

As each survey was completed, it was forwarded to the Indiana SHPO for review and comment. Indiana SHPO comment letters were received on April 5, 1999, April 15, 1999, August 9, 1999, February 16, 2000 and August 15, 2000, copies of which are referenced in Chapter 7. As appropriate, revisions were made in the “Historical and Cultural Survey” for compatibility with the Indiana SHPO concerns.

A second report entitled “Cultural Resources Reconnaissance and Analysis, Phase II, Indiana Historic Resources,” completed in February 2001, was prepared to identify those sites and/or structures located within the original Alternative Specific APE in Indiana that are included on, or are eligible for inclusion on, the NRHP. Geographic areas included within the APE were separated into East End and Downtown areas. Each area included sites and/or structures that