U.S. Department of Transportation
Federal Highway Administration

Brent Spence Bridge
Replacement/Rehabilitation Project

KENTUCKY TRANSPORTATION CABINET

Draft Individual Section 4(f) Evaluation

ODOT PID No. 75119
HAM-71/75-0.00/0.22
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1.0 INTRODUCTION

This Draft Section 4(f) Evaluation has been prepared pursuant to Section 4(f) of the Department of Transportation Act of 1966, codified in 49 USC 303 and 23 USC 138 and section 6009 of the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU). Section 4(f) protects publicly owned land within parks, recreation areas, and wildlife and waterfowl refuges and historic and archaeological sites whether publicly or privately owned. Historic sites are protected under Section 4(f) if they have been listed in or determined eligible for listing on the National Register of Historic Places (NRHP). Section 4(f) applies to archaeological sites that are on or eligible for listing on the NRHP and that warrant preservation in place. Properties protected by Section 4(f) are referred to in this document as "Section 4(f) resources."

The requirements of Section 4(f) apply only to agencies within the U.S. Department of Transportation (USDOT). The Secretary of the USDOT may approve a transportation project that "uses" a Section 4(f) resource only if the Secretary makes the following findings:

- There is no feasible and prudent alternative available to the use of land from the Section 4(f) resources; and
- The project includes all possible planning to minimize harm to the Section 4(f) resource resulting from the use (23 CFR 774.17).

A Section 4(f) use occurs when property from a Section 4(f) resource is:

- Permanently incorporated into a transportation project;
- When there is a temporary occupancy of the Section 4(f) site that is adverse in terms of the statutes' preservationist purposes; and/or
- When the proximity of the project's impacts are so severe that the protected activities, features, or attributes that qualify the resource for protection are substantially impaired.

When impacts are determined not to be adverse, a USDOT agency can approve the use of a Section 4(f) resource, by making a finding of *de minimis* impact. The option of making a finding of *de minimis* impact was created by an amendment to Section 4(f) in section 6009 of SAFETEA-LU, which was enacted on August 10, 2005. Section 6009 also required the Section 4(f) regulations to be updated in order to provide greater clarity regarding the standards and procedures for determining whether there are "prudent and feasible" avoidance alternatives for a potential Section 4(f) use. Revised Section 4(f) regulations were issued on March 12, 2008 and are codified in 23 CFR Part 774.

This Draft Individual Section 4(f) Evaluation describes resources adversely affected by the proposed project and impacts to these resources. These resources are the Lewisburg Historic District in Kentucky; and Longworth Hall, and the West McMicken Avenue Historic District in Ohio. Avoidance alternatives and measures to minimize and mitigate harm are also discussed.

1.1 Project Description

The Ohio Department of Transportation (ODOT) and Kentucky Transportation Cabinet (KYTC) are proposing to improve the operational characteristics of a 7.8-mile segment of Interstate 71 (I-71), Interstate I-75 (I-75), and the Brent Spence Bridge in the Greater Cincinnati/Northern Kentucky region. This project proposes to add travel lanes, eliminate where possible the geometric deficiencies of the interstate, rehabilitate the existing Brent Spence Bridge, which carries I-71/I-75 over the Ohio River between Covington, Kentucky and Cincinnati, Ohio, and construct a new bridge to the west of the existing bridge.

Two Build Alternatives are evaluated in the Environmental Assessment (EA) for the Brent Spence Bridge Replacement/Reconstruction Project, Alternatives E and I. Alternative I is recommended as the Preferred Alternative. This recommendation is based on the design features, local access features, traffic operations, estimated costs, and environmental impacts. Both alternatives have the potential to result in the use of Section 4(f) resources. Both Build Alternatives would use land from two Section 4(f) resources in Kentucky (the Lewisburg Historic District and Goebel Park) and three Section 4(f) resources in Ohio (Longworth Hall, Queensgate Playground and Ball Fields and the Western Hills Viaduct [WHV]). An additional Section 4(f) impact in Ohio would occur to the West McMicken Avenue Historic District with the selection of a single point urban interchange (SPUI) to replace the existing WHV interchange. However, this impact can be avoided with a tight urban diamond interchange (TUDI). The recommended preferred alternative (Alternative I) includes a TUDI to avoid impacts to the West McMicken Avenue Historic District.

The Federal Highway Administration (FHWA)-Kentucky Division has determined that the project with the KYTC committed mitigations will have a *de minimis* impact, as defined in 23 CFR 774.17, on Goebel Park in Covington, Kentucky. ODOT has stated their intent to request *de minimis* Section 4(f) findings for the Queensgate Playground and Ball Fields and the Western Hills Viaduct in Cincinnati, Ohio.

1.2 Project Background

The I-75 corridor within the Greater Cincinnati/Northern Kentucky region is a major thoroughfare for local and regional mobility. Locally, it connects to I-71, Interstate 74 (I-74) and US Route 50 (US 50). The Brent Spence Bridge provides an interstate connection over the Ohio River and carries both I-71 and I-75 traffic. The bridge also facilitates local travel by providing access to downtown Cincinnati, Ohio and Covington, Kentucky. Safety, congestion and geometric problems exist on the structure and its approaches. The Brent Spence Bridge, which opened to traffic in 1963, was designed to carry 80,000 vehicles per day. Currently, approximately 160,000 vehicles per day use the Brent Spence Bridge and traffic volumes are projected to increase to approximately 233,000 vehicles per day in 2035 under the No Build Alternative.

The I-75 corridor in the Greater Cincinnati/Northern Kentucky region, suffers from congestion and safety-related issues as a result of inadequate capacity to accommodate current traffic demand and geometric design deficiencies. The I-75 corridor is a major north-south transportation corridor through the Midwestern United States and one of the region's busiest trucking routes. A key link in the I-71/I-75 corridor is the Brent Spence Bridge. Traffic volumes have increased far beyond what was originally envisioned when the corridor was constructed in the 1950s and are anticipated to continue to increase. This increase in traffic volume has caused the I-75 corridor to be characterized as having poor levels of

service which threaten the overall efficiency of moving people and goods throughout the region.

The Brent Spence Bridge Replacement/Rehabilitation Project is being funded through federal and state sources. Funding for each phase subsequent to project planning (design, right-of-way acquisition, construction and maintenance) will use the appropriate Federal Fund Types with the eligible federal pro-rata share. This project will be subject to the Federal Highway Administration's (FHWA) Major Project requirements, which includes development of a Project Management Plan (PMP). The PMP will be prepared jointly by ODOT and KYTC. (Responsibility by state is defined geographically as approximately N39°05.516'/ W85°31.324'.)

1.3 Study Area

The overall project corridor is located along a 7.8-mile segment of I-75 within the Commonwealth of Kentucky (state line mile 186.7) and the State of Ohio (state line mile 2.7) (Exhibit 1). The southern limit of the project is 5,000 feet south of the midpoint of the Dixie Highway Interchange on I-71/I-75 in Fort Wright, south of Covington, Kentucky. The northern limit of the project is 1,500 feet north of the midpoint of the Western Hills Viaduct interchange on I-75 in Cincinnati, Ohio.

The eastern and western limits of the study area generally follow the existing alignment of I-75. From the south, the study area is a 1,500-foot wide corridor centered on I-71/I-75 northward towards the city of Covington. At Covington, the eastern and western study area boundaries widen and follow city streets as described below:

- Western project limits (from south to north):
    - At KY 5th Street in the city of Covington, the western boundary extends in the northwesterly direction across the Ohio River to US 50, approximately 1,000 feet west of the Freeman Avenue Interchange.
    - The western limit extends northerly parallel to Dalton Avenue to Hopkins Street.
    - The western limit extends westerly along Hopkins Street to the western limits of Union Terminal, where it then extends northerly along the western limits of Union Terminal to Kenner Street.
    - The western limit follows easterly along Kenner Street to the intersection with Dalton Avenue.
    - The western limit parallels Dalton Avenue to north of Findlay Street, where it follows in the northerly direction with a consistent 750-foot offset from the I-75 centerline.

- Eastern project limits (from south to north):
    - In the city of Covington, the eastern boundary follows Philadelphia Street to its intersection with KY 5th Street.
    - The eastern boundary follows KY 5th Street to its intersection with Main Street and then follows Main Street to the Ohio River.
    - The eastern boundary parallels the Clay Wade Bailey Bridge across the Ohio River to Pete Rose Way in the city of Cincinnati.
    - Through downtown Cincinnati, the eastern boundary follows OH 2nd Street and US 50 eastbound to approximately the I-71/US 50 Interchange over

Broadway Avenue, north on Broadway Avenue then westerly along OH 4th Street to Plum Street, then northward until it reaches West Court Street.

- From West Court Street, the eastern boundary extends west to Linn Street, where it follows Linn Street to Central Parkway.
- The eastern boundary extends north paralleling Central Parkway to Linn Street.
- From Linn Street, the eastern boundary extends westerly to Bank Street.
- From Bank Street, the eastern limits extend in the northerly direction with a consistent 750-foot offset from the I-75 centerline.

1.4 Purpose and Need

The Brent Spence Bridge Replacement/Rehabilitation Project will improve the operational characteristics within the I-75 corridor for both local and through traffic. In the Greater Cincinnati/Northern Kentucky region, the I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. The purpose of this project is to:

- improve traffic flow and level of service,
- improve safety,
- correct geometric deficiencies, and
- maintain connections to key regional and national transportation corridors.

The I-75 corridor is a major north-south transportation corridor through the Midwestern United States and one of the busiest freight movement (trucking) routes. Traffic volumes have increased far beyond what was originally envisioned when it was constructed in the 1950s. As a result, the I-75 corridor is characterized by poor levels of service which threaten the overall efficiency of the movement of people and goods within the region. The design features of I-71 and I-75 within the study area do not meet current standards for an interstate highway facility. A recent inventory of I-71 and I-75 within the study area, including the Brent Spence Bridge, reports numerous design deficiencies associated with lane widths, shoulder widths, left-hand exits, horizontal and vertical alignments, and horizontal and vertical clearances. The substandard design features, compounded by increasing traffic volumes, result in deteriorated operations while affecting the safety of motorists on the facility. Specific problems of I-71 and I-75 within the study area include, but are not limited to, growing demand for capacity, congestion, and design deficiencies.

The details of the purpose and need for the project are presented in the *Brent Spence Bridge Replacement/Rehabilitation Environmental Assessment* (2012).

2.0 DESCRIPTION OF SECTION 4(f) RESOURCES

The Brent Spence Bridge Replacement/Rehabilitation Project has the potential to result in the use of six Section 4(f) resources. Table 1 presents the Section 4(f) resources affected by the feasible alternatives, impacts and type of Section 4(f) determination proposed for each resource. This Draft Section 4(f) Evaluation has been prepared for the Lewisburg Historic District in Kentucky; Longworth Hall, and the West McMicken Avenue Historic District in Ohio. The Lewisburg Historic District and Longworth Hall are listed on the NRHP. The West McMicken Avenue Historic District was determined eligible for the NRHP in 2011. Exhibit 2 shows the locations of the three resources.

Table 1. Section 4(f) Resource Impacts

Resource	Alternative	Direct Impacts	Section 4(f) Evaluation Type
Goebel Park (14.8 acres)	No Build	None	*De Minimis*
	Alternative E	3.7 acres acquired Loss of basketball court, parking lot, and portion of walking trail	
	Alternative I	1.9 acres acquired Loss of basketball court and parking lot	
Lewisburg Historic District (Approximately 700 acres including 430 buildings)	No Build	None	Individual
	Alternative E	5.1 acres acquired Affects 53 contributing elements (38 fully acquired; 15 with partial acquisition).	
	Alternative I	2.1 acres acquired Affects 28 contributing elements (21 fully acquired; 7 with partial acquisition).	
Queensgate Playground and Ball Fields (5.26 acres)	No Build	None	*De Minimis*
	Alternative E	0.6 acres	
	Alternative I	0.9 acres	
Longworth Hall (1,160 feet in length, five stories tall)	No Build	None	Individual
	Alternative E	Demolition of 204 feet of the eastern section of the building.	
	Alternative I	Demolition of 204 feet of the eastern section of the building.	
West McMicken Avenue Historic District (consists of 21 buildings)	No Build	None	Individual
	SPUI Alternative	Demolition of 8 contributing buildings	
	TUDI Alternative	None	
Western Hills Viaduct	No Build	None	*De Minimis*
	Alternative E	Realign viaduct to intersect at the existing West McMillan Street/West McMicken Avenue intersection; and grade-separate the intersection of WHV and Central Parkway. Reconstruction of the viaduct structure from approximately 900 feet west of Spring Grove Avenue to just east of I-75.	
	Alternative I	Reconstruction of 1,108 feet of the viaduct eastern approach ramps to connect to I-75	

2.1 De Minimis Findings

FHWA-Kentucky Division has determined that the project with the KYTC committed mitigations will have a *de minimis* impact, as defined in 23 CFR 774.17, on Goebel Park. ODOT has stated their intent to request *de minimis* Section 4(f) findings for the Queensgate Playground and Ball Fields and the Western Hills Viaduct. A *de minimis* impact is defined in 23 CFR 774.17 as follows:

- For public parks recreational areas and wildlife and waterfowl refuges, a *de minimis* impact is one that would not adversely affect the features or attributes or activities that qualify a property for protection under Section 4(f).

- For historic and archaeological sites, a *de minimis* impact means that the Federal Highway Administration (FHWA) has determined, in accordance with 36 CFR 800, the project will have either "no effect" or "no adverse effect" on the site, and the SHPO concurs with the determination.

2.1.1 Goebel Park

Goebel Park is a public park owned by the city of Covington. The park is approximately 14.8 acres in size; recreational facilities include playground equipment, walking trails, shelter house, basketball and tennis courts, Olympic size pool, baby pool, bath house with showers and restrooms, and a parking lot.

Alternatives E and I would directly impact the western edge of Goebel Park through widening of I-71/I-75 and reconstruction of the interchange at KY 5th Street. Much of the affected area is unimproved parkland that is alternatively used during storm events to contain overflow from the Willow Run Sewer. A small portion of the area affected by either feasible alternative is used for recreational activities. Alternative E would impact 3.7 acres, or 25 percent, of the total park area. Alternative E would impact a parking lot, a basketball court, and a walking path. Alternative I would affect 1.9 acres, or 12.8 percent, of the total park area. Alternative I would not impact the walking path but would impact the parking lot and basketball court. A neighborhood pool, located in Goebel Park will not be directly impacted by either feasible alternative.

Due to concerns regarding current and proposed noise levels within Goebel Park, 24 hour noise levels were measured in August 2011 at three locations in the park. The readings were taken in early August when the pool was open to the public and in late August after the pool had been closed for the year, to determine if activities associated the pool contributed to the overall diurnal noise cycle. Noise levels when the pool was open were generally higher than when the pool was closed. However, measurements at the pool were above the FHWA noise criteria. A noise barrier was analyzed along Goebel Park in accordance with the KYTC noise abatement policy guidelines. Based upon the abatement analysis, a noise barrier does not meet the KYTC criteria for the area around the park. The complete *Brent Spence Bridge Replacement/ Rehabilitation Project Noise Study Report: Kentucky* (December 2011) can be found on the project website: www.brentspence bridgecorridor.com/studydocuments.html.

To mitigate the impact to Goebel Park from the project, KYTC will vacate 2.6 acres of land immediately adjacent to the park along KY 5th Street and transfer the land to the city of Covington for the purpose of mitigating the loss of parkland. Additionally, KYTC will reimburse the city of Covington $77,600 for the reconstruction of the basketball court and

associate resources. These funds will be used for the replacement and enhancement of the basketball courts or for other outdoor recreational facilities within Goebel Park.

Additionally, mitigation of impacts to the Goebel Park resource includes reduction of stormwater impacts on the area also used by Sanitation District 1 for the Willow Street stormwater overflow. The KYTC is working with Sanitation District 1 to develop a management plan that reduces stormwater runoff from I-71/I-75 onto Goebel Park property.

On July 19, 2011, the city of Covington submitted correspondence to the Department for Local Government, Office of Federal Grants requesting that land adjacent to Goebel Park along KY 5th Street owned by KYTC be transferred to the City to replace the 1.9 acres of Goebel Park impacted by the project. By letter dated November 28, 2011, the City documented its conclusion that the impacts of the project do not adversely affect the park and its agreement with a *de minimis* finding by FHWA. The city of Covington's letters are provided in Appendix A.

The city of Covington and the KYTC concurred in FHWA-Kentucky Division's *de minimis* determination by correspondence dated February 14, 2012. This concurrence letter is provided in Appendix A.

2.1.2 Queensgate Playground and Ball Fields

The Queensgate Playground and Ball Fields is a 5.3-acre public recreational area owned by the city of Cincinnati. On-site amenities include two adult ball fields and a neighborhood playground.

The Queensgate Playground and Ball Fields would be impacted by both feasible alternatives. Alternative E would require 0.6 acres and Alternative I would require 0.9 acres along the southwestern edge of the property adjacent to I-75. The impacts extend a maximum of 55 feet into the ball fields. A small walkway leading from Cutler Street into the park may be directly affected by the alternatives. The existing ball diamonds fall within the proposed right-of-way of either Alternative E or I.

To mitigate the impacts, the ball fields within the remaining park area will be reconfigured and reconstructed. Reconfiguration of the ball fields will result in the loss of mature shade trees located along West Court Street and displacement of two sections of an intra-park walkway, which meanders along the north and east perimeters of the park. Limited access right of way fence will be installed along the park and highway boundary. ODOT will compensate the city of Cincinnati for the land, relocation of recreational facilities, mitigation plans, and construction monitoring. A MOA between ODOT and the Cincinnati Recreation Commission was prepared to address impacts and mitigation commitments for the Queensgate Playground and Ball Fields.

In correspondence dated March 4, 2011, ODOT requested concurrence from the Cincinnati Recreation Commission that the project as proposed including mitigation, will not adversely affect the activities, features, and attributes that qualify the Queensgate Playground and Ball Fields for protection under Section 4(f). ODOT also stated their intent to request a *de minimis* Section 4(f) finding. The Cincinnati Recreation Commission concurred by signing the MOA on April 21, 2011. The MOA is provided in Appendix A.

2.1.3 Western Hills Viaduct

The WHV was built from 1931 to 1932 at a cost of $3.5 million. It was part of the Union Terminal redevelopment and was constructed to replace the outmoded Harrison Avenue Viaduct built in 1908. The eastern most section of the viaduct was demolished in 1960 during construction of I-75.

The bridge was rehabilitated in 1976-1978. The historic boundary for the WHV is the footprint of the bridge, including its piers; super and sub-structures; and roadway from Central Parkway on the east to just east of Beekman Street on the west. The WHV was determined eligible for inclusion in the NRHP under Criterion A for its association with the Union Terminal and its role in Cincinnati's transportation history.

The WHV would be affected by the SPUI alternative. The viaduct would be realigned to intersect West McMillan Street at the existing West McMillan Street/West McMicken Avenue intersection. This realignment also includes grade separating the intersection of WHV and Central Parkway. A new bridge would replace the existing WHV structure from approximately 900 feet west of Spring Grove Avenue to just east of I-75. An additional structure would be required to carry the WHV over Central Parkway. The WHV would be connected to Central Parkway by a new two-way Connector Road. The existing access between I-75 and the lower deck would be removed.

The WHV would be affected by the TUDI alternative through reconstruction of the interchange connecting I-75 to the viaduct. The TUDI would require reconstruction of 1,108 feet of the approach ramps of the WHV to connect with the interstate reconstruction at ground level. This will not result in any physical destruction or damage to the viaduct, but does constitute an alteration to the property as it currently exists.

The proposed alterations from the feasible alternatives would not have an adverse effect on the viaduct because they rework the connection to the bridge, which originally was built in 1960 with the construction of I-75. ODOT proposed a *No Adverse Effect* finding for the WHV in correspondence dated October 28, 2011. The Ohio State Historic Preservation Office (OHPO) concurred with the *No Adverse Effect* finding on October 31, 2011. A copy of the letter is included in Appendix A. ODOT has stated their intent to request a *de minimis* Section 4(f) finding for the WHV.

2.2 Individual Section 4(f) Evaluations

Three Section 4(f) resources would be adversely affected by the proposed project. These resources are the Lewisburg Historic District in Kentucky; and Longworth Hall, and the West McMicken Avenue Historic District in Ohio.

2.2.1 Lewisburg Historic District

The Lewisburg Historic District is roughly bounded by I-75 to the east and the Covington city limits. The district, just west of the I-71/I-75 corridor, includes 700 acres, 430 buildings, and 46 non-contributing buildings. Architecture in the district includes late nineteenth and early twentieth century revivals, Late Victorian, and Greek Revival styles. The majority of the buildings constructed in Lewisburg date from the Civil War through the end of the nineteenth century, with most built in the 1870s-1880s. Most of the buildings were built in the Italianate Style with some Victorian Gothic and Queen Anne examples. Vernacular worker housing also is scattered throughout the district.

The Lewisburg Historic District was added to the NRHP in 1993 under Criteria A and C for its significance of suburban growth in Covington from 1840 to 1947 and for its cohesive community of domestic, institutional, and commercial architecture.

Photograph 1: *View of West KY 12th Street, Within the Lewisburg Historic District, Facing East*

Photograph 2: *View of Baker Street, Within the Lewisburg Historic District, Facing South*

2.2.2 Longworth Hall (Baltimore & Ohio Railroad Freight Station and Storage Warehouse)

The Baltimore & Ohio Railroad Freight Station and Storage Warehouse, also known as Longworth Hall, is located at 700 Pete Rose Way in Cincinnati, Ohio and occupies 4.3 acres. The warehouse was designed by M.A. Long and constructed in 1904, to serve as the western terminus to the B&O Railroad. It was reported to be the largest structure if its type in the world at five stories high and 1,277 feet long. Camden Yards in Baltimore, Maryland is a similar structure at the eastern terminus of the railroad.

The building originally measured 1,277 feet in length, but in 1961 construction of I-71/75 resulted in the demolition of the easternmost 150 feet of the building for the piers supporting the approaches to the Brent Spence Bridge (I-71/75). Later, a five-story 30,000 square foot brick addition was built at the east end of the north façade of the original building. Part of the fifth floor was later destroyed by fire.

It was listed on the NRHP in 1986. The building is significant under Criterion A because it contributes to the understanding of freight movement by railroad during a period when this was an important mode of transportation. The resource is also significant under Criterion C as a unique example of functional railroad architecture embellished with Romanesque Revival details. It exhibits distinctive characteristics of the style and is further enhanced because of its exceptional length.

The structure is a large 1,160-foot long, five-story, common bond brick railroad freight storage building exhibiting details associated with the Romanesque style. The building has a concrete foundation and a flat roof and possesses a high degree of integrity, despite several changes to its exterior. The first story has rock-faced ashlar piers supporting columns rising to the fourth story, where decorative semi-circular arches adorn the façades. The warehouse is an important surviving example of an early 20th Century building associated

with a major railroad. The NRHP-listed property includes the former two-story brick building housing a boiler room and scales located at the northwest edge of the property.

The historic resource is bounded by I-71/I-75, Pete Rose Way (Second Street), Gest Street, and the parking area behind the building. The existing I-71/75 structure is within eight feet of the eastern end of Longworth Hall.

Photograph 3: *North Side of Longworth Hall, Looking South East*

Photograph 4: *East End of Longworth Hall Next to Southbound I-71-75, Looking North from Rose Street.*

2.2.3 West McMicken Avenue Historic District

The NRHP eligible West McMicken Avenue Historic District is 4.4 acres in size and consists of 21 contributing residential buildings. The district is located along West McMicken Avenue between West McMillan Street and the Brighton Bridge Approach. The district is a cohesive residential neighborhood sitting along a ridge above the Mill Creek Valley. The West McMicken Avenue Historic District includes one of the finest and most intact collections of historic residences in the Cincinnati Heights neighborhoods. The district contains good examples of several architectural styles, including Greek Revival, Second Empire, Victorian, Italianate, and American Foursquare. Highlights of the district include a landmark Second Empire residence, a Queen Ann rowhouse, and a Folk Victorian frame residence of eccentric design. Clearly distinguished from surrounding areas by topography, land use and architectural character, the district possesses a strong sense of place that is well preserved with few intrusions. The NRHP eligible district includes one non-contributing building located at 2351 West McMicken Avenue and one non-contributing structure, a billboard, at 2329 West McMicken Avenue.

The district was recommended as eligible for inclusion in the NRHP under Criterion C. On February 25, 2011, OHPO concurred with the recommendation and the following historic boundaries.

The historic boundaries begin at the western curb line of West McMicken Avenue south of the Warner Street steps and proceed east to the rear of the parcel boundary of 2364 West McMicken Avenue. The boundary proceeds south following the rear line of the parcels fronting West McMicken Avenue to a point at the southeast corner of the parcel boundary of 2342 West McMicken Avenue. The boundary then continues west to the western curb line of West McMicken Avenue and turns south along the road to a point on the southern parcel boundary of 2321 West McMicken Avenue. Turning west, the boundary proceeds to the

eastern curb line of Central Parkway, where it turns north, follows West McMillan Street to the northern parcel boundary of 2411 West McMicken Avenue. The boundary then turns east along said parcel to the western curb line of West McMicken Avenue, thence continuing south to the point of beginning.

3.0 ALTERNATIVES

Development of alternatives for the Brent Spence Bridge was initiated in 2003 and continued through 2011. A wide range of conceptual alternatives were developed and studied for replacement and/or rehabilitation of the Brent Spence Bridge structure and improvement to its approaches and surrounding transportation system. A series of alternatives were evaluated, eliminated and recommended for further study throughout the project development process (PDP). A discussion of the alternatives development process is provided in Appendix B.

Three alternatives are evaluated in the *Brent Spence Bridge Replacement/ Reconstruction Project Environmental Assessment* (2012), two Build Alternatives, Feasible Alternatives E and I (Exhibits 3 and 4) and the No Build Alternative (Avoidance Alternative). The two Build Alternatives were developed through an iterative process involving engineering, planning and environmental studies; evaluation against design criteria and costs; and review and comment by the public and stakeholders. Alternative I is recommended as the Preferred Alternative. This recommendation is based on the design features, local access features, traffic operations, estimated costs, and environmental impacts.

3.1 Alternative E

Alternative E utilizes the existing I-71/I-75 alignment from the southern project limits to the Kyles Lane Interchange. The Dixie Highway and Kyles Lane interchanges will be modified slightly to accommodate a collector-distributor (C-D) roadway, which will be constructed along both sides of I-71/I-75 between the two interchanges. North of the Kyles Lane Interchange, the alignment shifts to the west to accommodate additional I-71/I-75 travel lanes. Currently, between Kyles Lane and KY 12th Street there are four southbound lanes and three northbound lanes. Alternative I will provide six lanes in each direction for a total of 12 travel lanes.

Near KY 12th Street, the northbound alignment separates into two routes; one for interstate traffic and one for a local C-D roadway. Between Pike Street and KY 9th Street, the interstate separates into I-71 and I-75 only routes. The C-D roadway will carry local traffic northbound and provide access to Covington at KY 12th and 5th streets and access from KY 9th and 4th streets. The southbound C-D roadway will carry traffic from Ohio and cross over I-71 and I-75 and provide access to both the interstate and into Covington at KY 9th Street.

A portion of Crescent Avenue will be closed with a new connection to Bullock Street. Access from Covington for southbound interstate traffic is located at KY 12th Street. Bullock Street will be extended north from Pike Street to KY 9th, 5th, and 4th streets and Jillians Way will be extended north from Pike Street to KY 9th and 5th, and 4th streets. Bullock Street and Jillians Way will function as one way pair local frontage roadways.

A new double deck bridge, the new Ohio River Bridge, will be built just west of the existing Brent Spence Bridge to carry northbound and southbound I-71 and I-75 traffic. On the upper deck, I-71 southbound will have three lanes and I-71 northbound will have two lanes. On the

lower deck, I-75 will have three northbound and three southbound lanes. The width of the upper and lower decks will be the same on the new Ohio River Bridge. The existing Brent Spence Bridge will be rehabilitated to carry northbound and southbound local traffic with two lanes in the southbound direction and three lanes in the northbound direction, while maintaining the constant existing bridge width.

In Ohio, Alternative E reconfigures I-75 through the I-71/I-75/US 50 Interchange and eliminates some of the existing access points along I-75. Existing ramps to I-71, US 50 and downtown Cincinnati will be reconfigured. The existing direct connections between I-75 to westbound and from eastbound US 50 will be maintained in Alternative E. US 50 will be reconfigured to eliminate left-hand entrances and exits. The OH 5th Street overpass will be eliminated and the OH 6th Street Expressway will be reconfigured as a two-way, six-lane elevated roadway with a new signalized intersection for US 50 access and egress. Access between southbound I-71 (Fort Washington Way) and northbound I-75 will be provided near OH 9th Street as a direct connection. Both I-75 southbound and US 50 (OH 6th Street Expressway) will have access to northbound I-71 (Fort Washington Way).

A local C-D roadway will carry local traffic northbound from the existing Brent Spence Bridge and provide access to OH 2nd, 5th, and 9th streets, Winchell Avenue and access from OH 4th before reconnecting to I-75 just south of the Linn Street overpass. The northbound ramps from OH 6th and 9th streets to I-75 will be removed requiring traffic from these points to utilize a new local roadway parallel to I-75 connecting to Winchell Avenue and access the interstate at Bank Street. Southbound I-75 traffic will separate from the local C-D roadway near Ezzard Charles Drive. The southbound C-D roadway will carry traffic over I-75 to OH 7th Street, allowing traffic to either; access downtown at 7th Street, travel south to OH 5th and 2nd streets, or travel across the existing Brent Spence Bridge into Covington. Access to the local southbound C-D roadway will be provided at Western Avenue and at OH 4th and 8th streets.

Alternative E also improves Western and Winchell avenues to facilitate traffic flow and increase capacity. The ramps to Western Avenue and from Winchell Avenue just north of Ezzard Charles Drive will be removed. The ramp from Freeman Avenue to I-75 northbound and the ramp from I-75 southbound to Freeman Avenue will remain. Between Ezzard Charles Drive and WHV, southbound I-75 will have six lanes and northbound I-75 will have five lanes. Alternative E then proceeds northward to its convergence with the WHV Interchange (see Section 3.3).

3.2 Alternative I

Alternative I utilizes the existing I-71/I-75 alignment from the southern project limits to the Kyles Lane Interchange. The Dixie Highway and Kyles Lane interchanges will be modified slightly to accommodate a C-D roadway, which will be constructed along both sides of I-71/I-75 between the two interchanges. North of the Kyles Lane Interchange, the alignment shifts to the west to accommodate additional I-71/I-75 travel lanes. Between Kyles Lane and KY 12th Street, six lanes will be provided in each direction for a total of 12 travel lanes. Near KY 12th Street, the alignment northbound separates into three routes for I-71, I-75 and a local C-D roadway.

In Alternative I, access into Covington from the interstate will be provided by the local C-D roadway; at KY 12th Street for northbound traffic and at KY 5th and 9th streets for southbound traffic. Access from Covington for northbound traffic will be provided by a ramp located

between Pike Street and KY 9th Street from Jillians Way. The ramp will provide direct access to I-71 from Covington and provide access to I-75 northbound using the C-D roadway through downtown Cincinnati and connecting at the merge near Ezzard Charles Drive. Access from Covington will also be provided at KY 4th Street to the northbound C-D roadway. Access from Covington for southbound interstate traffic is located at KY 12th Street. Bullock Street will be extended north from Pike Street to KY 9th, and 4th streets and Jillians Way will be extended north from Pike Street to KY 9th and 5th streets. Bullock Street and Jillians Way will function as one way pair local frontage roadways.

A new double deck bridge will be built just west of the existing Brent Spence Bridge to carry northbound and southbound I-75 (three lanes in each direction), two lanes for southbound I-71 and three lanes for southbound local traffic. The width of the upper and lower decks will be the same on the new Ohio River Bridge. The existing Brent Spence Bridge will be rehabilitated to carry two lanes for northbound I-71 and three lanes for northbound local traffic, while maintaining the constant existing bridge width.

Alternative I reconfigures I-75 through the I-71/I-75/US 50 Interchange and eliminates all access to and from I-75 from KY 12th Street to the Freeman Avenue overpass in the northbound direction. Alternative I eliminates access to I-75 southbound between the Freeman Avenue exit and KY 9th Street. Alternative I also eliminates access from I-75 southbound between the US 50/6th Street overpass and Kyles Lane.

In Ohio, a local C-D roadway will be constructed along both sides of I-75. The local northbound C-D roadway will carry local traffic from the existing bridge and provide access ramps to OH 2nd Street, I-71 northbound, US 50 westbound, OH 5th Street, and Winchell Avenue before reconnecting to I-75 just south of Ezzard Charles Drive. The northbound ramps from OH 4th Street will utilize the new local northbound C-D roadway for access to I-75. The northbound ramps from OH 6th and 9th streets to I-75 will be removed requiring traffic from these two points to utilize a new local roadway parallel to I-75 connecting to Winchell Avenue and access the interstate at Bank Street. The southbound C-D roadway begins near the Ezzard Charles Drive overpass and carries both downtown Covington and Cincinnati traffic. The southbound C-D roadway will provide access to OH 7th, 5th and 2nd streets, as well as connecting to access ramps from Western Avenue, OH 9th Street, and US 50 eastbound. The C-D roadway will continue south over the new bridge into Covington.

Between Ezzard Charles Drive and the WHV, northbound I-75 will have five lanes and southbound I-75 will have six lanes, for a total of 11 travel lanes. The ramps to Western Avenue and from Winchell Avenue just north of Ezzard Charles Drive to the Interstate will be eliminated. The southbound ramp to Freeman Avenue and the northbound ramp from Freeman Avenue to I-75 will remain. Alternative I then proceeds northward to its convergence with the WHV Interchange (see Section 3.3).

3.3 Western Hills Viaduct Interchange

3.3.1 Interchange Alternative Development

The WHV is a multi level structure which spans across the Mill Creek Valley connecting I-75, Central Parkway, West McMillan Street, and Spring Grove Avenue on the east with Queen City Avenue, Harrison Avenue, and State Avenue on the west. The WHV carries local traffic between the west side of Cincinnati and downtown and provides connections to I-75 northbound and southbound from the west side of Cincinnati. Interstate and local traffic

movements are intermixed between the upper deck, which consists of four travel lanes, and the lower deck, which consists of three travel lanes.

The existing interchange is a full movement interchange to the west only with a left-hand exit. Southbound I-75 traffic exits to the lower deck and enters from the lower deck while northbound I-75 traffic exits to the upper deck and enters from the upper deck.

Throughout the project development process, several sub-alternatives were evaluated for the WHV Interchange. Three of these sub-alternatives were recommended for further study in the *Planning Study Report* (September 2006). These three sub-alternatives were an offset roundabout diamond, a single roundabout diamond, and a SPUI with an at-grade intersection with Central Parkway. All three sub-alternatives were dismissed from further study because analyses showed each concept did not have the capacity to handle the projected future traffic. A fourth alternative was considered, which connected Spring Grove to I-75 by adding a third level to the interchange under I-75. This full movement interchange was also dismissed after further investigation due to several operationally and geometrically fatal flaws consisting of inadequate interchange spacing with the Hopple Street Interchange to the north and inadequate local roadway capacity.

The primary conceptual design constraints of the WHV were:

- Incorporating the existing WHV multi-level configuration into the proposed design to avoid replacing the entire structure to the west.
- Number of existing travel lanes on both levels of the WHV.
- Limited storage capacity between the I-75/WHV Interchange and the intersection to the east with Central Parkway and West McMillan Street.
- Large traffic demand created when adding additional movements to make a full movement interchange.
- Close proximity between the existing WHV and Hopple Street interchanges precluded designs which required two lane entrance ramps or ramp braiding from WHV to the north.
- Topography of the general area, particularly to the east of I-75 restricted possible realignment of side roads and intersection locations.

A full movement SPUI alternative and a TUDI alternative with restricted access to and from the west were developed in 2010 and 2011 for the WHV Interchange. The two interchange alternatives were developed independently from the rest of the Brent Spence Bridge Replacement/Rehabilitation Project. This was done to achieve the best configuration for the WHV Interchange. The geometric layout of either interchange will work with Alternative E or Alternative I. For the purpose of delineating the configuration of the two feasible alternatives, the SPUI design is shown with Alternative E and the TUDI design is shown with Alternative I.

3.3.2 Single Point Urban Interchange (grade-separated with Central Parkway)

The SPUI alternative is a full movement interchange. A SPUI has a single intersection for all ramps located in the center of the interchange, versus a traditional diamond interchange which has two ramp intersections located to the right and to the left of the mainline.

Both northbound and southbound interstate traffic would have access to WHV eastbound and westbound. Local traffic from the east and from the west would also have access to both northbound and southbound I-75. Several of these movements are not provided by the

existing interchange. There is one existing movement that would not be provided by the SPUI. Westbound traffic on West McMillan Street would no longer have access to northbound Central Parkway because the left turn movement onto the Connector Road would be prohibited. This movement accounts for a very small number of vehicles. This movement would account for 10 vehicles in the AM peak period and 20 vehicles in the PM peak period. The design of the SPUI would accommodate pedestrians and bicyclists.

An earlier SPUI design was removed from consideration during Step 5 of the PDP. This original design did not provide the necessary storage at the Western Hills interchange with Central Parkway, and was therefore removed from consideration. The SPUI was later redesigned to its current configuration to bridge Central Parkway and loop back around, connecting to the east side of Central Parkway, thereby providing sufficient storage at the interchange of Western Hills and Central Parkway.

For the SPUI alternative, WHV was realigned to intersect West McMillan Street at the existing West McMillan Street/West McMicken Avenue intersection. This realignment also includes grade separating the intersection of WHV and Central Parkway. A new bridge would replace the existing WHV structure from approximately 900 feet west of Spring Grove Avenue to just east of I-75. An additional structure would be required to carry the WHV over Central Parkway. The WHV would be connected to Central Parkway by a new two-way Connector Road. The addition of this new road would provide storage between the WHV and Central Parkway necessary for acceptable traffic operations at this interchange. In several locations multi-lane turning movements would be required including one triple left turn movement from I-75 southbound to WHV eastbound.

On the upper deck of the WHV, traffic would be a mix of both local and interstate traffic. The lower deck connection to and from Spring Grove Avenue would remain; however, the existing access between I-75 and the lower deck would be removed. Pedestrian access on the south side of the upper deck would be maintained on the new structure with a connection to Central Parkway along the inside of the new Connector Road.

3.3.3 Tight Urban Diamond Interchange

The TUDI alternative is a full movement interchange to the west only. It has two ramp intersections like a traditional diamond but they are located much closer to the mainline. This configuration creates a smaller footprint than a traditional diamond interchange.

This alternative would replace the same movements provided in the existing interchange but removes the undesirable left-hand exit and splits the existing function of the WHV by separating the local traffic movements from the interstate traffic movements between the upper and lower decks. The local traffic movement between the west side of Cincinnati and downtown would be located on the upper deck of the WHV, while interstate traffic movements would be located on the realigned lower deck.

The TUDI would provide a replacement structure to the existing upper deck from just east of Spring Grove Avenue to the existing abutment. This replacement structure would connect to the existing upper deck of the WHV at Spring Grove Avenue. The lower deck structure would be realigned beginning west of the current I-75 southbound ramp diverge location. It would follow a new alignment which crosses Spring Grove Avenue and I-75 south of the WHV upper deck location. This new lower deck structure would be constructed along a new alignment to accommodate two lanes in each direction to carry WHV interstate traffic over I-75 to the lower deck of the WHV.

This new lower deck structure would provide the basis for the interchange, which would have the I-75 northbound and southbound ramps tying into it. Two lanes of traffic in each direction would be provided on the new I-75 interchange structure. The two lanes of traffic in the westbound direction would taper down utilizing pavement markings to one lane west of the interchange and would tie into the outside lane on the north side of the lower deck. The remaining two lanes on the lower deck of the WHV would be used to move eastbound traffic to the new I-75 interchange. This configuration requires reversing the direction of traffic in the center lane on the lower deck from the existing condition (westbound) to eastbound.

Realigning the lower deck removes the existing connection to and from Spring Grove Avenue. In order to restore this connection, two one-way connections are proposed. One connection replaces the movement from Spring Grove Avenue to the west and the other replaces the movement from the west to Spring Grove Avenue. Both connections utilize the footprint of the existing loop ramps, which would be removed as part of this interchange alternative. Pedestrian access to and from the upper deck would be provided along the inside of these two connections. The connection to carry traffic to the west would be located north of the interchange. This connection would have an intersection at Spring Grove Avenue, pass under I-75; and form a merge with the WHV to the east of I-75 closely following the alignment of the existing loop ramp. Similarly, in the eastbound direction, the connection would follow the alignment of the existing loop ramp for several hundred feet and then align to become the fourth leg of an intersection with Harrison Avenue and Winchell Avenue to the southeast of the new interchange.

3.4 Avoidance Alternatives

All of the conceptual alternatives and feasible alternatives developed for the Brent Spence Bridge Replacement/ Reconstruction Project would impact Section 4(f) resources (see the Conceptual Alternatives Evaluation Matrix located in Appendix B). Each alternative would directly impact both historic resources and public parks. Due to the densely developed urban environment of the study area, it was not possible to develop a build alternative that avoids impacts to Section 4(f) properties and satisfies the purpose and need of the project.

The only alternative that avoids Section 4(f) resources is the No Build Alternative. The No Build Alternative was retained as a baseline for evaluation of the Build Alternatives. The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. Because it does not meet the project purpose and need, the No Build is not considered to be a prudent and feasible alternative for the Brent Spence Bridge Replacement/ Rehabilitation Project.

3.4.1 Lewisburg Historic District

All of the alternatives developed for the Brent Spence Bridge Replacement/Rehabilitation Project would impact the Lewisburg Historic District. Because the district abuts I-71/I-75, impacts to the district could not be avoided throughout the development and design of the alternatives. Avoidance of this Section 4(f) resource was further complicated by the presence of another Section 4(f) resource on the east side of the interstate, Goebel Park, which is directly across from the historic district and also abuts the I-71/I-75 right of way.

3.4.2 Longworth Hall

Conceptual Alternative B developed in 2007 and 2008, is the only alternative that would avoid direct impacts to Longworth Hall. This alternative is unique from the other conceptual and feasible alternatives considered for this project because it follows a new alignment across the Ohio River and through the Queensgate area of Cincinnati. Conceptual Alternative B would be located within 37 feet of the west end of Longworth Hall. All other alternatives would have a direct impact to the east end of the building.

Even though Alternative B would not directly impact Longworth Hall, it would impact three other Section 4(f) resources located in Kentucky: Goebel Park; the residence at 632 Western Avenue in Covington, which is eligible for the NRHP; and the Lewisburg Historic District. Alternative B would encroach upon the western edge of Goebel Park and the eastern edge of the Lewisburg Historic District. Alternative B would also displace the NRHP eligible residence at 632 Western Avenue.

Further information about Conceptual Alternative B and reasons for eliminating from further consideration in the PDP is provided in Appendix B.

3.4.3 West McMicken Avenue Historic District

The West McMicken Avenue Historic District would be affected by the SPUI at the WHV. The TUDI was developed to avoid impacts to the West McMicken Avenue Historic District. A TUDI has two ramp intersections like a traditional diamond but they are located much closer to the mainline. This configuration creates a smaller footprint than a traditional diamond interchange. Therefore, it avoids impacts to the West McMicken Avenue Historic District.

4.0 SECTION 4(f) IMPACTS

Three alternatives are evaluated in the *Brent Spence Bridge Replacement/ Reconstruction Project Environmental Assessment* (2012), two Build Alternatives, Feasible Alternatives E and I (Exhibits 3 and 4) and the No Build Alternative. The two WHV Interchanges are also evaluated in the EA because the geometric layout of either interchange will work with Alternative E or Alternative I.

The No Build Alternative is retained as a baseline for evaluation of the feasible alternatives. The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations.

Both Alternatives E and I would result in the use of two Section 4(f) resources, the Lewisburg Historic District and Longworth Hall. The WHV SPUI would impact the NRHP eligible West McMicken Avenue Historic District while the WHV TUDI avoids these impacts. Only the No Build Alternative would avoid the use of any Section 4(f) resources. The effects of the project on Section 4(f) resources are summarized in Table 2 and discussed in the following sections.

Table 2. Effects on Section 4(f) Resources

Resource	Alternative	Direct Impacts
Lewisburg Historic District (Approximately 700 acres including 430 buildings)	No Build/Avoidance	None
	Alternative E	5.1 acres acquired Affects 53 contributing elements (38 fully acquired; 15 with partial acquisition).
	Alternative I	2.1 acres acquired Affects 28 contributing elements (21 fully acquired; 7 with partial acquisition).
Longworth Hall (1,160 feet in length, five stories tall)	No Build/Avoidance	None
	Alternative E	Demolition of 204 feet of the eastern section of the building.
	Alternative I	Demolition of 204 feet of the eastern section of the building.
West McMicken Avenue Historic District (consists of 21 buildings)	No Build/Avoidance	None
	WHV Single Point Urban Interchange	Demolition of 8 contributing buildings
	WHV Tight Urban Diamond Interchange	None

4.1 Lewisburg Historic District

The Lewisburg Historic District abuts the right-of-way for I-71/I-75 therefore impacts to the district could not be avoided throughout the development and design of the alternatives.

Alternative E would require the acquisition of 5.1 acres of land within the boundary of the Lewisburg Historic District. Land from 53 properties that are contributing elements to the historic district would be affected. A total of 38 parcels would be totally acquired with demolition of associated residential structures and land from 15 others would also be acquired for right-of-way without impact to any structures. Exhibit 5 shows Alternative E's impacts on the Lewisburg Historic District.

Alternative I would require the acquisition of 2.1 acres of land within the historic district boundary, affecting 28 of the 430 properties that are considered to be contributing elements to the Lewisburg Historic District. Twenty-one parcels would be acquired as total right-of-way acquisitions with demolition of structures; seven additional parcels would be affected through partial or strip-take right-of-way acquisition, which would not require taking of any buildings. Exhibit 6 shows Alternative I's impacts on the Lewisburg Historic District.

Additionally, the historic district would experience changes in access with both Alternatives E and I. Under Alternative E, 1,800 feet of Crescent Avenue would be eliminated that links the Lewisburg Historic District to the interstate system and the regional roadway network. Crescent Avenue would be realigned to connect to Bullock Street to the south. Access to the historic district would be provided by Bullock and KY 9th streets. Alternative access is available via Western Avenue which runs parallel to Crescent approximately 200 feet to the west. Under Alternative I, Lewis Street which provides access to the historic district would be closed at Pike Street. Access to the historic district would still be provided by Bullock and KY 9th streets as well as Crescent Avenue.

Noise levels within the Lewisburg Historic District were modeled using the FHWA Traffic Noise Model Version 2.5 (TNM) at 241 noise sensitive locations. Based upon the analysis, the existing ambient noise levels (2010) exceed the FHWA's noise abatement criteria (NAC) at 123 locations (51 percent). Under the No Build Alternative (2035), the NAC criteria would be exceeded at 138 locations (57 percent). Based upon Alternative E, the FHWA NAC criteria would be exceeded at 140 locations (63 percent) however, an additional 13 receptors would be acquired for implementation. For Alternative I, the FHWA NAC criteria would be exceeded at 152 locations (63 percent). Even though the existing and future noise levels exceed the FHWA NAC, the noise increases will not introduce audible elements that diminish the integrity of the historic district's significant historic features.

In accordance with FHWA noise policies, abatement must be considered for locations where traffic-related noise impacts would occur. For this project, noise barriers have been determined to be the only potentially effective noise abatement measure. KYTC has defined criteria for determining the feasibility and reasonableness of constructing a noise barrier. The determination of reasonableness of a proposed abatement measure is based upon three primary factors: the noise reduction design goal, acoustic feasibility, and cost effectiveness. For a noise barrier to be determined reasonable, all three factors must be achieved. Four noise barrier locations were analyzed for the Lewisburg Historic District, however, based upon KYTC policies, none of the proposed noise barriers met abatement criteria for acoustic feasibility and/or cost effective for either Alternative E or I. The complete *Brent Spence Bridge Replacement/Rehabilitation Project Noise Study Report: Kentucky* (December 2011) can be found on the project website:
www.brentspencebridgecorridor.com/studydocuments.html.

A MOA between the FHWA, KYTC and Kentucky Heritage Council (KHC) will be prepared to address the adverse effects to the Lewisburg Historic District resulting from the project.

4.2 Longworth Hall

Feasible Alternatives E and I would directly impact the eastern section of Longworth Hall. Both alternatives would pass through 204 feet of the eastern end of the building, requiring that three, 15-foot, two 13-foot, and six 12-foot bays of the building be demolished. This affected section of the building is the portion which was previously altered by reducing its length by 150 feet in 1961, to allow for the supporting piers of elevated I-71/I-75. A five-story 30,000 square foot brick addition was then built onto the northeast corner. Exhibits 7, 8 and 9 show the impacts to Longworth Hall from Alternatives E and I.

A MOA among the FHWA, ODOT, OHPO and other consulting parties was prepared to address the adverse effects to Longworth Hall resulting from the project. The MOA is provided in Appendix C.

4.3 West McMicken Avenue Historic District

The NRHP eligible West McMicken Avenue Historic District would be affected by the WHV SPUI alternative but would experience no adverse effects from the TUDI alternative. This interchange alternative would require construction of a connector road between the Central Parkway and the WHV. This would result in the demolition of eight of the 21 residences that are contributing elements to the historic district. Exhibit 10 shows the SPUI impacts on the

West McMicken Avenue District. The TUDI alternative would not directly impact the West McMicken Avenue Historic District (Exhibit 11).

Noise levels at modeled receiver sites in the West McMicken Avenue Historic District indicate that current (2010) ambient noise levels range between 54.3 and 70.1 dB(A). For the remaining (those not acquired as a result of the alternative) receiver sites under the Future (2035) noise levels for Alternative E would range between 64.4 dB(A) and 71.7 in the AM peak hour and 65.1 and 72.1 dB(A) in the PM peak hour. As a result of Alternative E, noise in 2035 would approach or exceed NAC at seven of nine modeled receiver locations. The noise increases would not introduce audible elements that diminish the integrity of the historic district's significant historic features.

Future noise levels for Alternative I would range between 63.2 and 70.9 dB(A) during the AM and 63.2 and 71.6 dB(A) during the PM Peak Hour periods. As a result of Alternative I, noise in 2035 would approach or exceed NAC at 10 of 14 modeled receiver locations. The noise increases would not introduce audible elements that diminish the integrity of the historic district's significant historic features.

A noise wall is not recommended at the West McMicken Avenue Historic District because it would not be considered reasonable according to ODOT's noise policies. The complete *Brent Spence Bridge Replacement/Rehabilitation Project Noise Study Report: Ohio* (December 2011) can be found on the project website: www.brentspence bridgecorridor.com/ studydocuments.html.

5.0 MEASURES TO MINIMIZE HARM TO SECTION 4(f) RESOURCES

Since there were no feasible or prudent avoidance alternatives for the Brent Spence Bridge Replacement/Rehabilitation Project, measures to minimize impacts and potential mitigation for impacts were examined throughout the project development process as required under 23 CFR 774.17. Where possible, measures to minimize harm to resources were incorporated into the design of the alternatives. The following sections describe the measures taken to minimize impacts on Section 4(f) resources for Alternatives E and I.

5.1 Measures to Minimize Harm During Design

5.1.1 Lewisburg Historic District

The Lewisburg Historic District is in very close proximity to I-71/I-75, therefore impacts to the district could not be avoided throughout the development and design of the alternatives. Avoidance of this Section 4(f) resource was further complicated by the presence of another Section 4(f) resource on the opposite side of the interstate, Goebel Park, which also abuts the I-71/I-75 right of way. Goebel Park is located directly across from the Lewisburg Historic District.

Alternative E requires a wider right-of-way than Alternative I through Covington, Kentucky due to the 12 proposed travel lanes, ramps from I-71 and I-75, and a collector-distributor (C-D) roadway system. Near KY 12th Street, the northbound alignment separates into two routes; one for interstate traffic and one for a local C-D roadway. Between Pike Street and

KY 9th Street, the interstate separates into I-71 and I-75 only routes. The C-D roadway will carry local traffic northbound and provide access to Covington at KY 12th and 5th streets and access from KY 9th and 4th streets. The southbound C-D roadway will carry traffic from Ohio and cross over I-71 and I-75 and provide access to both the interstate and into Covington at KY 9th Street.

The design of Alternative I limited impacts to the historic district as much as possible. For example, ramp access from the interstate system was configured in a manner to reduce impacts to the district by combining geometric connections which required less property impacts. Improvements to Pike Street were also redesigned to avoid impacts to historic properties on the south side of the street. Retaining walls along I-71/75 adjacent to the Lewisburg Historic District will further reduce the amount of right of way required from the district. Retaining walls will also allow Crescent Avenue to remain open to provide access to the district.

The Access Point Study conducted in 2010, determined that improvements were needed on Pike Street in Covington to accommodate future traffic volumes under Alternative I. The improvements to Pike Street include widening and adding turn lanes west of Jillians Way under I-71/I-75 and widening and realigning Pike Street through the intersection with Jillians Way continuing eastward eventually tapering into the current design of Pike Street east of Philadelphia Street. The improvements to Pike Street east of Jillians Way resulted in impacts to two additional historic properties adjacent to the south side of Pike Street: KECL 817 Boehmer Decorating Company, 533-535 Pike Street and the adjacent KECL 864 C&C Mortuary Service, 511-519 Pike Street. Both properties are eligible for listing in the NRHP. To avoid impacts to these two historic properties, the design of the Pike Street improvements was revised. Six lanes are proposed between Bullock Street and Jillians Way under I-71/I-75 for Pike Street, which include four turn lanes and two through lanes. There will be one through lane on Pike Street which passes under I-71/I-75 east crossing Jillians Way. This merge shifts eight feet north through the intersection with Jillians Way and realigns with existing Pike Street east of the intersection. The southern existing curb line of Pike Street will remain in place. These design changes reduced the width of right of way needed for Pike Street improvements east of Jillians Way, which avoided impacts to KECL 817 Boehmer Decorating Company, 533-535 Pike Street and to KECL 864 C&C Mortuary Service, 511-519 Pike Street.

5.1.2 Longworth Hall

Impacts to Longworth Hall could not be avoided throughout the development and design of the feasible alternatives. Therefore, measures were taken to minimize direct impacts to Longworth Hall. For both Alternatives E and I, the alignments were shifted to the east as much as possible. This resulted in the need for a design exception for the ramp from I-71 southbound/US 50 westbound to the southbound collector-distributor roadway. This ramp was designed for a speed of 35 miles per hour (mph), which does not meet the minimum design standard of 45 mph, therefore requiring a design exception. In order to avoid the design exception and use a flatter curve radius, the ramp would have extended farther to the west. This would have resulted in an additional 30 feet of impact to Longworth Hall.

Additionally, the southbound C-D roadway and the ramp from US 50 eastbound were designed to connect into the ramp from I-71 southbound/US 50 westbound to the southbound collector-distributor roadway alignment as soon as possible so that the acceleration lanes could be tied into the lower deck of the new Ohio River Bridge. This

design provided narrow right of way limits for the alternatives, which further reduced impacts to Longworth Hall.

5.1.3 West McMicken Avenue Historic District

The West McMicken Avenue Historic District would be affected by the SPUI at the WHV. The TUDI was developed to avoid impacts to the West McMicken Avenue Historic District. A TUDI has two ramp intersections like a traditional diamond but they are located much closer the mainline. This configuration creates a smaller footprint than a traditional diamond interchange. Therefore, it avoids impacts to the West McMicken Avenue Historic District (Exhibit 11).

5.2 Mitigation Measures

To mitigate the unavoidable impacts to Section 4(f) resources resulting from Alternative I, the recommended preferred alternative, measures to minimize harm/mitigate are being jointly developed between FHWA, ODOT, KYTC, FHWA, OHPO, KHC, city of Covington and consulting parties. MOAs will be prepared for adverse affects by the project to the Lewisburg Historic District and Longworth Hall. The following sections present potential mitigation measures for the Section 4(f) resources.

5.2.1 Lewisburg Historic District

KYTC, FHWA, and consulting parties have been working together to develop mitigation measures for the Lewisburg Historic District. Mitigation measures for the Lewisburg Historic District include:

- Completion of photographic documentation of buildings to be demolished.
- Completion of Kentucky Individual Buildings Survey Forms for contributing resources within the Lewisburg Historic District (430 contributing buildings are listed in the National Register of Historic Places (NRHP) nomination).
- Revision of the 1993 NRHP nomination form to include contributing buildings that were not yet 50 years old at the date of nomination and to note which buildings are no longer extant due to recent residential development in the area.
- Creation of a Historic Preservation Plan for Lewisburg to preserve the history of the district.
- A Façade Grant Program: This program will be developed and implemented to improve and rehabilitate the façades of homes and businesses within the Lewisburg Historic District. This program will be funded by FHWA and administered by the city of Covington. This program will require matching funds by property owners. Specific details of the program, including additional funding sources, review authority, and timeframes for approval and completion of projects will be determined through consultation between FHWA, KYTC, and the city of Covington.
- Vibration Testing During Construction: KYTC will monitor a number of historic resources within the Lewisburg Historic District to determine the effects of construction vibration. Construction plans will include provisions for pre-and post-construction surveys, installation of vibration monitoring devices and visual inspection during construction. As appropriate, KYTC will observe the vibration monitors and make determinations as to whether vibration from construction activities could damage the resources. If vibration damage occurs to historic resources, repairs will be coordinated in advance with KHC to ensure they are

carried out in accordance with the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.*

Additional coordination will be undertaken with the KHC and other Section 106 consulting parties to further develop and define mitigation measures for the Lewisburg Historic District. These measures will be specified in a Section 106 MOA to be developed for this project.

5.2.2 Longworth Hall

ODOT and FHWA propose the following mitigation measures for Longworth Hall. These measures are based on recommendations provided by consulting parties:

- Masonry repair, which will include repair or replacement of bricks as warranted; tuck-pointing; and brick cleaning of the west, north and south walls.
- Installation of exterior storm windows.
- Restoration of the east wall, to an approximation of its original appearance. This will include materials salvaged during demolition in accordance with the Secretary of Interior's Standards
  - Plans will be developed for review and comment by the building owner, Cincinnati Preservation Association and OHPO.
  - Windows removed to accommodate the new roadway construction, will be restored and used in the east wall reconstruction.
  - Windows removed and not used in the east wall reconstruction will be restored and returned to the owner.
  - A cornerstone commemorating the date of construction (1904) on one side and the date of the renovation on the other side will be included in the east wall reconstruction design.
- Plaque/Interpretive signage will be constructed:
  - The original location of the east wall prior to construction of the Brent Spence Bridge will be outlined by bricks and stone work.
  - An interpretive plaque describing changes to the property that have occurred over time will be placed near the original location of the east end wall.
- The original lettering across the top of the building will be refurbished.
- All materials removed that retain historic integrity and nature will be returned to the building owner to be reused in future repairs or future expansion.
- ODOT will have follow up discussions with the owner regarding contracting methods and their request to either perform the construction themselves or provide project management control. If ODOT concurs in this approach, details will be outlined in a separate agreement.

5.2.3 West McMicken Avenue Historic District

The West McMicken Avenue Historic District would be affected by the WHV SPUI. Selection of the TUDI as the preferred interchange alternative will avoid impacts to the historic district.

6.0 COORDINATION

Coordination for Section 4(f) resources was initiated at the beginning of the project development process. Section 106 of 36 CFR Part 800 of the National Historic Preservation Act requires that those parties eligible to participate as consulting parties in the historic preservation review process be identified. The Section 106 process requires the coordination of findings of the Section 106 investigations with the KHC and OHPO as well as other defined consulting parties. In 2006 individuals and organizations with interests in the affected communities and historic preservation were invited to participate as consulting parties. Consulting party application forms were also provided at the public meetings held for the project in 2006. Table 3 provides a list of local, state, and federal consulting parties for the Brent Spence Bridge Replacement/ Rehabilitation Project.

Table 3. Consulting Parties

Consulting Party	Ohio	Kentucky
Local Agencies	Cincinnati Historic Conservation Office Cincinnati Preservation Association Historic Southwest Ohio, Inc. - Hauck House Dayton Street Historic District Association Lower Price Hill Community Council Price Hill Civic Club West End Community Council Cincinnati Metropolitan Housing Authority Community Revitalization Agency Cincinnati Park Board	City of Covington – Mayor City of Covington – Historic Preservation Officer City of Covington – Assistant City Engineer
Local Community Groups	Cincinnati Museum Center	Lewisburg Neighborhood Association Covington Neighborhood Services Coordination Kenton Hills Botany Hills Home Owners Association Botany Hills Neighborhood (West Covington)
State Agencies	Ohio Department of Transportation Ohio Historic Preservation Office	Kentucky Transportation Cabinet Kentucky Heritage Council
Federal Agencies	FHWA, Urban Programs Engineer	FHWA, Kentucky Division
Citizens	Jenny Edwards Michael Schweitzer	None

Section 106 consulting party coordination included written correspondence as well as meetings and site visits with consulting parties, which resulted in concurrence of a defined Area of Potential Effect (APE), impacts to cultural resources, and potential mitigation measures. The following sections present a summary of Section 106 coordination throughout the PDP.

6.1.1 2006 Activities

The first public involvement meetings for the Brent Spence Bridge Replacement/ Rehabilitation Project were held on May 2 and 4, 2006. These public meetings represented Concurrence Point #1 and were held to present work completed in Steps 1 through 4 of the PDP. These meetings were also the first Section 106 public meetings. The meeting advertisement specifically requested that citizens provide information about historic and archaeological resources within the study area. Exhibits showing the locations of documented cultural resources within the study area were displayed at the meetings and posted on the project website. Consulting party application forms were also provided at the public meetings and on the project website.

Meetings with consulting parties in Ohio were held on August 10 and November 16, 2006. Meetings with consulting parties in Kentucky were held on August 30 and November 29, 2006.

6.1.2 2007 Activities

Consulting party coordination in 2007 focused on the results of the historic architecture surveys completed in Kentucky and Ohio within the study area. Determination of eligibility recommendations by the Project Team were presented in separate historic architecture survey reports for Kentucky and Ohio properties. These reports were submitted to KHC and OHPO for review and concurrence. There were further discussions/meetings between KYTC, ODOT, KHC, and OHPO regarding the APE, viewshed APE and consulting party coordination.

The *Phase I History/Architecture Survey Report: Hamilton County, Ohio* (June 2007) was circulated to Ohio consulting parties in August 2007. The *History/Architecture Survey Report: Kenton County, Kentucky* (June 2007) was circulated to Kentucky consulting parties in November 2007. Only two consulting parties provided comments on the report.

6.1.3 2008 Activities

Phase II historic architecture surveys were conducted for Ohio resources and reports prepared in 2008. There were further discussions/meetings between ODOT and OHPO regarding eligibility determinations and impacts to historic resources held on October 30 and November 6, 2008.

The *History/Architecture Survey Report: Kenton County, Kentucky* was revised in accordance with agency and consulting party comments in November 2008.

6.1.4 2009 Activities

The second public involvement meetings for the Brent Spence Bridge Replacement/ Rehabilitation Project were held on May 6 and 7, 2009. These public meetings represented Concurrence Point #2 and were held to present work completed through Step 5 of the PDP. The meeting advertisement and handout specifically requested that citizens provide information about cultural resources within the study area. Exhibits showing the locations of documented cultural resources from the historic architecture surveys within the APE were displayed at the meetings and posted on the project website. Consulting party application forms were also provided at the public meetings and on the project website.

The *Phase II History/Architecture Survey Report: Hamilton County, Ohio* (December 2008) was submitted to OHPO for review and concurrence in January 2009. This report was

circulated to consulting parties in June 2009. An *Addendum Phase II History/Architecture Survey Report: Hamilton County, Ohio* (September 2009) was submitted to OHPO for review and concurrence in September 2009. This addendum report was circulated to Ohio consulting parties in October 2009.

KHC provided comments on the revised *History/Architecture Survey Report: Kenton County, Kentucky* (November 2008) in May 2009. The study area in Kentucky was extended south to Dixie Highway Interchange and a historic architecture survey was conducted in this new area in August 2009. The *History/Architecture Survey Report: Kenton County, Kentucky* was revised to include the results of the survey in the extended study area in November 2009.

6.1.5 2010 Activities

The study area in Ohio in the vicinity of the WHV was widened and a historic architecture survey was conducted in this expanded portion of the APE in March 2010. The *Addendum Phase I History/Architecture Survey Report for the Western Hills Viaduct* (July 2010) was submitted to OHPO for review in August 2010. This report was distributed to Ohio consulting parties in September 2010.

ODOT, OHPO, and FHWA met on July 15, 2010 to discuss impacts to Longworth Hall and the Harriet Beecher Stowe School. Information about the impacts to these resources was sent to Ohio consulting parties for comment and posted on the project website. A consulting parties meeting was held on October 7, 2010 to discuss impacts to Longworth Hall and the Harriet Beecher Stowe School and possible mitigation measures.

KYTC, the city of Covington, and FHWA held meetings to discuss impacts to the Lewisburg Historic District on April 1 and June 28, 2010.

The *History/Architecture Survey Report: Kenton County, Kentucky* (April 2010) was reviewed by FHWA and KHC in May and June 2010. KHC concurred with the report findings in July 2010. This report was distributed to consulting parties in September 2010. A Kentucky consulting parties meeting was held on October 15, 2010 to discuss impacts to the Lewisburg Historic District and possible mitigation measures.

6.1.6 2011 Activities

The *Phase I History/Architecture Survey Addendum Report for the Western Hills Viaduct Interchange* (November 2010) was submitted to OHPO for review and concurrence in January 2011. The OHPO concurred with the findings of the report on February 25, 2011. OHPO's concurrence letter was circulated to Ohio consulting parties in March 2011.

The *Determination of Effects Report* (February 2011) was submitted to KHC for review in April 2011. This report was revised in accordance with KHC comments and resubmitted to KHC in June 2011. The *Determination of Effects Report* (June 2011) was also submitted to OHPO and FHWA for review and concurrence in June 2011 and July 2011, respectively. KHC concurred with the findings of the report on August 12, 2011.

ODOT notified the Advisory Council on Historic Preservation (ACHP) of the adverse effects of the project on Longworth Hall and the Lewisburg Historic District in August 2011. ODOT submitted to ACHP the draft MOA between ODOT, FHWA and OHPO, the *Determination of Effects Report* (June 2011), and the *Longworth Hall Impact Analysis Report – Part Three:*

Potential Mitigation Measures (June 2011). ACHP reviewed this documentation and notified ODOT that their participation in the consultation to resolve adverse effects of the project was not warranted. ODOT distributed the ACHP correspondence, draft MOA concerning adverse effects to Longworth Hall, *Determination of Effects Report* (June 2011), and *Longworth Hall Impact Analysis Report – Part Three: Potential Mitigation Measures* (June 2011) to Ohio consulting parties in August 2011.

The *Phase I Intensive Archaeological Survey - Kenton County, Kentucky* (April 2011) was submitted to KHC for review in April 2011. This report was revised in accordance with KHC comments and resubmitted to FHWA and KHC in May 2011. FHWA provided conditional clearance of the Phase I archaeological survey on July 15, 2011. Additional archaeological surveys were completed at the request of KHC within the APE and documented in the *Phase I Intensive Archaeological Survey - Kenton County, Kentucky* (September 2011). KHC concurred with the survey results and report findings on September 22, 2011.

In correspondence dated October 28, 2011, ODOT notified OHPO of FHWA's determination that the Brent Spence Bridge Replacement/ Rehabilitation Project will have an *Adverse Effect* on Longworth Hall. OHPO concurred with the *Adverse Effect* determination on October 31, 2011. A copy of the letter is included in Appendices A and C.

An Ohio consulting parties meeting was held on November 2, 2011 to discuss impacts to Longworth Hall and proposed mitigation measures. The details of the measures, their advantages and disadvantages, and estimated costs were discussed. Following the Ohio consulting parties meeting, OHPO prepared a prioritized list of proposed mitigation measures for Longworth Hall. This list was submitted to ODOT in correspondence dated November 21, 2011. A copy of this letter is included in Appendix C.

A second meeting was held with the Ohio consulting parties on December 8, 2011 to further discuss impacts and mitigation for Longworth Hall. An MOA among the FHWA, ODOT, OHPO and other consulting parties was prepared to address the adverse effects to Longworth Hall resulting from the project. Mitigation measures for Longworth Hall are presented in the MOA provided in Appendix C.

KYTC distributed the *Determination of Effects Report* (June 2011) to Kentucky consulting parties in November 2011. A Kentucky consulting parties meeting was held on November 16, 2011 to discuss impacts to the Lewisburg Historic District and proposed mitigation measures. KYTC led the discussion of mitigation of effects to the Lewisburg Historic District. The potential mitigation measures that were presented included the following:

- Photo documentation.
- Survey forms for the 430 contributing resources to the historic district.
- Revise the National Register of Historic Places (NRHP) nomination form to include building that were not yet 50 years old.
- Preservation plan to preserve the history of the district.
- Vegetative plan to replace screening removed by the project.

The following suggestions for mitigation measures were provided by the consulting parties:

- Façade grant pool for rehabilitation of buildings.

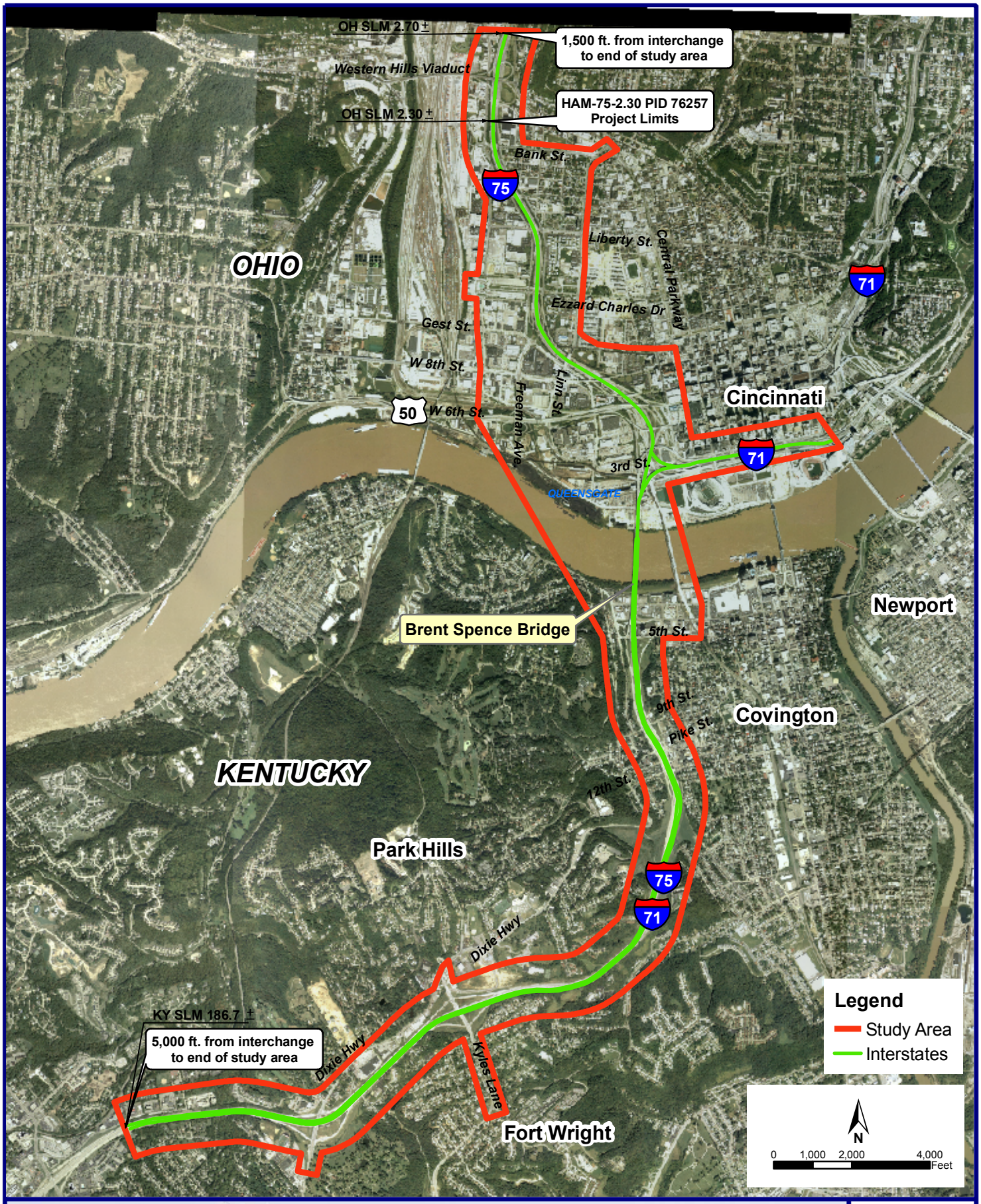
- Mitigation for the change in access to Devou Park and implementation of a gateway plan.
- Pedestrian and bicycle connections to Pike Street, Mainstrasse and Goebel Park.
- Enhanced vibration standards during construction.

The parties seemed in agreement with the benefits of the development of documentation, survey forms and updating of the NRHP nomination form. There was little support for a Preservation Plan that was not accompanied with funding for implementation. There was also comment that a vegetative plan may be more of a project commitment than historic mitigation.

The consulting parties generally seemed highly supportive of a façade grant pool. The city of Covington also suggested that access improvements into the neighborhood would help to promote future investment.

Representatives from FHWA, KYTC and KHC met on December 19, 2011, to discuss mitigation measures for impacts to the Lewisburg Historic District. KHC stated that they approved of the mitigation options presented at the November 16, 2011 consulting parties meeting. Other potential mitigation options were also discussed during the meeting. FHWA and KHC agreed that a Façade Program and vibration testing during construction are the options that would best mitigate actual impacts to the historic district.

Exhibits

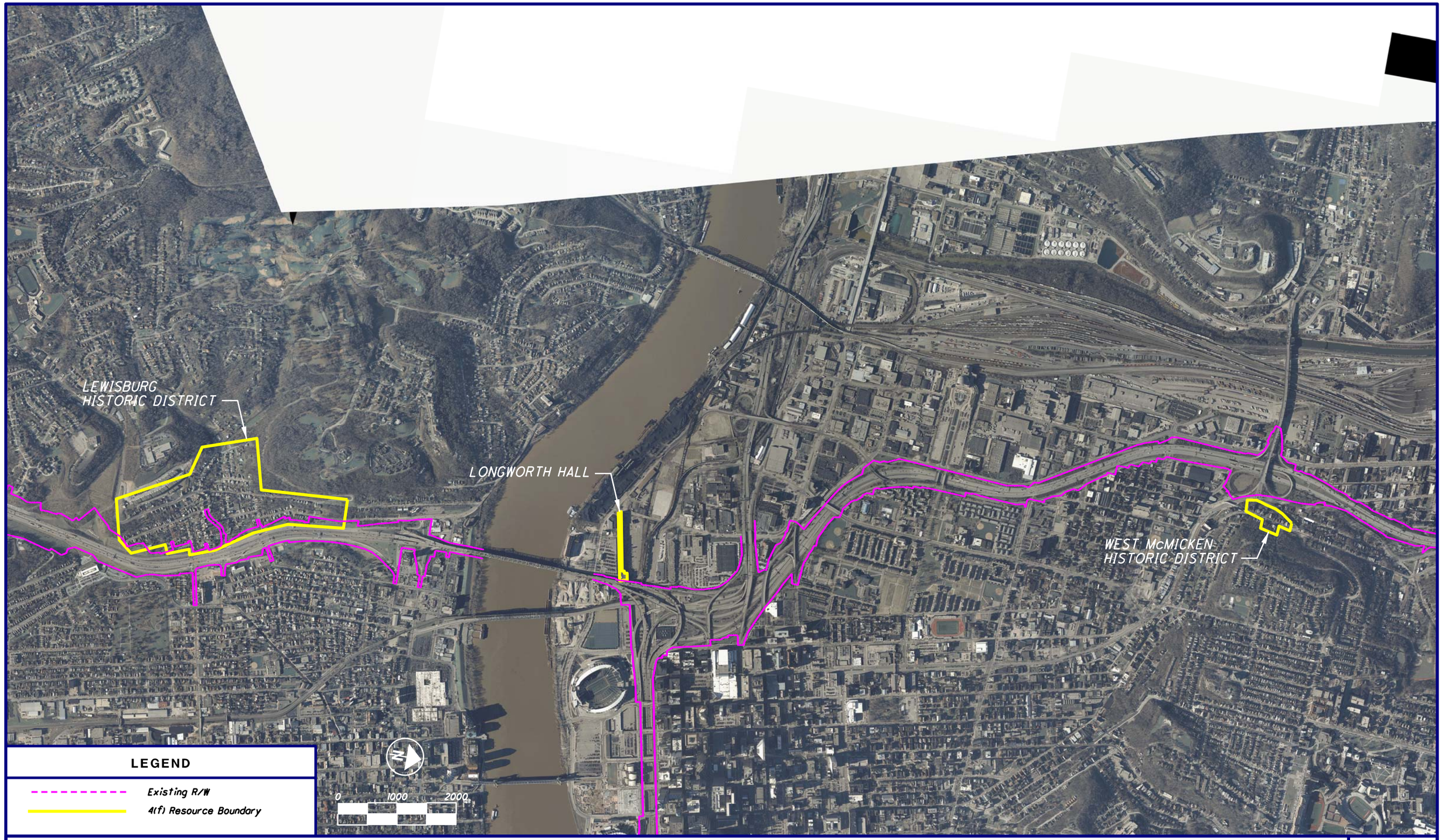


U.S. Department of Transportation
Federal Highway Administration

STUDY AREA

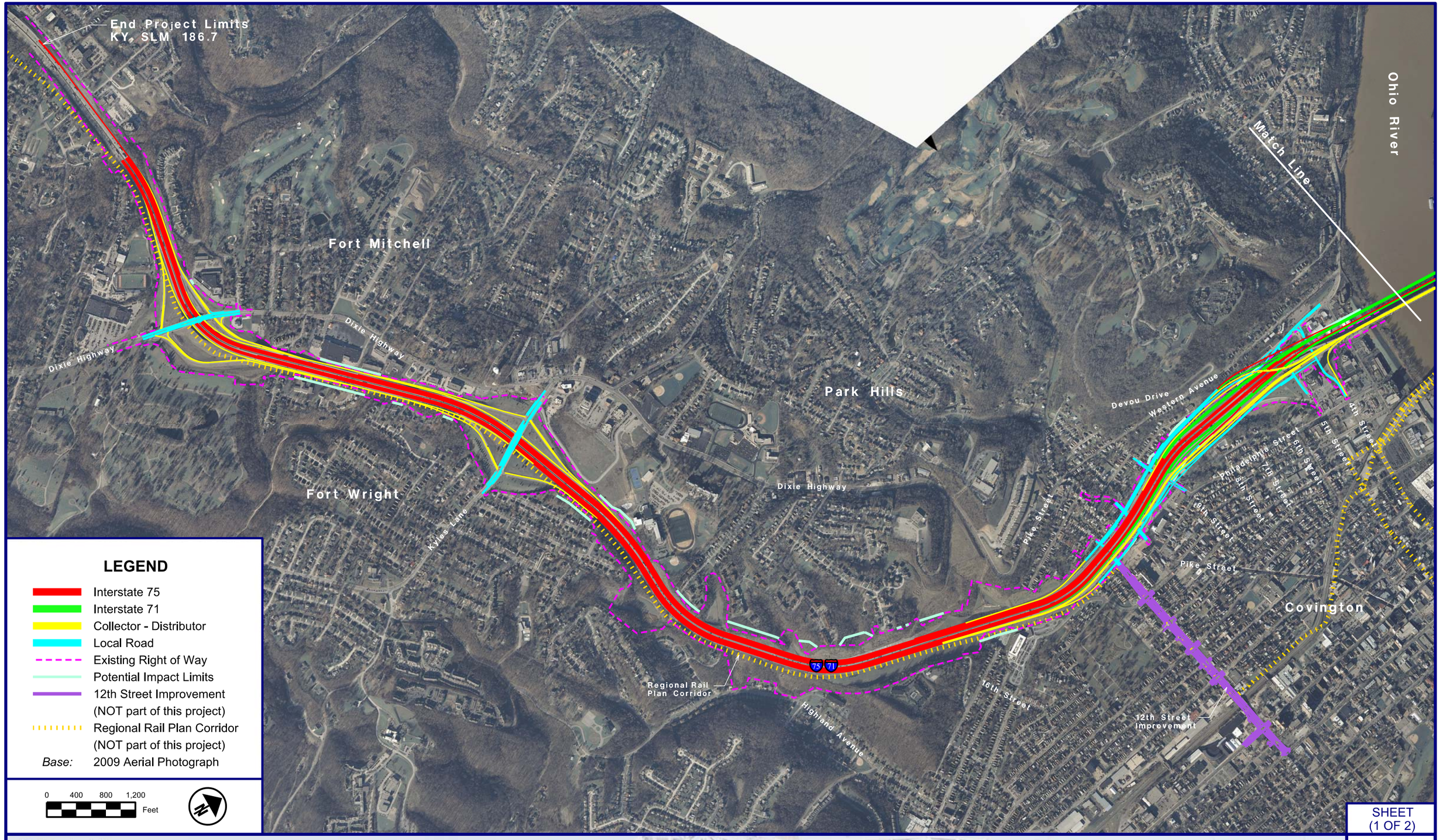
EXHIBIT 1

Prepared by:
PARSONS BRINCKERHOFF



SECTION 4(f) RESOURCES

EXHIBIT
2



LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- Local Road
- Existing Right of Way
- Potential Impact Limits
- 12th Street Improvement (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 400 800 1,200 Feet

U.S. Department of Transportation
Federal Highway Administration

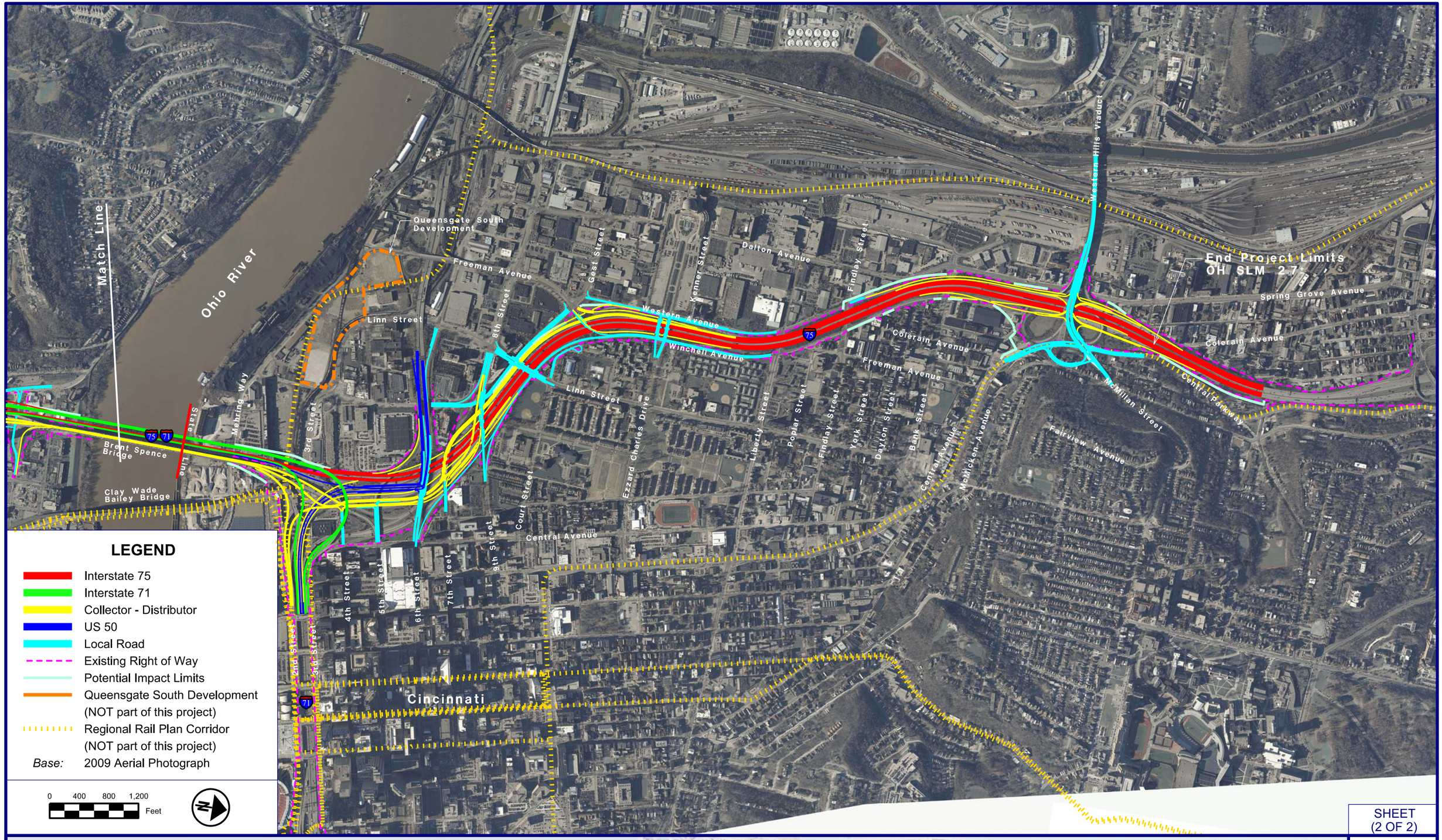
FEASIBLE ALTERNATIVE E (KENTUCKY)

SHEET (1 OF 2)

EXHIBIT

3A

Prepared by:
PARSONS BRINCKERHOFF



LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- US 50
- Local Road
- Existing Right of Way
- Potential Impact Limits
- Queensgate South Development (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 400 800 1,200 Feet

N

SHEET (2 OF 2)

U.S. Department of Transportation
Federal Highway Administration

FEASIBLE ALTERNATIVE E (OHIO)

EXHIBIT **3B**

Prepared by: PARSONS BRINCKERHOFF

LEGEND

- Existing Right of Way
- Potential Impact Limits
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 100 200 300 Feet

Devou Drive
Western Avenue
Lewis Street
Crescent Avenue
Pike Street
Hermes Avenue
12th Street
Bullock Street
71
75
Jillian's Way
Philadelphia Street
9th Street
8th Street
7th Street
6th Street
Bakewell Street
Pike Street

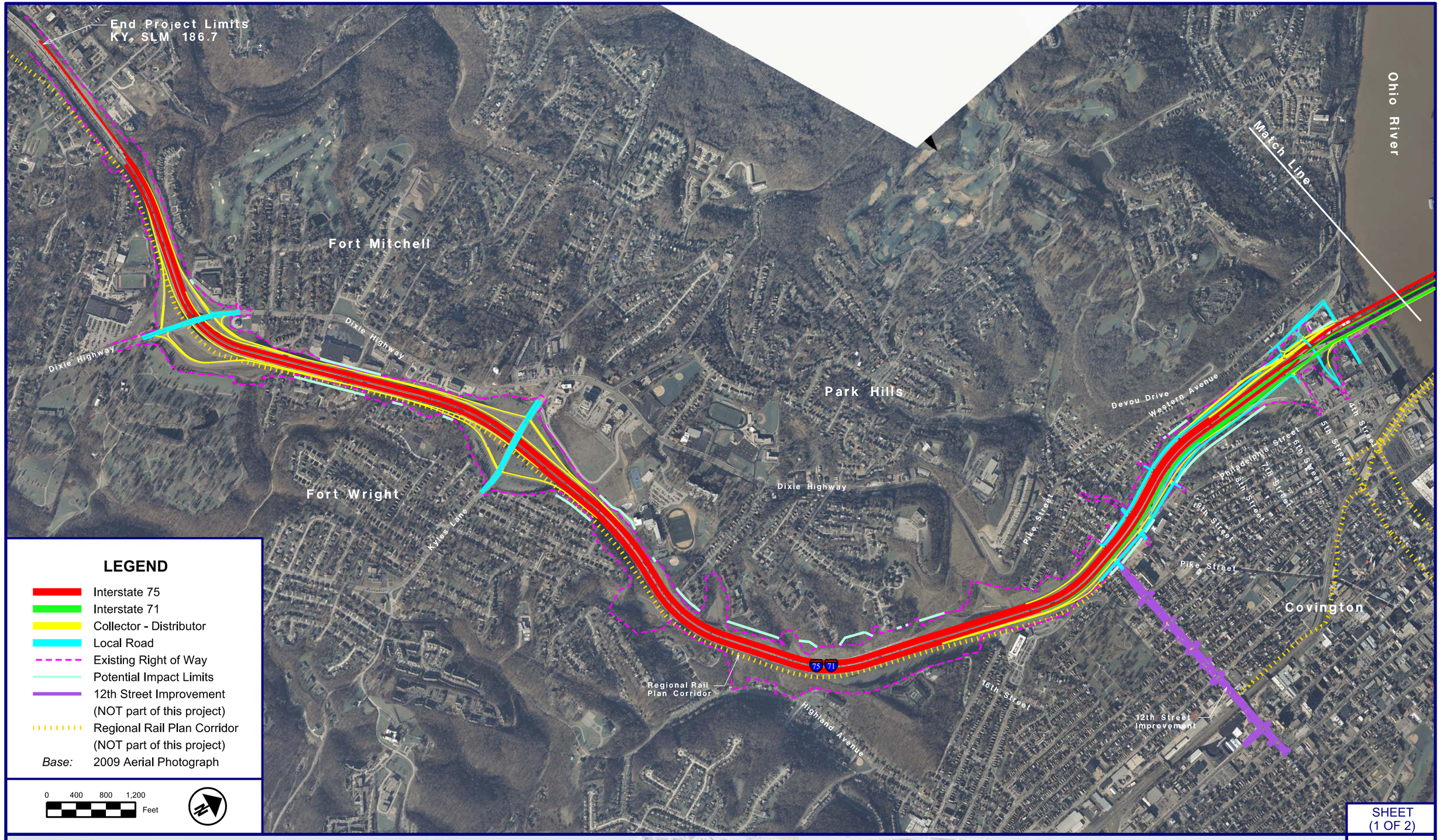
U.S. Department of Transportation
Federal Highway Administration

ALTERNATIVE E DETAIL (KENTUCKY)

SHEET (1 OF 1)

EXHIBIT 3C

Prepared by:
PB PARSONS BRINCKERHOFF



LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- Local Road
- Existing Right of Way
- Potential Impact Limits
- 12th Street Improvement (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 400 800 1,200 Feet

SHEET (1 OF 2)

U.S. Department of Transportation
Federal Highway Administration

FEASIBLE ALTERNATIVE I (KENTUCKY)

EXHIBIT

4A

Prepared by:
PARSONS BRINCKERHOFF

Match Line

Ohio River

Queensgate South Development

Freeman Avenue

Linn Street

8th Street

Geest Street

Kenner Street

Dalton Avenue

Findlay Street

Western Hills Viaduct

End Project Limits
OH SLM 2.7+

Spring Grove Avenue

Western Avenue

Winchell Avenue

Colerain Avenue

Freeman Avenue

Central Parkway

McMillan Street

Fairview Avenue

Brent Spence Bridge

Clay Wade Bailey Bridge

State Line

Mehring Way

3rd Street

Linn Street

Ezzard Charles Drive

Liberty Street

Poplar Street

Findlay Street

York Street

Dayton Street

Bank Street

Central Avenue

McMicken Avenue

Court Street

Central Avenue

4th Street

5th Street

6th Street

7th Street

9th Street

2nd Street

3rd Street

Cincinnati

LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- US 50
- Local Road
- Existing Right of Way
- Potential Impact Limits
- Queensgate South Development (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 400 800 1,200 Feet

N

SHEET (2 OF 2)

U.S. Department of Transportation
Federal Highway Administration

FEASIBLE ALTERNATIVE I (OHIO)

EXHIBIT

4B

Prepared by:
PARSONS BRINCKERHOFF

LEGEND

- Existing Right of Way
- Potential Impact Limits
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 100 200 300 Feet

U.S. Department of Transportation
Federal Highway Administration

ALTERNATIVE I DETAIL (KENTUCKY)

SHEET (1 OF 1)

EXHIBIT **4C**

Prepared by:
PARSONS BRINCKERHOFF

ALTERNATIVE E IMPACTS TO LEWISBURG HISTORIC DISTRICT

- 5.1 acres needed for Proposed Preliminary R/W
- Affects 53 contributing properties
  - 38 properties fully acquired with demolition of structure
  - 15 properties partially acquired

DEVOU DRIVE
WESTERN AVENUE
CRESCENT AVENUE
PIKE STREET
LEWIS STREET
HERMES AVENUE
12th STREET
11th STREET
BULLOCK STREET
JILLIAN'S WAY
9th STREET
PHILADELPHIA STREET

LEGEND

- Existing R/W
- Proposed Construction Limits
- Preliminary Engineering R/W
- Lewisburg Historic District

N

0 100 200 300

U.S. Department of Transportation
Federal Highway Administration

ALTERNATIVE E IMPACTS TO THE LEWISBURG HISTORIC DISTRICT

EXHIBIT
5

Prepared by:
PARSONS BRINCKERHOFF

ALTERNATIVE I IMPACTS TO LEWISBURG HISTORIC DISTRICT

- 2.1 acres needed for Proposed Preliminary R/W
- Affects 28 contributing properties
  - 21 properties fully acquired with demolition of structure
  - 7 properties partially acquired

DEVOU DRIVE
WESTERN AVENUE
PIKE STREET
LEWIS STREET
CRESCENT AVENUE
HERMES AVENUE
12th STREET
11th STREET
BULLOCK STREET
JILLIAN'S WAY
9TH STREET
PHILADELPHIA STREET

LEGEND

- Existing R/W
- Proposed Construction Limits
- Preliminary Engineering R/W
- Lewisburg Historic District
- Bavarian Brewery Boundary

N

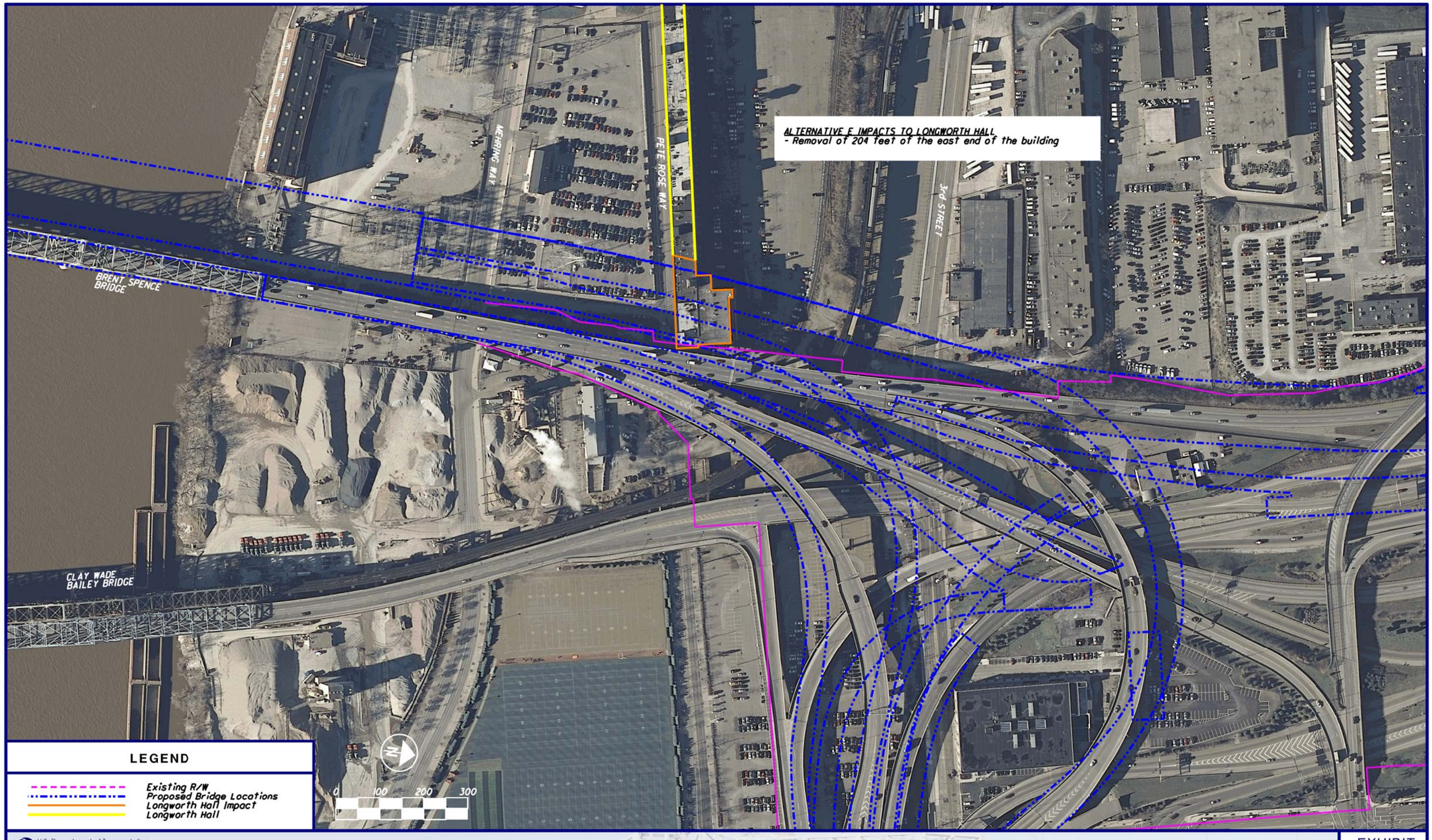
0 100 200 300

U.S. Department of Transportation
Federal Highway Administration

ALTERNATIVE I IMPACTS TO THE LEWISBURG HISTORIC DISTRICT

EXHIBIT
6

Prepared by:
PARSONS BRINCKERHOFF

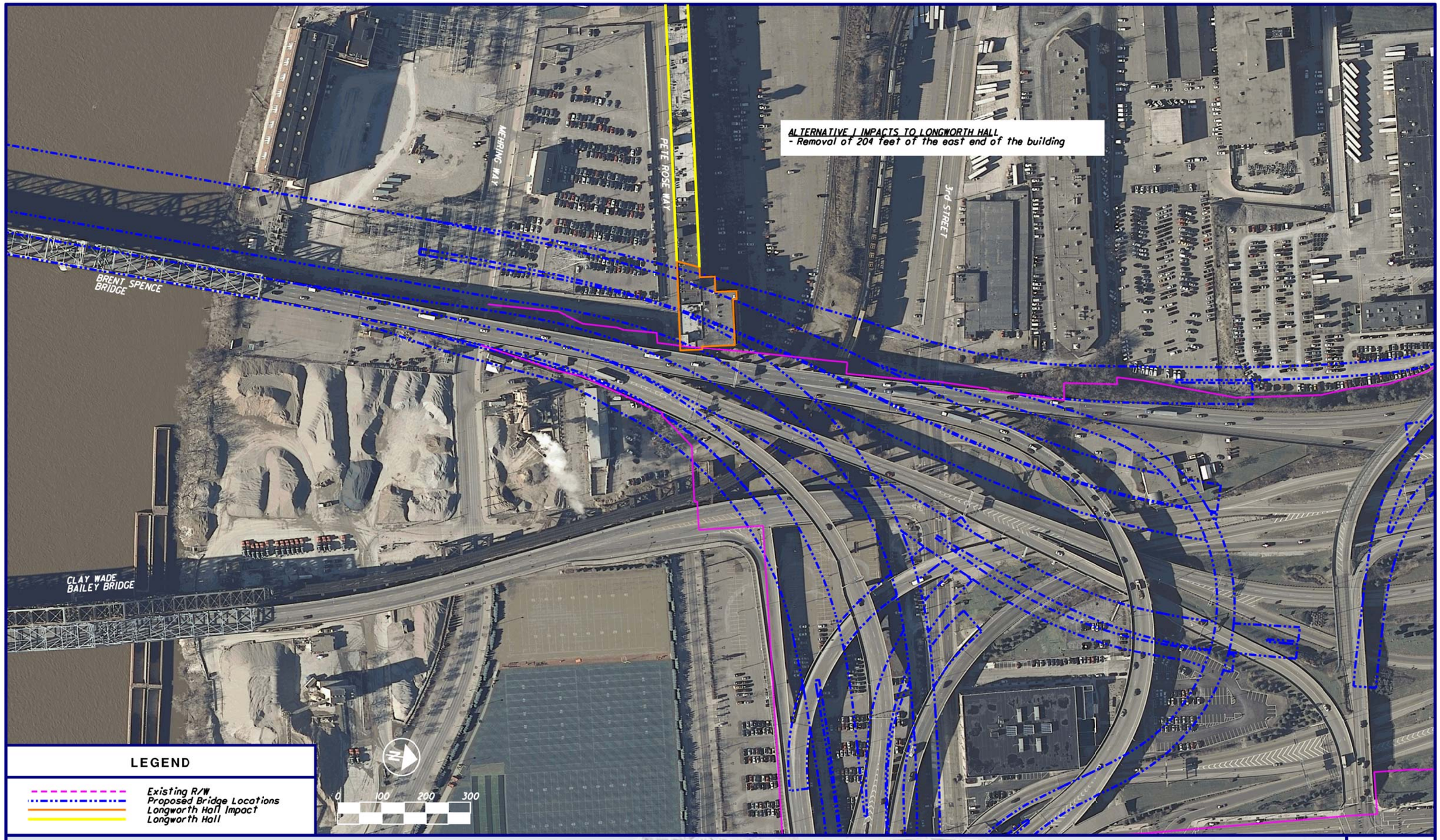


U.S. Department of Transportation
Federal Highway Administration

ALTERNATIVE E IMPACTS TO LONGWORTH HALL

EXHIBIT 7

Prepared by:
PARSONS BRINCKERHOFF



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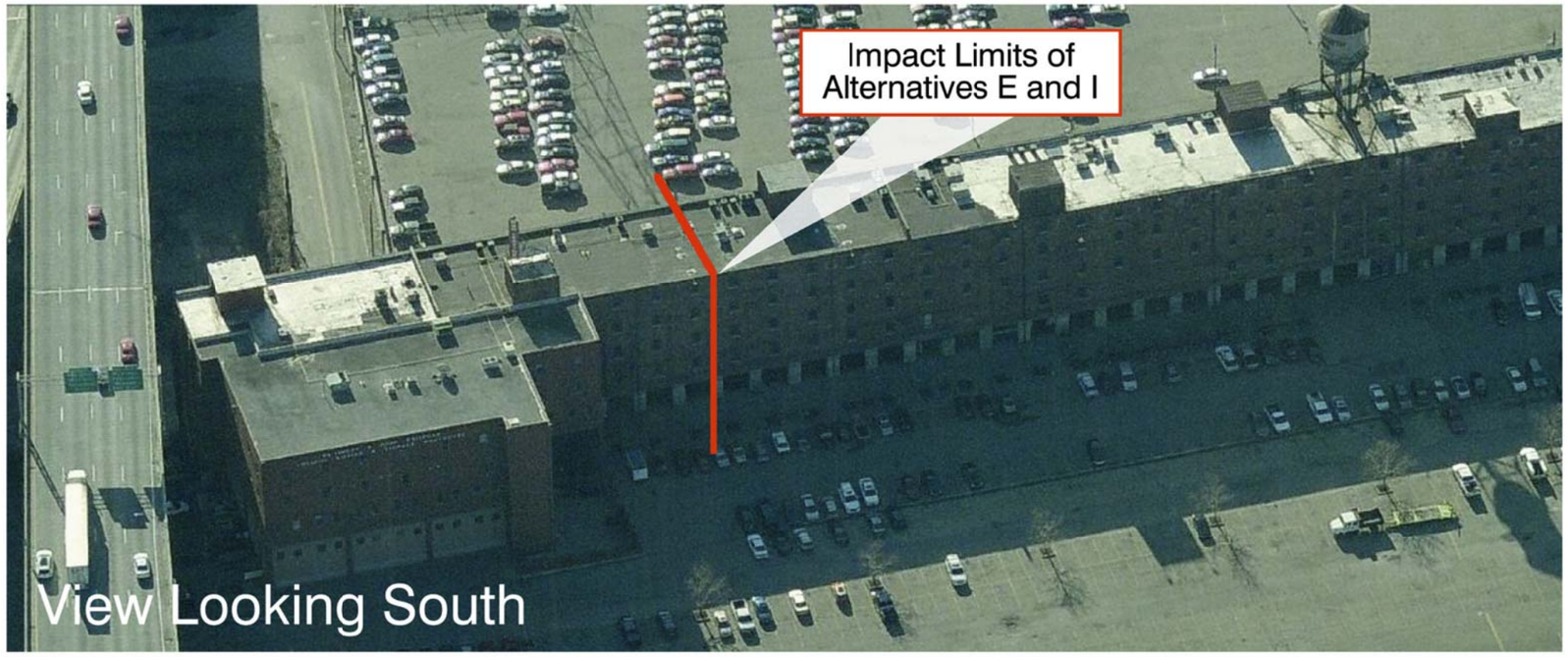
Federal Highway Administration

ALTERNATIVE I IMPACTS TO LONGWORTH HALL

EXHIBIT 8

Prepared by:
PARSONS BRINCKERHOFF

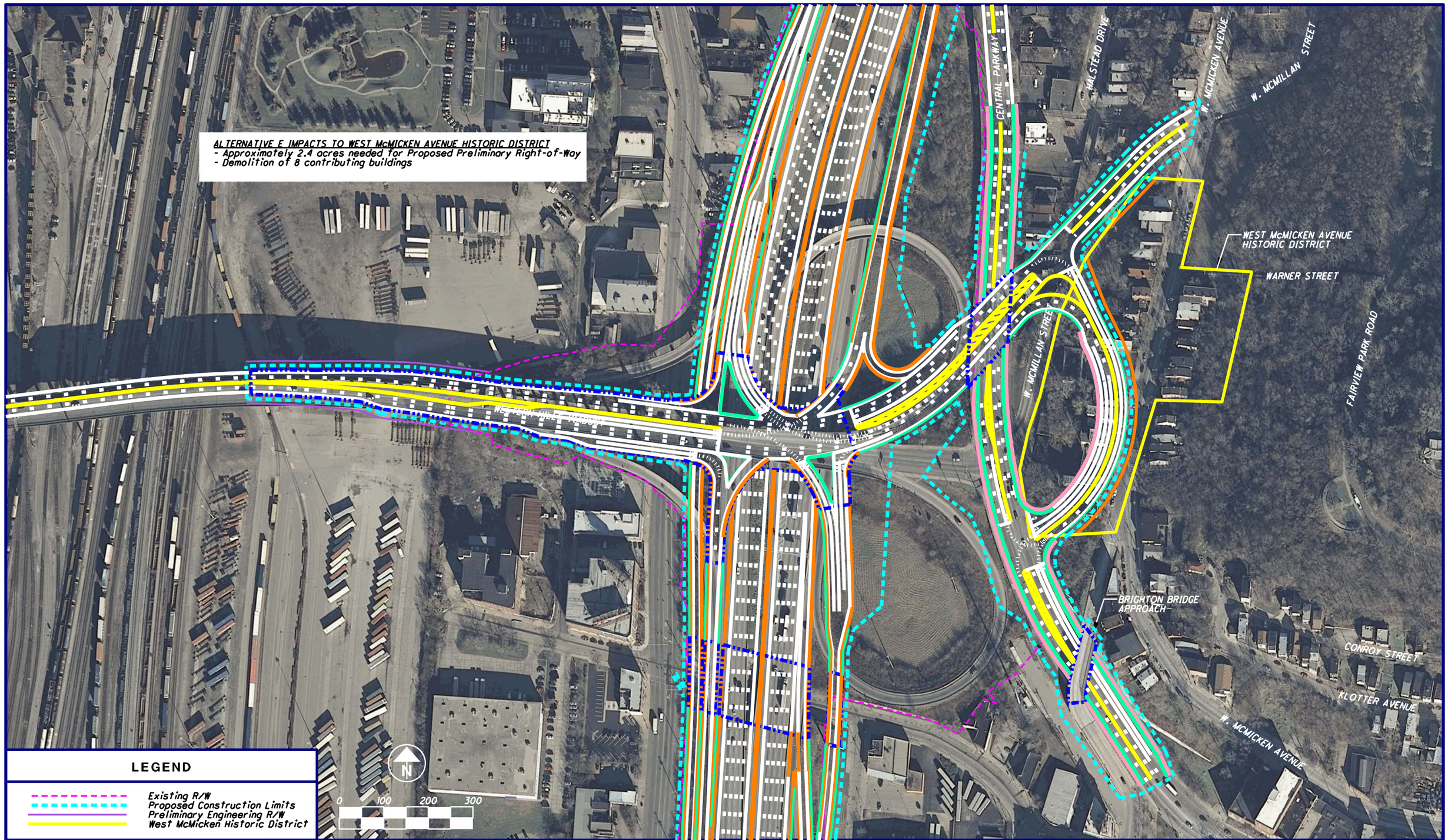


U.S. Department of Transportation
Federal Highway Administration

AERIAL VIEW OF IMPACTS TO LONGWORTH HALL

EXHIBIT
9

Prepared by:
PARSONS BRINCKERHOFF

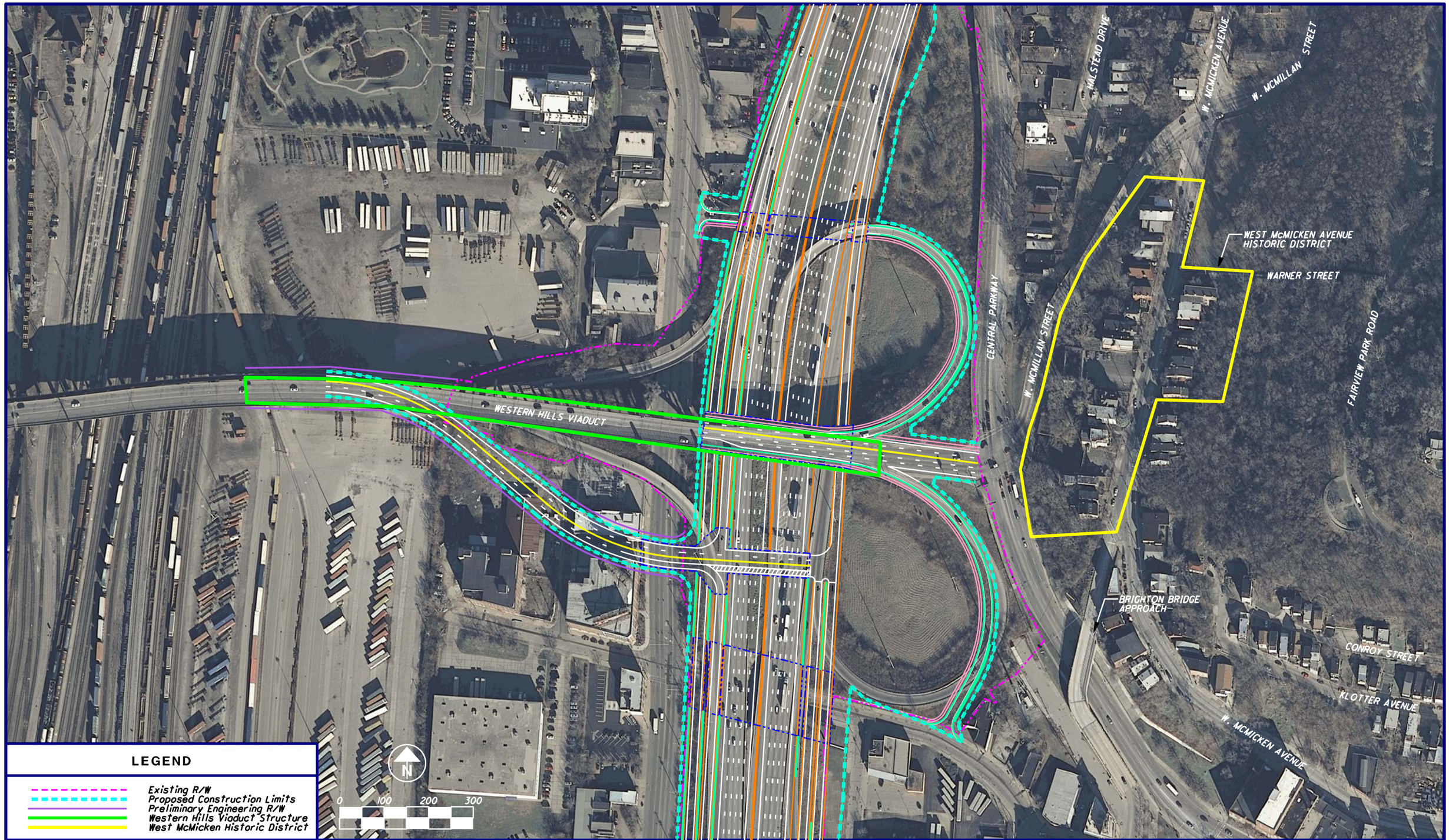


U.S. Department of Transportation
Federal Highway Administration

SINGLE POINT URBAN INTERCHANGE IMPACTS TO THE WEST McMICKEN AVE HISTORIC DISTRICT

EXHIBIT
10

Prepared by:
PARSONS BRINCKERHOFF



U.S. Department of Transportation
Federal Highway Administration

TIGHT URBAN DIAMOND INTERCHANGE AVOIDANCE ALTERNATIVE FOR THE WEST McMICKEN AVENUE HISTORIC DISTRICT

EXHIBIT
11

Prepared by:
PARSONS BRINCKERHOFF

Appendix A
De Minimis Coordination and Correspondence

CITY OF COVINGTON

638 MADISON AVENUE • COVINGTON, KENTUCKY 41011-2298

July 19, 2011

Jodie McDonald
Department for Local Government
Office Federal Grants
Community Enhancement Branch
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601

Dear Ms. McDonald:

The City of Covington has identified replacement property for the portions of Goebel Park that will be impacted by the Brent Spence Bridge Project. Based on the Summary Appraisal Report prepared by Lisa A. Keaton on June 30, 2010, approximately 1.9 acres of fee simple right of way will need to be acquired within Goebel Park. Approximately 2.8 acres of surplus right of way adjoining the Goebel Park property along 5th Street will be left after the project is complete. The City would like to request that the 2.8 acres of surplus right of way replace the 1.9 acres of Goebel Park that will be impacted.

Copies of the Summary Appraisal Reports and an aerial map showing the identified property are attached for reference. If you have questions or need any additional information, please let me know.

Sincerely,

Larry Klein
City Manager
City of Covington, Kentucky

cc: Stacee Hans
Assistant City Manager Larisa Sims
City Engineer Tom Logan
Assistant City Engineer Mike Yeager
Recreation Director Natalie Gardner

CITY OF COVINGTON

638 MADISON AVENUE • COVINGTON, KENTUCKY 41011-2298

November 28, 2011

Mr. Robert Hans, P.E.
Chief District Engineer-District 6
Kentucky Department of Highways
421 Buttermilk Pike
Covington, Kentucky 41017

Dear Rob:

Thank you for meeting with City Staff to further discuss the environmental process and specifically talk about the impacts the Brent Spence Bridge Project will have on Goebel Park. The City would like to acknowledge that the project will impact the park. However, we feel the project will not adversely impact the park if the mitigation process that has been outlined to us is followed. The City is comfortable with the project team moving forward in the 4(f) process with a determination of de minimus versus an Individual 4(f) Statement.

Please do not hesitate to contact my office if you have any questions or need any additional information.

Sincerely,

Larry Klein
City Manager
City of Covington, Kentucky

cc: Stefan Spinosa, ODOT
Stacee Hans, KYTC
Assistant City Manager Larisa Sims
City Engineer Tom Logan
Assistant City Engineer Mike Yeager
Recreation Director Natalie Gardner

January 13, 2012

KYTC Item # 6-17

Brent Spence Bridge Replacement/Rehabilitation Project

Summary of Meeting Regarding Potential Mitigation for 4(f) Impacts to Goebel Park

Attendees:

Larry Klein	City of Covington
Natalie Gardner	City of Covington
Mike Yeager	City of Covington
Rob Hans	KYTC
Stacee Hans	KYTC
Scott Schurman	KYTC

A meeting was held at the City of Covington's, Administration Building on January 6, 2012 to discuss mitigation measures for impacts to 4(f) resources with Goebel Park. Mitigation discussion included:

- Build Alternate I will have impacts to Goebel Park and will require the taking of the basketball courts and associated resources located in the southwest corner of Goebel Park. Resources associated with the basketball court include fencing, lighting structures, park bench, backboards, baskets with rims, and anchor polls. These items have been recently appraised and results of that appraisal were previously submitted in an e-mail dated December 19, 2011 from KYTC to the City of Covington (attached).
- The City of Covington was in agreement with the appraised costs of the basketball courts and associated resources. The city agreed that these appraised costs estimates will be good for a time period of two years. If acquisition is to occur after two years, then a reappraisal will occur and the revised appraised cost will be presented to the city for review and approval. This information will be included in the project Memorandum of Agreement (MOA),
- Funds that will be ultimately transferred as mitigation to the City of Covington must be expended on an outdoor recreational resource within Goebel Park itself. This stipulation will be included in the project MOA,
- Reimbursement for the replacement of the parking lot at the basketball court area will be handled through KYTC's standard right-of-way process,
- KYTC confirmed that the walking trails in Goebel Park would not be impacted by Alternate I.
- The City of Covington inquired about the status of the revised noise report. The city was particularly interested in the results of the revised noise monitoring and analysis specific to the pool location within Goebel Park. KYTC informed the city that the review for the revised noise report was being finalized and should be completed the week of January 9, 2012. The city requested to a copy of the report once KYTC has approved the report. KYTC indicated that they would forward a copy of the revised noise report to the city once it has been approved.

U.S. Department
of Transportation
Federal Highway Administration

Kentucky Division

330 West Broadway
Frankfort, KY 40601
PH (502) 223-6720
FAX (502) 223 6735
http://www.fhwa.dot.gov/kydiv

February 14, 2012

In Reply Refer To:
HDA-KY

Mr. Larry Klein
City Manager
City of Covington
638 Madison Avenue
Covington, Kentucky 41011-2298

Dear Mr. Klein:

This letter addresses our De Minimis Determination for Goebel Park, related to the Brent Spence Bridge Replacement/Rehabilitation Project, in Kenton County, Kentucky (KYTC Item Number: 6-17).

Thank you for your coordination with us and the Kentucky Transportation Cabinet (KYTC) to minimize the project's impacts to the park. It appears that Alternative I will take approximately 1.9 acres of parkland, a basketball court, and the court's associated resources. The impacts and specific mitigation measures are:

> The taking of 1.9 acres of park property from the southwest corner of Goebel Park will be replaced with 2.6 acres of currently state-owned property adjacent to the northwest corner of Goebel Park;
>
> The taking of the basketball court and associated resources will be mitigated by mitigation funding of approximately $77,600.00 for the replacement and enhancement of the basketball courts or for other outdoor recreation facilities within the park.

Enclosed is a map showing the project and affected park property. We find that there is no alternative that will avoid the use of 4(f) resources. This action includes all possible planning to minimize harm to the property, and that the resulting impacts, with mitigations, will not adversely affect the activities, features, and attributes that qualify the resource for protection under 4(f). The project, including the mitigations, will expand and enhance the park boundaries, amenities, and public safety.

Thus, FHWA has determined that the project, with the KYTC committed mitigations, will have a de minimis impact, as defined in 23 CFR 774.17, on the park. We request your concurrence with this determination.

If you have any questions, please contact me at (502) 223-6747.

John Ballantyne
Program Delivery Team Leader
Federal Highway Administration

Concurrence: 2/14/12
David M. Waldner, P.E., Director Date
Division of Environmental Analysis
Kentucky Transportation Cabinet

2-17-12
Larry Klein Date
City Manager
City of Covington

Enclosure

cc: David Waldner, KYTC
Stacie Hans, KYTC

OHIO DEPARTMENT OF TRANSPORTATION

DISTRICT 8 • 505 SOUTH STATE ROUTE 741 • LEBANON, OH 45036

JOHN KASICH, GOVERNOR • JERRY WRAY, DIRECTOR • STEVE MARY, P.E., DISTRICT 8 DEPUTY DIRECTOR

May 9, 2011

Reverend Kazava Smith, President
City of Cincinnati Recreation Commission
805 Central Avenue, Suite 800
Cincinnati, Ohio 45202

ATTN: Dr. Norman Merrifield, Director of Recreation

RE: HAM-71/75-0.00/0.22
Brent Spence Bridge Replacement/ Rehabilitation Project Section 4(f) *De Minimis* Concurrence
Queensgate Playground and Ball Fields

Dear Reverend Smith:

Enclosed is one fully executed Memorandum of Agreement (MOA) between the State of Ohio Department of Transportation (ODOT) and the City of Cincinnati Recreation Commission (CRC). This MOA was completed to document commitments of ODOT required as a result of the impacts to the Queensgate Playground and Ball Fields by the proposed roadway improvements associated with the Brent Spence Bridge Project.

ODOT requested written concurrence from the CRC that the project, as proposed including the mitigation described in the Memorandum of Agreement, will not adversely affect the activities, attributes, and features that qualify the Queensgate Playground and Ball Fields for protection under Section 4(f). ODOT intends to seek the *de minimis* Section 4(f) finding based upon the executed Memorandum of Agreement.

As stated in the MOA Stipulations, once the CRC submits an acceptable plan detailing how the ODOT compensation will be utilized, ODOT will pay $198,050 to the CRC to be applied toward the plan. This obligation will terminate on June 30, 2012 as stated in the MOA.

If you have any questions regarding this project, please contact Stefan Spinosa at (513)933-6639 or by email at Stefan.Spinosa@dot.state.oh.us.

Respectfully,

Andrew J. Fluegemann, P.E.
District 8 Environmental Coordinator

enclosure

cc: Joe Schwind (CRC), Hoffman, Vonder Embse (FHWA), Smith, file (2)

OHIO DEPARTMENT OF TRANSPORTATION

DISTRICT 8 • 505 SOUTH STATE ROUTE 741 • LEBANON, OH 45036

JOHN KASICH, GOVERNOR • JERRY WRAY, DIRECTOR • STEVE MARY, P.E., DISTRICT 8 DEPUTY DIRECTOR

March 4, 2011

Reverend Kazava Smith, President
City of Cincinnati Recreation Commission
805 Central Avenue, Suite 800
Cincinnati, Ohio 45202

ATTN: Dr. Norman Merrifield, Director of Recreation

RE: **HAM-71/75-0.00/0.22**
Brent Spence Bridge Replacement/ Rehabilitation Project Section 4(f) *De Minimis* Concurrence
Queensgate Playground and Ball Fields

Dear Reverend Smith:

This letter is in regard to the Brent Spence Bridge Replacement/ Rehabilitation project and its potential impact to Queensgate Playground and Ball Fields in downtown Cincinnati.

As you may be aware, the Ohio Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to replace the Brent Spence Bridge and make improvements to I-71/I-75 in Cincinnati from the Ohio River to the Western Hills Viaduct. The project will include the widening of the interstate facility and improvements to several interchanges within this section. The project is needed to improve the safety and operations of I-71/I-75 and the Brent Spence Bridge.

Prior to 2010, a number of alignment alternatives for the Brent Spence Bridge Replacement/ Rehabilitation project were developed and studied, which resulted on the selection of Conceptual Alternatives C, D, and E for further investigation. Upon request of the public, Alternatives C and D were developed as a single alternative, by combining the northbound direction of Alternative C and the southbound direction of Alternative D. This combined alternative has been designated as Alternative I. Through the Environmental Assessment process, Alternative I has been identified as the recommended preferred alternative.

Alternative I will impact one recreational area under the jurisdiction of the Cincinnati Recreation Commission (CRC), specifically, the Queensgate Playground and Ball Fields. As a public recreational area, the facility is afforded protection under Section 4(f) of the US Department of Transportation Act of 1966. The alternative would have the following impacts on this recreational facility.

The proposed construction limits for Alternative I would encroach upon the southwestern edge of the property adjacent to I-75. Alternative I, as the recommended preferred alternative, would extend into the outfield area of both baseball fields. Approximately 0.9 acres would be acquired from the recreational area. The impacts to Queensgate Playground and Ball Fields are shown on Exhibit 1 (enclosed). The right-of-way for the recommended

preferred alternative will extend approximately 55 feet from the existing Winchell Avenue/I-75 right-of-way into the outfields as shown on Exhibit 2. In addition, a small walkway leading from Cutler Street into the recreational area may also be directly affected by Alternative I.

Reconfiguration of the baseball fields and walking paths within the remaining city park area may be accomplished in accordance with the Conceptual Mitigation Plan (see Exhibit 3). The reconfiguration may result in the loss of approximately 15 trees and two sections of walkway that parallel West Court Street and Cutler Street. The enclosed Memorandum of Agreement details the proposed mitigation measures based on the Alternative I impacts to the Queensgate Playground and Ball Fields.

The purpose of this letter is to request your concurrence with ODOT's recommendation that, the impacts to the park will not adversely affect the activities and features of the Queensgate Playground and Ball Fields. Section 6009 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) amends existing Section 4(f) legislation to simplify the processing and approval of projects that only have "*de minimis*" impacts on lands protected by Section 4(f) under your jurisdiction. In accordance with Section 6009(a), *de minimis* impacts on publicly owned parked, recreation areas, and wildlife and waterfowl refuges area defined as those that do not "adversely affect the activities, features, and/or attributes" that make resources eligible for Section 4(f) protection.

Section 4(f) Ownership

The Queensgate Playground and Ball Fields are owned by the City of Cincinnati and are under the jurisdiction of the CRC.

Section 4(f) Feature of the Property

The Queensgate Playground and Ball Fields are located at 707 West Court Street. The 5.3-acre public recreational area is bounded by West Court Street to the north, Cutler Street to the east, Winchell Avenue and I-75 to the south and Linn Street to the west. On-site amenities include two adult ball fields, one of which is lighted for night-time use, and a neighborhood playground. The lighted field is an A-size ball field with a 305-foot outfield; the second field is a B-size field with a 255-foot outfield. During the fall, a football field is laid out across the two ball fields for use by the Hays-Porter Elementary School. Less than one acre of the park will be affected with impacts limited to the ball fields. The playground, located in the northeastern portion of park will not be affected by the project. A small walkway from Cutler Street into the park will also be directly affected. Mitigation for the park anticipates providing a financial settlement in addition to the purchase of necessary property from the City. The financial settlement is based on Exhibit 3, the Conceptual Mitigation Plan. Reconfiguration of ball fields in accordance with Exhibit 3 would result in the loss of mature shade trees located along West Court Street and displacement of a walkway. These features will also be mitigated in accordance with the enclosed Memorandum of Agreement.

Access to Queensgate Playground and Ball Fields

Access to the recreational area is provided via local roads (West Court Street and Cutler Street). These roadways will not be affected by the project. A small walkway from Cutler Street to the ball fields will be affected. However, this will be maintained during construction.

Current Use of the Section 4(f) property

The affected area serves as the outfield for two baseball fields used for youth recreational leagues. The area is grassed with some trees and shrubs on the slopes between the ball fields and Winchell Avenue.

Similarly Used Land in the Vicinity

There are three recreational areas in close proximity to the Queensgate Playground and Ball Fields:

- Dyer Park - 2110 Freeman Avenue
- Lincoln Community Center – 1027 Linn Street
- Washington Park – 1225 Elm Street

These facilities will be available for use during construction.

Public and Agency Involvement

Extensive public involvement and agency coordination has been undertaken for the Brent Spence Bridge Replacement/ Rehabilitation project. Public Meetings were held in May 2006 and May 2009 for the purpose of disclosing information and obtaining comment on project impacts. No comments were received on impacts to Queensgate Playground and Ball fields.

Meetings and on-going coordination have been held with the CRC to disclose information about the project and its impacts as well as collect input. ODOT has worked with the CRC to develop a conceptual mitigation plan for reconfiguration of the affected ball fields. The enclosed Memorandum of Agreement has been developed as a result of this coordination.

Additional public meetings will be held concurrent with the approval of the Environmental Assessment. Exhibits showing impacts of the project alternatives to the ball fields will be available at these meetings for public review and comment.

De Minimis Section 4(f) Determination

ODOT, in consultation with the FWHA - Ohio Division, would like to apply for a *de minimis* standard to Queensgate Playground and Ball Fields for the HAM-71/75-0.00/0.22 project. The *de minimis* finding is based on the degree or level of impact including any avoidance, minimization and mitigation measures or enhancement measures that are included in the project to address the Section 4(f) use.

ODOT requests written concurrence from the CRC that the project, as proposed including the mitigation described in the Memorandum of Agreement, will not adversely affect the activities, attributes, and features that qualify the Queensgate Playground and Ball Fields for

protection under Section 4(f). ODOT intends to seek the *de minimis* Section 4(f) finding based upon the assessment of this letter and execution of the Memorandum of Agreement. If the CRC concurs, please sign and date both copies of the Memorandum of Agreement and return it to the ODOT District 8 Planning Department. Once ODOT signatures are obtained, a final executed copy will be returned to the CRC.

If you have any questions regarding this project, please contact Stefan Spinosa at (513)933-6639 or by email at Stefan.Spinosa@dot.state.oh.us.

Respectfully,

Andrew J. Fluegemann, P.E.
District 8 Environmental Coordinator

enclosures

cc: Norman Merrifield, Ed. D. Director of Recreation, Hoffman, Vonder Embse (FHWA), file

HAM-71/75-0.00/0.22, PID 75119
MEMORANDUM OF AGREEMENT BETWEEN THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION (ODOT), AND THE CITY OF CINCINNATI RECREATION COMMISSION (CRC) REGARDING THE BRENT SPENCE BRIDGE PROJECT IMPACT TO THE QUEENSGATE PLAYGROUND AND BALL FIELDS
Agreement Number: 16588

1. WHEREAS, the proposed roadway improvement project know as HAM-71/75-0.00/0.22, PID 75119 (PROJECT) will improve safety and traffic flow by reconstructing portions of Interstate 75 in Cincinnati, Ohio; and

2. WHEREAS, the Queensgate Playground and Ball Fields are owned by the City of Cincinnati and are under the jurisdiction of the CRC; and

3. WHEREAS, the PROJECT'S proposed limits of construction impact approximately 0.9 Acres of the Queensgate Playground and Ball Fields operated by the CRC as shown in Exhibit 1; and

4. WHEREAS, the right-of-way for the PROJECT will extend approximately 55 feet from the existing Winchell Avenue/I-75 right-of-way into the outfields of the Queensgate Ball Fields as shown on Exhibit 2; and

5. WHEREAS, the Queensgate Playground and Ball Fields, as a public recreational area, is afforded protection under Section 4(f) of the US Department of Transportation Act of 1966; and

6. WHEREAS, consultation for the PROJECT has taken place in meetings with individuals, specific groups, and the general public; and

7. WHEREAS, meetings and on-going coordination have been held with the CRC to disclose information about the project and its impacts as well as collect input; and

8. WHEREAS, ODOT has worked with the CRC to develop a conceptual mitigation plan for reconfiguration of the affected ball fields; and

9. WHEREAS, ODOT, in consultation with the FWHA, would like to apply for a *de minimis* standard to Queensgate Playground and Ball Fields for PROJECT; and

10. WHEREAS, the *de minimis* finding is based on the degree or level of impact including any avoidance, minimization and mitigation measures or enhancement measures that are included in the project to address the Section 4(f) use; and

11. WHEREAS, ODOT requests concurrence—by signature on this document—from the CRC that the PROJECT as proposed, including the mitigation described in this Memorandum of

Agreement, will not adversely affect the activities, attributes, and features that qualify the Queensgate Playground and Ball Fields for protection under Section 4(f); and

12. WHEREAS, ODOT intends to make the *de minimis* Section 4(f) finding based upon the concurrence of the CRC;

13. NOW, therefore, ODOT and the CRC agree that the PROJECT will be implemented in accordance with the following stipulations in order to mitigate the impacts to the Queensgate Playground and Ball Fields.

STIPULATIONS:

ODOT will ensure the following stipulations are carried out:

1. ODOT will acquire property from the CRC in accordance with all applicable Federal and State regulations. Compensation for land and property, excluding ball field lighting, will be via the normal ODOT property acquisition procedures. Ball field lighting will be compensated as described in the attached *Cost of Mitigation Compensation, Sections 1(d) and 2(d)*. The current PROJECT schedule anticipates acquisition of the CRC property between 2012-2013 pending approval of funding through ODOT's budgetary process.

2. ODOT, upon receipt of an acceptable plan detailing how the CRC will utilize funds for recreational purposes, will pay $198,050 to the CRC to be applied toward the submitted plan. CRC may utilize more than the $198,050 independently of ODOT. The financial obligation of ODOT is subject to Section 126.07 of the Ohio Revised Code and shall terminate as of June 30, 2012.

3. Limited Access Right-of-Way fencing along the park and highway boundary will be installed along the CRC property as part of ODOT's construction project. The fence will consist of 10' high chain link fencing.

4. Park Staff may remove (rescue) understory vegetation in the area to be acquired for highway purposes prior to the PROJECT sale date.

5. ODOT has given members of the public within the project's study area an opportunity to provide comments on the park impacts prior to submission of 4(f) *de minimis* documentation to the CRC. Any comments that have been received concerning impacts to the park will be provided to the CRC.

6. Subject to the Provisions in Stipulations No. 6 and No. 7 below, the CRC, with the intention of binding themselves, their successors-in-interest, and their assigns, do herby release, hold harmless from any liability, and forever discharge the State of Ohio, the Ohio Department of Transportation, and their agents, servants, employees, and officers, personally and in any other capacity, from all claims, actions, causes of action, demands, costs, loss of services, expenses, and any and all other damages that the undersigned ever

had, now have, or claim to have against the State of Ohio, the Ohio Department of Transportation, or their agents, servants, employees or officers, on account of or in any way arising out of the PROJECT's described impacts to the Queensgate Playground and Ball Fields, including any further measures to avoid, minimize or mitigate such impact.

7. ODOT will seek a *de minimis* Section 4(f) impact finding based on the terms of this Memorandum of Agreement (MOA), in accordance with Section 6009(a) of SAFETEA-LU.

8. Should any signatory to this MOA object at any time to any actions propose for the manner in which the terms of this MOA are implemented, ODOT will consult with such signatory to resolve the objection

9. Any signatory to this MOA may propose that this MOA be amended, whereupon, the parties will consultant in accordance with Section 6009(a) of SAFETEA-LU to consider such an amendment.

10. The parties agree that if plans for the PROJECT substantially change and if such changes may have a significant direct or indirect adverse impact to the Queensgate Playground and Ball Fields, other provisions of this MOA notwithstanding, the parties will reopen discussion regarding mitigation, and proceed under Section 6009(a) of SAFETEA-LU to resolve or mitigate such adverse effects.

11. If the PROJECT has not been implemented within ten (10) years of the date of the execution of this MOA, this MOA will be considered null and void, and ODOT will so notify all of the signatories. If ODOT chooses to continue with the PROJECT utilizing Federal funding then ODOT will reinitiate consultation with the signatories in accordance with Section 6009(a) of SAFETEA-LU; however, if ODOT has paid monies to the CRC pursuant to Stipulation No. 2 by June 30, 2012, the CRC shall be precluded from reinitiating consultation or requesting any further measures to avoid, minimize, or mitigate the PROJECT's described impact.

Execution of this MOA by ODOT and the CRC and implementation of this MOA's terms by ODOT evidences that ODOT has taken into account the effects of the PROJECT on the Queensgate Playground and Ball Fields.

SIGNATORIES:

Director, Ohio Department of Transportation — Date: 5/5/11

Director, Cincinnati Recreation Commission — Date: 4/21/11

ATTACHMENTS:

1. Cost of Mitigation Compensation
2. Exhibit 1: Alternative I impacts to Queensgate Playground and Ball Fields
3. Exhibit 2: Alternative I Proposed Limited Access R/W Limits
4. Exhibit 3: Queensgate Playground and Ball Fields Conceptual Mitigation Plan

Cost of Mitigation Compensation

For purposes of establishing fair and reasonable compensation to mitigate the impacts to the Queensgate Playground and Ball fields, the following is provided:

1. In addition to the compensation of land and property needed to complete the project, to mitigate impacts to the park ODOT commits to the following additional compensation:
    a. Compensation will be provided to the CRC based on the relocation of the two existing ball fields as shown on Exhibit 3.
    b. Compensation will be provided to the CRC based on the relocation of the 435' of walking path within the park as shown on Exhibit 3.
    c. Compensation will be provided to the CRC based on the loss of trees due to the relocation of ball fields and path as shown on Exhibit 3.
    d. Compensation will be provided to the CRC based on the need to relocate field lighting due to the relocation of ball fields and path as shown on Exhibit 3.
    e. Compensation will be provided to the CRC based on the need to prepare final mitigation plans and monitor construction of the mitigation project.

    The mitigation compensation is based on the conceptual mitigation plan (Exhibit 3).

2. This section details the cost of mitigation compensation as described in Section 1(a-e).
    a. Ball Field Compensation:
        i. Compensation for excavation and embankment needed for relocation of two ball fields:

A Ballfield Area = 70,686 SF
B Ballfield Area = 49,087 SF
Combined Infield Area = 9,450 SF

Excavation:
[1' depth X (70,686+49,087)]/27 = 4,436 CY X $8.00/CY = $35,488

Embankment (not including infield area):
[1' depth X (70,686+49,087-9,450)]/27 = 4,086 CY X $6.00/CY = $24,516

Embankment (infield area):
(1' depth X 9,450 SF)/27 = 350 CY X $17.75/CY = $6,213

Embankment (infield area special preparation):
10 Hours X $80/Hour = $800 + $100 Mobilization = $900

Seeding and Mulching:
70 % X (70,686 + 49,087) / 9 = 9,316 SY X $1.00/SY = $9,316
Sodding of Infield Edge:
Lump Sum = $650/Field X 2 Fields = $1,300

ii. Compensation for new field benches and concrete pads:

4 benches X $2,000/bench = $8,000

iii. Compensation for two new vinyl coated fence backstops:

2 backstops X $15,000 /backstop = $30,000

b. Walking Path Compensation:
   i. Compensation for relocation of two walking paths (270 feet of the eastern path and 165 feet of the northern path) is based on a 8' wide concrete path:

   8' X (270' + 165') X $6.75/SF = $23,490

c. Tree Compensation:
   i. For purposes of determining the appropriate mitigation for the impacts to the Queensgate Ball Fields, it is agreed by the Ohio Department of Transportation (ODOT) and the Cincinnati Recreation Commission that Cincinnati's legal definition of a public tree: Sec. 743-1-T. Tree. "Tree", shall be used. This definition is defined by the following:
      1. Any self-supporting woody plant which has a well-defined stem with a diameter of at least four inches at four and one-half feet from the ground;
      2. Any dogwood, redbud or other conspicuously flowering woody plant as designated by the director which has a well-defined stem of at least two inches diameter at four and one-half feet from the ground;
   ii. Tree Compensation calculation:
      1. All trees as defined in (2.c.i.1) above to be compensated based on a 1 - 2" caliper balled and burlapped or container shade tree at the rate of 1 tree for each 12" of trunk diameter at 4 ½ feet above the ground. The following trees would be impacted by the relocation of the ball fields as shown in Exhibit 3:

Species	dbh	No. of Repl. Trees
Basswood	17.2	2
Basswood	21.0	2
Basswood	30.9	3
Crab Apple	20.7	2
Crab Apple	21.3	2
Hackberry	23.9	2
Hackberry	17.8	2
Hackberry	23.2	2
Hackberry	19.4	2
Hackberry	18.2	2

Hackberry	20.4	2
Hackberry	16.2	2
Hackberry	33.8	3
Hackberry	24.8	2
Hackberry	24.8	2
		32

32 trees X $100/tree = $3,200

2. All trees as defined in (2.c.i.2) above to be compensated based on a 1" caliper container understory tree. No trees in this category would be impacted by the relocation of the ball fields as shown in Exhibit 3.

d. Lighting Compensation:
   i. Compensation for relocation of six light towers includes new poles, new wiring, and reuse of existing ballasts and light:

      6 towers X $6,000/tower = $36,000

e. Design and Construction Engineering Compensation:
   i. Design costs will be compensated based on 8% of the cost of compensation of items listed in Section 1.(b-e).

      0.08 X $178,423 = $14,274

   ii. Construction costs will be compensated based on 3% of the cost of compensation of items listed in Section 1.(b-e).

      0.03 X $178,423 = $5,353

f. Total mitigation compensation to be provided in addition to land and property acquisition is $198,050.

U.S. Department of Transportation
Federal Highway Administration

QUEENSGATE PLAYGROUND AND BALLFIELDS MITIGATION PLAN

EXHIBIT
1

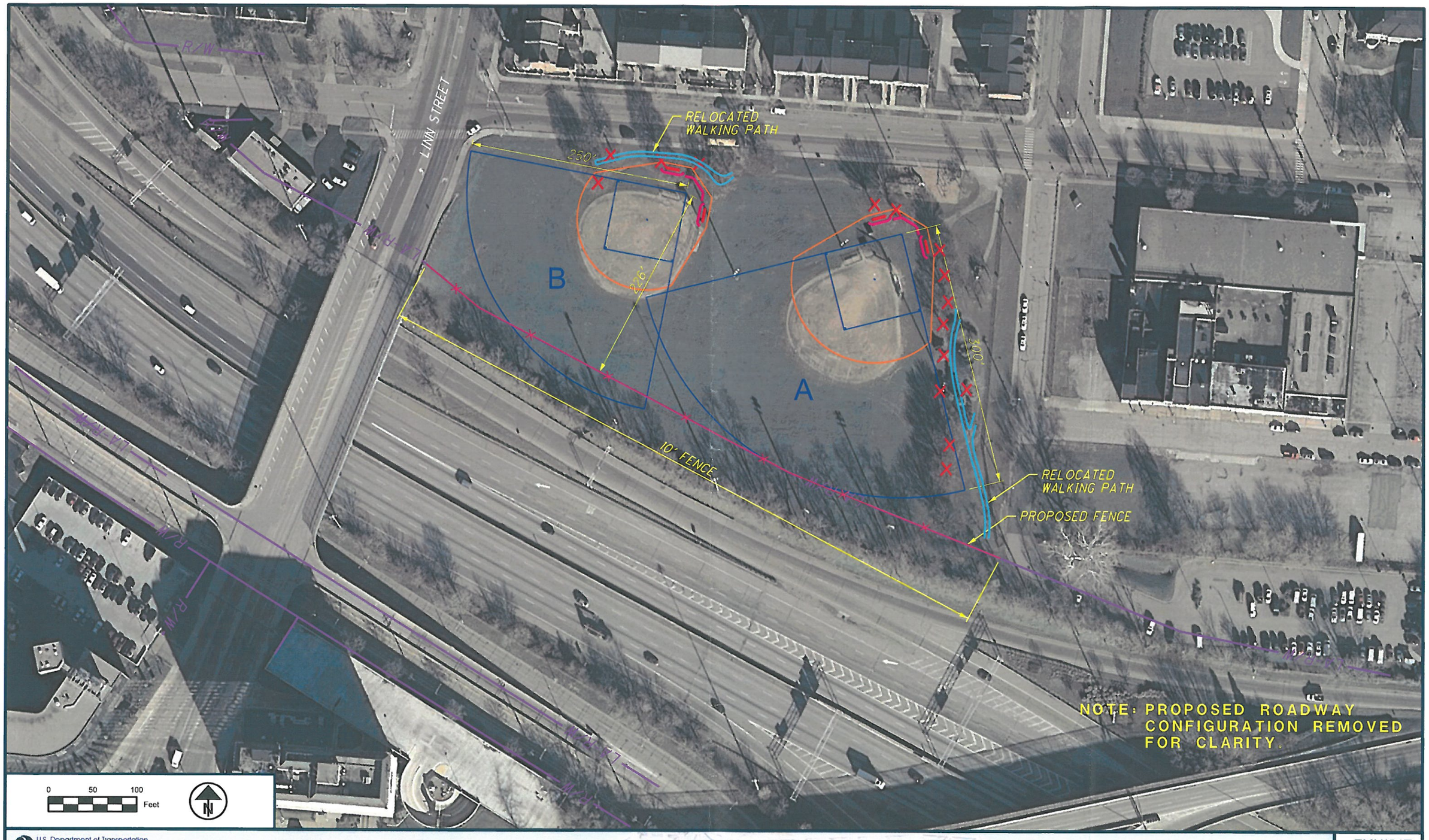
Prepared by
PARSONS BRINCKERHOFF

U.S. Department of Transportation
Federal Highway Administration

QUEENSGATE PLAYGROUND AND BALLFIELDS MITIGATION PLAN

EXHIBIT
2

Prepared by:
PB PARSONS BRINCKERHOFF



U.S. Department of Transportation
Federal Highway Administration

QUEENSGATE PLAYGROUND AND BALLFIELDS MITIGATION PLAN

EXHIBIT
3

Prepared by
PARSONS BRINCKERHOFF

OHIO DEPARTMENT OF TRANSPORTATION

CENTRAL OFFICE • 1980 WEST BROAD STREET • COLUMBUS, OH 43223
JOHN R. KASICH, GOVERNOR • JERRY WRAY, DIRECTOR

OFFICE OF ENVIRONMENTAL SERVICES

October 28, 2011

Mr. Mark Epstein, Department Head
Resource Protection and Review
Ohio Historic Preservation Office
800 East 17th Avenue
Columbus, Ohio 43211

Attn: ODOT Transportation Review Managers

Subject: HAM-71/75-0.00/0.22 (PID 75119)

Re: *Notification of Adverse Effect*

Dear Mr. Epstein:

The intent of the subject submission is to consult with the Ohio State Historic Preservation Office (OSHPO) concerning the Section 106 effect of the subject undertaking, HAM-71/75-0.00/0.22 (PID 75119), on historic properties within the State of Ohio. The subject undertaking is to provide for operational improvements within the Interstate (IR) 71 and 75 corridors in the Greater Cincinnati/Northern Kentucky region. The corridor currently suffers from congestion and safety-related issues as a result of inadequate capacity to accommodate current traffic demand.

Project Description

The proposed undertaking will rehabilitate the existing Brent Spence Bridge; as well as, construct a double-deck bridge over the Ohio River. The existing Brent Spence Bridge will continue to carry northbound and southbound local traffic with two lanes in the southbound direction and three lanes in the northbound direction. The new double-deck bridge will carry northbound and southbound IR-71 and IR-75 traffic. The upper deck will carry IR-71 south via three southbound lanes and north via two northbound lanes. The lower deck will carry IR- 75 south via three southbound lanes and north via three northbound lanes.

Notification of Adverse Effect – B & O Freight Building/Longworth Hall (NRHP)

In accordance with 36 CFR § 800.5(a), FHWA has determined the subject undertaking will adversely affect the B & O Freight and Storage Building/Longworth Hall, listed on the National Register of Historic Places (NRHP) (860003521), 700 Pete Rose Way (Second Street), Cincinnati, Ohio. The report the *Brent Spence Bridge Replacement/Rehabilitation Project, Determination of Effects Report, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011),* forwarded to the OSHPO on June 14, 2011, provides documentation of the adverse effect finding as specified by 36 CFR § 800.11(e) (**Figure 1**).

The undertaking, as proposed, will result in the removal of a portion of the B & O Freight and Storage Building/Longworth Hall, listed on the NRHP, to facilitate the construction of the new double-deck bridge. The undertaking will require the removal of a portion of the eastern end of the building which includes: three, 15-foot, two 13-foot, and six 12 foot bays for a total of 20,000 square feet of floor space. It is to be noted the eastern end of the building was previously altered by the removal of a portion of the building to allow for the construction of the Brent Spence Bridge. The Scale House, located within the National Register boundaries as a contributing building, will not be removed or altered by the undertaking. Enclosed is an electronic copy of the report, *Brent Spence Bridge Replacement/Rehabilitation Project, Longworth Hall Impact Analysis Report, Part Three: Potential Mitigation Measures, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011),* which provides additional details as to the effect of the undertaking on the historic property **(Figure 1).**

The implementing regulations of Section 106, codified at 36 CFR § 800.5(a)(2), provide examples of adverse effects: *(i) Physical destruction of or damage to, all or part of the property . . . (ii) Alteration of a property, including restoration, repair, maintenance.* Therefore, based on the proposed removal of a portion of the B & O Freight and Storage Building/Longworth Hall, listed on the NRHP, FHWA, with ODOT as their agent, have determined a finding of "adverse effect" is applicable. In regard to the applicability of the remaining aspects of the adverse effect criteria as specified by 36 CFR § 800.5(a)(2), the following is offered:

(iii) Removal of the property from its historic location: The building will not be removed from its original location;

(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance: The property will continue to be used in a manner consistent with its current use upon the completion of the undertaking. The property is eligible for inclusion on the NRHP under Criterion A for its association with significant period of Cincinnati's rail transportation history; and, under Criterion C as an outstanding representation of an architectural type and method of construction applied to a rail depot. These characteristics will not be compromised. The introduction of a new double-deck bridge, to the east of the property would not alter the historic significance of the property in regard to Criterion A and its association with Cincinnati's rail transportation history. Concerning architectural significance, the remaining portion of the building will retain its current architectural features. Alterations to the building will be limited to the eastern end the building.

(v) *Introduction of visual, atmospheric or audible elements that diminish the integrity of the properties significant historic features:* During the property's period of significance, its setting and use as a rail depot was likely associated with relatively high ambient noise levels. The current setting features multiple transportation modes and facilities including: rail lines, bus transit, adjacent elevated interstate routes, and local ground level traffic featuring the movement of freight, services, local travelers and visitors. Noise analyses were conducted in conjunction with the project development process and noise barriers were determined to be unwarranted at this location. As an integral part of ODOT's project development process, measures to avoid or minimize harm to adjacent buildings and structures due to construction related vibration impacts are monitored before, during and after construction. No long term vibration impacts are anticipated. During construction, any anticipated short-term vibration impacts will be minimized or avoided by alternative construction methods. The property is eligible for inclusion on the NRHP under: Criterion A for its association with significant period of Cincinnati's rail transportation history; and, under Criterion C as an outstanding representation of an architectural type and method of construction applied to a rail depot. These characteristics will not be compromised.

In regard to the visual context, baseline conditions include the existing setting, including the natural and built environment. Visual intensity refers to the significance of an anticipated visual impact, either beneficial or adverse. The existing project area is highly urbanized and includes freeways, bridges, highway lighting, traffic control devices, guardrail, and local roadways. Short term visual impacts may include: earthwork, material and equipment storage, and construction activities. However, permanent negative visual impacts are not anticipated. The characteristics which qualify the B & O Freight Building/Longworth Hall for inclusion on the NRHP will not be diminished by the proposed undertaking.

(vi) Neglect of a property which causes its deterioration: The property will remain under current ownership. FHWA, with ODOT as their agent, will restore the building to a condition as agreed upon in consultation with the property owner and as a result of the Section 106 consultation process.

(vii) Transfer, lease, or sale of property: The property will retain remain under current ownership. The property owner will be compensated for any loss or damages as specified by Ohio Revised Code and in accordance with all applicable federal regulations.

Notification of Adverse Effect to the ACHP

On August 11, 2011, FHWA, with ODOT as their agent, notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect of the undertaking to determine their participation in resolving the adverse effects (**Figure 2**). The enclosed documents were forwarded to the ACHP for review and consideration:

- *Brent Spence Bridge Replacement/Rehabilitation Project, Determination of Effects Report, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011).*

- *Brent Spence Bridge Replacement/Rehabilitation Project, Longworth Hall Impact Analysis Report, Part Three: Potential Mitigation Measures, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011).*

- *Draft Memorandum of Agreement Between the Federal Highway Administration, the Ohio Department of Transportation, the Ohio State Historic Preservation Office, Regarding the HAM-71/75-0.00/0.22, PID 75119, Brent Spence Bridge Replacement/Rehabilitation Project, Hamilton County, Ohio and Kenton County, Kentucky, Adverse Effect to the B & O Freight and Storage Building/Longworth Hall, Listed on the National Register of Historic Places (86003521), 700 Pete Rose Way (Second Avenue), Cincinnati, Ohio (ODOT Agreement Number 16829).*

On August 31, 2011 the ACHP responded to the request, "we do not believe that our participation in the consultation to resolve adverse effects is needed . . ." (Johnson 2011) **(Figure 2)**

Resolution of Adverse Effect to B & O Freight Building/Longworth Hall

As documented by the enclosed agreement, *Draft Memorandum of Agreement Between the Federal Highway Administration, the Ohio Department of Transportation, the Ohio State Historic Preservation Office, Regarding the HAM-71/75-0.00/0.22, PID 75119, Brent Spence Bridge Replacement/Rehabilitation Project, Hamilton County, Ohio and Kenton County, Kentucky, Adverse Effect to the B & O Freight and Storage Building/Longworth Hall, Listed on the National Register of Historic Places (86003521), 700 Pete Rose Way (Second Avenue), Cincinnati, Ohio (ODOT Agreement Number 16829),* FHWA intends to formalize the resolution of the adverse effects of the

undertaking in two separate Memorandum of Agreements, one applicable to the adverse effects in Ohio and one applicable to the adverse effects in Kentucky, due to the complexity of the adverse effects of the undertaking.

The Section 106 consultation meetings, for the resolution of the adverse effect to the B & O Freight Building/Longworth Hall, will provide an opportunity for the agency officials and Section 106 consulting parties to discuss the results of the report, *Brent Spence Bridge Replacement/Rehabilitation Project, Longworth Hall Impact Analysis Report, Part Three: Potential Mitigation Measures, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011*), and in the identification of measures to resolve the adverse effect.

Section 106 Effect on Historic Properties

In addition to the B & O Freight Building/Longworth Hall, listed on the NRHP, the following historic properties were identified as a result of Section 106 consultation and Phase I and Phase II history/architecture investigations, within the area of potential effects in Ohio. Documentation of the Section 106 consultation conducted to date, between the OSHPO and ODOT, is provided by **Figure 3**.

Resource	Section 106 Effect
Western Hills Viaduct Subway Tunnel Portals	No effect
West McMicken Avenue HD (as proposed by Cincinnati Preservation)	No effect
HAM-1709-40 (Chem-Pak, Inc. Building), 2261 Spring Grove Avenue	No effect
Western Hills Viaduct (SFN 3105458)	No Adverse Effect
Brighton Bridge (SFN 3101533)	No effect
HAM-7366-28 (High-Craft Printing Company), 1120 Harrison Avenue	No effect
HAM-2164-28 revised to HAM-6332-40 (Central Trust/Brighton Office), 1110 Harrison Avenue	No effect
HAM-1462-06 (Rummane Building), 635 Kress Alley	No effect
HAM-0484-06, 650 West McKicken Avenue	No effect
Dayton Street HD (NRHP 73001457)	No effect
Our Lady of Mercy/Cincinnati Jobs Corp (NRHP 80003070), 1409 Western Avenue	No effect
Cincinnati Union Terminal (NHL & NRHP 72001018)	No effect
HAM-1342-43 (Harriet Beecher Elementary School/Stowe Adult Education Center 635 West 7th Avenue	No effect
West Fourth Street HD and Amendment (NRHP 766001443 & 79001861)	No effect
John M. Mueller, Sr. House, 724 Mehring Way	No effect
Ohio National Guard Armory (Demolished) (NRHP 80003069), 1437-1439 Western Avenue	No effect

Section 106 Effect – Archaeology – Ohio

On October 15, 2010, FHWA, with ODOT as their agent determined the undertaking contained no potential for intact archaeological resources due to extensive highway construction and/or sequential urban development and redevelopment **(Figure 3)** pursuant to the *Programmatic Agreement Among the Federal Highway Administration, The Advisory Council on Historic Preservation, The Ohio Historical Society, State Historic Preservation Office, And The State*

of Ohio, Department of Transportation Regarding The Implementation Of The Federal-Aid Highway Program In Ohio (Agreement No. 12642) executed July 17, 2006 with the following exceptions:

- The residential lots associated with the West McMicken Street Historic District would merit archaeological testing for stratified late 19th century deposits if one of the interchange reconfiguration alternatives were chosen (see Figure 3). That particular interchange reconfiguration alternative was not chosen and the West McMicken Street Historic District will not be affected by the undertaking.
- The 1920s Cincinnati subway tunnel would require evaluation for listing on the NRHP if a particular interchange reconfiguration alternative were chosen. An environmental commitment to avoid the Cincinnati subway tunnels and portals will be included in the environmental document and in the construction plans for the project. Therefore, these resources will not be affected by the undertaking.
- It was recommended that soil and geotechnical borings conducted during the design phase in the river bottom area be monitored and/or reviewed by and archaeologist or geoarchaeologist for evidence of buried archaeological deposits and/or undisturbed original landforms. If either are determined to be present, an archaeological testing strategy would need to be designed and implemented for the horizontal and vertical footprint of the bridge supports and construction work limits. An environmental commitment to conduct this work during the design phase will be included in the environmental document.

No further archaeological investigations are warranted at this time. The OSHPO and the ODOT-OES will be provided an opportunity to review the final design. An environmental commitment to allow OSHPO an opportunity to comment on the final design plans will be included in the environmental document.

Conclusion

Based on the Section 106 consultation to date, FHWA, with ODOT as their agent, request the OSHPO's concurrence a finding of "adverse effect" is applicable to the subject undertaking's effect on the B & O Freight Building/Longworth Hall, listed on the NRHP. In accordance with 36 CFR § 800, FHWA will continue to consult with the agency officials and consulting parties in regard to the Section 106 effect of the undertaking on historic resources and in the resolution of Section 106 adverse effects. Measures to minimize harm to historic properties will continue to be incorporated into the project development process. In addition, the OSHPO and consulting parties will be provided an opportunity to review and comment on the refined design as the process progresses. Questions or comments should be directed to Timothy Hill, Administrator, ODOT Office of Environmental Services, at 614-644-0377.

Respectfully,

Timothy M. Hill
Administrator
Office of Environmental Services

OHIO STATE HISTORIC PRESERVATION OFFICE CONCURRENCE:

10.31.11
DATE

Enclosures
TMH:sg

Mark Vonder Embse, FHWA, w/att.
Najah Duvall-Gabriel, ACHP, w/att.
Stefan Spinosa, ODOT-District 8, w/att.
Project file

Appendix B
Identification and Evaluation of Alternatives Considered Prior to the Environmental Assessment

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1.0 INTRODUCTION

Development of conceptual alternatives for the Brent Spence Bridge was initiated in 2003 by KYTC. These initial alternatives were documented in the *Feasibility and Constructability Study of the Replacement/Rehabilitation of the Brent Spence Bridge* (May 2005). This report recommended a series of potential feasible build alternatives for replacement and/or rehabilitation of the Brent Spence Bridge structure and improvement to its approaches and surrounding transportation system. Six conceptual alternatives were recommended for further study.

In 2006, the Ohio Department of Transportation (ODOT) and the Kentucky Transportation Cabinet initiated the current Brent Spence Bridge Replacement/Reconstruction Project. The project is following ODOT's Major Project Development Process (PDP). The following sections discuss the alternatives that were developed, evaluated, eliminated and recommended for further study throughout ODOT's Major PDP.

1.1 Step 4 Conceptual Alternatives

In 2006, 25 conceptual alternatives, including the No Build Alternative, were developed in Step 4 of ODOT's PDP. These 25 conceptual alternatives included the six alternatives from the 2005 *Feasibility and Constructability Study of the Replacement/Rehabilitation of the Brent Spence Bridge*. The 25 conceptual alternatives were evaluated using a two-phased screening process based on a comparative analysis. Phase one of the analysis was an evaluation of the conceptual alternatives based on the goals of the purpose and need and comments received from local governments. In phase two of the analysis, the conceptual alternatives that were not eliminated in phase one were evaluated using stakeholder goals and measures of success; design compatibility with the I-75 Mill Creek Expressway Project (HAM-75-2.30) to the north; and concurrence among government agencies obtained through a series of meetings. Some alternatives were combined into hybrid alternates and then evaluated in phase two of the analysis. The *Planning Study Report* (September 2006) documented the 25 conceptual alternatives and the two-phased comparative analysis.

The two-phased comparative analysis eliminated 19 of the 25 conceptual alternatives from further study and evaluation These 19 conceptual alternatives failed to meet the purpose and need goals of the project and did not adequately address the stakeholder's goals and measures of success. Additionally, these alternatives would not be compatible with the I-75 Mill Creek Expressway Project (HAM-75-2.30). Five travel lanes were needed to provide a seamless connection between the two projects.

At the end of Step 4 of the PDP, a total of six conceptual alternatives, the No Build and five mainline Build Alternatives were recommended for further study in Step 5 of the PDP. The No Build Alternative was retained as a baseline for evaluation of the Build Alternatives. The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. The five mainline Build Alternatives recommended for further study in the *Planning Study Report* were:

- Mainline Alternative 1 - Queensgate Alignment for I-75
- Mainline Alternative 2 - Queensgate Alignment for I-71/I-75
- Mainline Alternative 3 - New Bridge Just West for I-75
- Mainline Alternative 4 - New Bridge Just West for all Traffic
- Mainline Alternative 5 - Construct New Bridges for I-75

A variety of sub-alternatives were developed to provide options for key intersection and traffic flow areas within the project corridor. The various sub-alternatives accommodated the design requirements of the mainline Build Alternatives:

- I-75 Northbound at KY 12th Street Ramp Sub-Alternatives
- I-71/US 50 Interchange Sub-Alternatives (for I-75 Queensgate Alignment)
- I-71/I-75/US 50 Interchange Sub-Alternatives
- I-75 Ohio C-D Road/Arterial Improvement Sub-Alternatives
- Western Hills Viaduct Interchange Sub-Alternatives

Detailed descriptions of the mainline Build Alternatives and the various sub-alternatives are presented in the *Planning Study Report*. These mainline Build Alternatives and sub-alternatives were carried forward into Step 5 of the PDP for further study and refinement.

1.2 Step 5 Conceptual Alternatives

The five mainline Build Alternatives and sub-alternatives were further developed in more detail and refined during Step 5 of the PDP. These efforts included environmental studies, traffic analysis, refinement of horizontal and vertical alignments, cost estimates, utilities coordination, and stakeholder coordination. As a result, the mainline Build Alternatives and sub-alternatives from Step 4 as presented in the *Planning Study Report* evolved into eight conceptual alternatives. The eight conceptual alternatives were identified as Alternatives A through H:

- Alternative A (Alternative 1, I-71/US 50 Interchange Sub-Alternative 1, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*)
- Alternative B (Alternative 2, I-71/US 50 Interchange Sub-Alternative 2, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*)
- Alternative C (Variation of Alternative 3, I-71/I-75/US 50 Interchange Sub-Alternative, 1, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*)
- Alternative D (Variation of Alternative 3, I-71/I-75/US 50 Interchange Sub-Alternative 3, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*)
- Alternative E (Variation of Alternative 3, I-71/I-75/US 50 Interchange Sub-Alternative 3, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*)
- Alternative F (Variation of Alternative 4, I-71/I-75/US 50 Interchange Sub-Alternative 2, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*)

- Alternative G (Variation of Alternative 4, I-71/I-75/US 50 Interchange Sub-Alternative 3, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*)
- Alternative H (Alternative 5 from the *Planning Study Report*)

The comparative analysis of the eight conceptual alternatives eliminated some of the alternatives, including Alternatives A, F, and H. Alternatives A and H were eliminated from further consideration due to fatal flaws, which were identified as the alternatives were developed in more detail. Alternative A's fatal flaw was that it was developed as an avoidance alternative to avoid having a direct impacts to the Longworth Hall building which was unable to be accomplished due to the need to take part of the building to construct I-71 southbound. Alternative H fatal flaw was that it was developed to have new bridges built along both sides of the existing Brent Spence Bridge, but the connections to the eastern bridge were unable to be made within Ohio due to geometric design problems. Alternative F was eliminated from further consideration because it was very similar to Alternative G and did not provide any additional benefit. Alternatives evaluated throughout Step 5 were Alternatives B, C, D, E, and G. These five alternatives were compared for their ability to meet the project's purpose and need, impacts, constructability, and estimated costs. Impacts were determined using the construction limits of each alternative.

The Conceptual Alternatives Evaluation Matrix provides a summary of impacts of the No Build Alternative and each conceptual alternative. The following sections present summary discussions of, each conceptual alternative and recommendations for feasible alternatives to be carried forward and studied in Step 6 of the PDP.

It is important to note that ODOT's PDP establishes specific steps that begin with a broad range of conceptual alternatives which are evaluated with broad environmental, engineering and cost information. As the alternatives are refined through the PDP, so are the data used in the comparative analyses of the alternatives.

1.2.1 Alternative B

Alternative B shown in Exhibit A1 is the former Alternative 2, I-71/US 50 Interchange Sub-Alternative 2, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*. It is also known as the "Queensgate alignment". Alternative B is different from the conceptual Alternatives C, D, E, and G between the limits of KY 12th Street and Ezzard Charles Drive. Alternative B south of KY 12th Street has six lanes northbound and six lanes southbound. Access into Covington will be provided by a C-D roadway which will connect to the existing Brent Spence Bridge. A new bridge will be constructed west of the existing Brent Spence Bridge for I-71/I-75 traffic. The new bridge will be approximately 900 feet west of the existing bridge on a skew across the river. This new alignment passes through the Queensgate area of Cincinnati and reconnects to the existing I-75 alignment near Ezzard Charles Drive. I-71/I-75 consists of four lanes in each direction within Kentucky. Both I-71 and I-75 will consist of two lanes in each direction in Ohio. US 50 will be realigned in Ohio within the existing I-71/I-75/US 50 interchange area. The existing Brent Spence Bridge will be rehabilitated to carry local C-D roadway traffic consisting of two lanes southbound and three lanes northbound. Western and Winchell avenues will be improved to carry local traffic.

1.2.1.1 Alternative B Evaluation

Alternative B is unique from the other conceptual alternatives because it follows a new alignment across the Ohio River and through the Queensgate area of Cincinnati. For I-71/I-75, a new bridge will be constructed approximately 900 feet west of the existing Brent Spence Bridge for I-71/I-75 traffic only. The alignment will pass through the Queensgate area and re-connect with the existing I-75 alignment near the Freeman Avenue Interchange. The new bridge across the Ohio River will have a middle span length of approximately 1,650 feet with end spans of approximately 650 feet in length. The approach structures to the new bridge would consist of approximately 13,000 feet of additional bridge structure as compared to the other alternatives.

Future (2035) traffic projections indicate similar levels of future congestion and delay on mainlines of the conceptual alternatives. When reviewing freeway segments and ramp junctions, Alternative B operates comparable to Alternatives C, D, and G as each of these alternatives generally provide the same number of lanes in each direction. Constructability and construction phasing issues are also similar among the alternatives although concerns have been expressed about risk and uncertainty with Alternative B. On February 12, 2009, a constructability workshop was held where participants concluded that Alternative B posed significant construction difficulties. These issues include accessibility and logistics for constructing the I-71 connector ramps to the new bridge alignment, relocation of transmission lines, slope stability on the south side of the Ohio River, and the greater possibility of encountering hazardous materials, buried objects, differing site conditions, and any other unknowns.

Environmental impacts expected for Alternative B are comparable to the other conceptual alternatives' impacts. Alternative B would impact three wetland areas, 11 woodlots, one threatened and endangered species potential habitat area, and four historic and five Section 4(f) resources. Alternative B would be located adjacent to the historic boundary of Longworth Hall and within 37 feet of the west end of the building. All other conceptual alternatives would have a direct impact to the eastern portion of this structure.

Alternative B requires the acquisition of 72.2 acres of additional land for right of way. This is more than 2.5 times the amount of land needed for any of the other conceptual alternatives. The community impacts of Alternative B include disruption of the West Covington neighborhood and loss of businesses in Queensgate. Alternative B would impact community cohesion in the Queensgate area by placing a new alignment through the neighborhood. Alternative B would displace 43 residential units and 34 businesses, which would affect approximately 1,900 employees. It would have 74 partial property takes. These would cause direct loss of property tax revenues to cities. KYTC and ODOT conducted a survey to determine whether these displaced business would remain in the area. In Kentucky, one business stated they would relocate out of the state while two businesses indicated they would close. In Ohio, the majority of businesses that responded to the survey indicated that they would not relocate outside of Cincinnati if impacted. The largest employer in the Queensgate area, United Parcel Service employing 919 people, indicated that they would relocate their operation outside of Cincinnati if displaced by the project.

As part of the public involvement process, both cities of Covington and Cincinnati have documented their opposition to Alternative B based on impacts to community services, loss of property values and taxes, and displacements of residences and businesses. The City of Covington specifically opposes the potential for impacts in West Covington as noted in a letter

dated October 8, 2008, while the City of Cincinnati opposes the loss of businesses in the Queensgate area and loss of potential redevelopment opportunities. Further, the City of Cincinnati prepared a report entitled *Queensgate Area Issues, Considerations and Recommendations for Implementation of the Brent Spence Bridge Project* (September 2008), which describes the potential impacts that Alternative B would have on the Queensgate area. Within the Queensgate area, Alternative B would not use existing land uses in a way that is compatible with land use plans and would pass through areas where there are plans for redevelopment. Alternative B would result in the loss of future jobs and tax base in Queensgate due to impacts on redevelopment anticipated as a result of implementing the *Queensgate South Redevelopment Plan*. The fully executed plan is projected to generate 500 to 750 new jobs in the area.

Alternative B would directly impact three Section 4(f) resources: Goebel Park, the residence at 632 Western Avenue in Covington, and the Lewisburg Historic District. Alternative B would encroach upon the western edge of Goebel Park. Alternative B would encroach upon the Lewisburg Historic District along its eastern border and impact 2.4 acres of the historic district. It would displace eight residences adjacent to the west side of I-71/I-75. One of these residences is a non-contributing property to the historic district and seven residences are contributing properties to the historic district. Alternative B would displace the residence at 632 Western Avenue. Alternative B could have noise and visual impacts on two other Section 4(f) resources, the residences at 521 Western Avenue and 881 Highway Avenue in Covington.

Alternative B impacts a total of 58 individual utilities, the greatest number of utility impacts of the conceptual alternatives. This is the only alternative that would not displace Duke Energy's West End Substation, which is located just west of the existing Brent Spence Bridge. However, it does require the relocation of major transmission lines and towers prior to construction of the bridge. This relocation would add two years to the construction period, which would add approximately $240 million in inflation to the estimated $2.86 billion project cost. Over this two year period, the level of service for the interstate system would continue to worsen.

Alternative B has the highest potential of the conceptual build alternatives to impact hazardous material sites because of its location through the Queensgate area. This area of Cincinnati has a history of industrial land use. Alternative B would impact approximately 50 percent more sites with hazardous material concerns than Alternatives C, D, E, and G due to their location within the existing highway right of way.

Alternative B would cost an estimated $2.86 billion, which is at least $150 million more than any of the other conceptual alternatives. The estimated cost for Kentucky is $1.75 billion and the estimated cost for Ohio is $1.11 billion. The estimated costs for Alternative B are higher than conceptual Alternatives C, D, E, and G due to right of way acquisition and utility relocation.

Based on the adverse impacts to communities, residences, businesses, hazardous material sites, utilities and property acquisition associated with Alternative B, as well as the overall complexity, constructability risk, and cost, it was recommended that Alternative B be eliminated from further consideration.

1.2.2 Alternative C

Alternative C shown in Exhibit A2 is a variation of the former Alternative 3, I-71/I-75/US 50 Interchange Sub-Alternative 1, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*. Alternative C south of

KY 12th Street has six lanes northbound and six lanes southbound. A local C-D roadway is provided from KY 12th Street to the Ohio River. A new double deck bridge will be built just west of the existing Brent Spence Bridge for I-75 (two lanes in each direction), two lanes for southbound I-71 and two lanes for southbound local traffic. The existing Brent Spence Bridge will be rehabilitated to carry two lanes for northbound I-71 and three lanes for northbound local traffic. Alternative C reconfigures I-75 through the I-71/I-75/US 50 Interchange and eliminates all access to and from I-75 from KY 12th Street to just south of Ezzard Charles Drive in the northbound direction. Between Ezzard Charles Drive and the Western Hills Viaduct, northbound I-75 will have five lanes, southbound I-75 will have two lanes, and the local southbound C-D roadway will have four lanes, for a total of 11 travel lanes. Western and Winchell avenues will be improved to carry local traffic.

Alternatives C and D were developed based on the former Alternative 3 with very slight difference between them. The differences permitted the opportunity to evaluate how slight changes in horizontal and vertical configurations affected the flow of traffic with respect to level of service. The major difference between Alternatives C and D is the location and configuration of the C-D roadways in Ohio.

1.2.2.1 Alternative C Evaluation

The alignment of Alternative C provides a new bridge just west of the existing Brent Spence Bridge similar to Alternatives D, E, and G. Alternative C provides interstate access to both Covington and Cincinnati. Alternatives C and D provide a separation of local and regional traffic in both downtown areas through the use of C-D roadways.

Access into Covington from the interstate would be provided by the local C-D roadway at KY 12th Street for northbound traffic and at KY 9th Street for southbound traffic. Access to the interstate system from Covington will be provided at Pike Street for northbound traffic and at KY 12th Street for southbound traffic.

Access to downtown Cincinnati would be made through a series of C-D roadways that would require a decision point outside of the downtown area. In the northbound direction just north of the existing Brent Spence Bridge, the C-D roadway lane configuration is combined on a single structure between the OH 2nd Street diverge and the OH 5th Street diverge. Utilizing a single structure in this area simplifies the vertical geometric design, reduces costs, and would be easier to construct as compared to Alternative D, which utilizes three structures in this area. A negative aspect to combining the lane configuration onto a single structure is that it would introduce a weave movement north of OH 5th Street from traffic coming from I-71 southbound traveling towards the Western Hills Viaduct. Upon analyzing the weave movement, no degradation of level of service was noted.

In the southbound direction, the Alternative C C-D roadway lane configuration is located west of I-75 north of Ezzard Charles Drive, similar to Alternative D. Upon passing under Ezzard Charles Drive, the southbound C-D roadway using a bridge crosses over I-75 which allows it to be located adjacent to the northbound C-D roadway. The intent was to isolate I-75 from the C-D roadways. Several design issues became apparent as a result. Crossing over I-75 created vertical geometry complications with steep grades, as underground utilities prevented I-75 from being lowered. Traffic entering from Western Avenue could no longer access I-71 northbound or US 50 eastbound. The ramp to OH 5th Street had to be eliminated due to limited horizontal separation between the two C-D roadways, which is needed to allow the OH 5th Street ramp to

pass under US 50 and then cross over the northbound C-D roadway. The southbound C-D roadway remains on the west side in Alternative D in this area.

Future (2035) traffic projections indicate similar levels of future congestion and delay on the mainline as compared to Alternatives B, D, and G. Alternative C provides for more efficient traffic flow over the No Build Alternative when reviewing operations at basic freeway segments and ramp junctions. It does not provide the region with the most efficient traffic flow on its own. Portions of this alternative combined with another alternative may provide better traffic flow on the interstate and provide better connections to local roads. Constructability and construction phasing issues are also similar among the alternatives.

Alternative C requires approximately 22.2 acres of additional right of way. This is the second least amount of land impacted by the conceptual alternatives. Alternative C would displace 16 residential units and 35 businesses. Approximately 300 employees would be affected by this alternative. Alternative C, as with Alternatives D, E, and G, would impact Longworth Hall which includes 21 businesses. Alternatives C, D, E, and G have similar environmental impacts because they are all located within the existing transportation corridor. Alternative C would impact three wetland areas, 10 woodlots and one potential threatened and endangered species habitat area, four community resources, three historic resources, and five Section 4(f) properties.

Alternative C would be compatible with existing land use plans and would not have a negative impact on community cohesion. Alternative C would be constructed within the existing interstate corridor and not bisect neighborhoods in Kentucky or Ohio. Alternative C would support the Queensgate redevelopment plans and help Cincinnati facilitate its economic renewal goals.

Since the alignment of Alternative C would be located just west of the existing Brent Spence Bridge, it would impact a portion of the Duke Energy West End substation and require the relocation of 52 individual utility facilities.

Alternative C would directly impact four Section 4(f) resources. These include Goebel Park, the Lewisburg Historic District, Longworth Hall, and the Queensgate playground and ballfields. Alternative C could have noise and visual impacts on one Section 4(f) resource, the Harriet Beecher Stowe Elementary School (Fox 19 Television Station).

Alternative C would encroach upon the Lewisburg Historic District along its eastern border and directly impact 0.83 acres of the historic district. It would displace 10 residences adjacent to the west side of I-71/I-75. One of these residences is a non-contributing property to the historic district and nine residences are contributing properties to the historic district. Alternative C would directly impact 0.25 acres of Longworth Hall resource including the building and historic boundary. The eastern end of the building would be demolished.

Alternative C would cost an estimated $2.28 billion, which is one of the least expensive alignments of the conceptual alternatives due to lower construction costs, less right of way, and lower costs for utility relocation. The estimated cost for Kentucky is $1.41 billion and the estimated cost for Ohio is $0.87 billion.

Based on the estimated cost, design features described above and the local access features, it was recommended that the northbound portion of Alternative C advance for further

consideration, while the southbound portions of this alternative be eliminated from further consideration. It was recommended that the northbound portion of Alternative C be combined with the southbound portion of Alternative D to create a hybrid alternative for further evaluation.

1.2.3 Alternative D

Alternative D shown in Exhibit A3 is a variation of the former Alternative 3, I-71/I-75/US 50 Interchange Sub-Alternative 3, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*. Alternative D south of KY 12th Street has six lanes northbound and six lanes southbound. A local C-D roadway will provide access into Covington between KY 12th Street and the Ohio River. A new double deck bridge will be built just west of the existing Brent Spence Bridge I-75 (two lanes in each direction), two lanes for southbound I-71, and two lanes for southbound local traffic. The existing Brent Spence Bridge will be rehabilitated to carry two lanes for northbound I-71 and three lanes for northbound local traffic. Alternative D reconfigures I-75 through the I-71/I-75/US 50 Interchange and eliminates all access to and from I-75 from KY 12th Street to just south of Ezzard Charles Drive in the northbound direction. In Ohio, between Ezzard Charles Drive and the Western Hills Viaduct there will be a total of 11 travel lanes for I-75 and local southbound traffic. Western and Winchell avenues will be improved to carry local traffic.

As previously noted, Alternatives C and D were developed based on the former Alternative 3 with very slight difference between them. The major difference between Alternatives C and D is the location and configuration of the C-D roadways in Ohio.

1.2.3.1 Alternative D Evaluation

The alignment of Alternative D provides a new bridge alignment just west of the existing Brent Spence Bridge similar to Alternatives C, E, and G. Alternative D provides interstate access to both Covington and Cincinnati. Like Alternative C, Alternative D provides a separation of local and regional traffic through the use of a C-D roadway.

Alternative D would keep one direct exit to Covington in place per the north and south bound directions, south of the current KY 5th Street exit. Access into Covington from the interstate will be provided by the local C-D roadway at KY 12th Street for northbound traffic and at KY 9th Street for southbound traffic. Access to the interstate system from Covington will be provided at KY 9th Street for northbound traffic and at KY 12th Street for southbound traffic.

Access to downtown Cincinnati will be made through a series of C-D roadways that would require a decision point outside of the downtown area. In the northbound direction, the C-D roadway lane configuration was split among three structures between the OH 2nd Street diverge and the OH 5th Street diverge to simplify the horizontal configuration to reduce the number of weave movements. Utilizing multiple structures, complicated the vertical geometric design, increased the cost, and is more complicated to construct. This design would not provide a better level of service compared to Alternative C. The vertical alignment of this alternative would require OH 3rd Street to be lowered approximately eight feet, west of Central Avenue due to the northbound C-D roadway lane configuration being split among three structures. This lowering would require complex and expensive retaining walls and the relocation of underground utilities.

In the southbound direction, the C-D roadway remains west of I-75. Traffic entering from Western Avenue will have access to I-71 northbound and US 50 eastbound, by using a weave condition. The ramp access to OH 5th Street will remain.

Future (2035) traffic projections indicate similar levels of future congestion and delay on the mainline as compared to Alternatives B, C, and G. Alternative D provides for more efficient traffic flow over the No Build Alternative when reviewing operations at basic freeway segments and ramp junctions. It does not provide the region with the most efficient traffic flow on its own. Various parts of this alternative combined with parts of another alternative may provide better traffic operations on the interstate and provide better connections to local roads. Constructability and construction phasing issues are also similar among the alternatives.

Environmental and community impacts resulting from Alternative D are the lowest of the conceptual alternatives. Alternative D would require approximately 19.7 acres of new right of way and would displace 16 residential units and 34 businesses. Alternative D, as with Alternatives C, E, and G would impact Longworth Hall which includes 21 businesses. Alternative D requires the fewest number of residence and business employee relocations. Alternative D would impact three wetland areas, 10 woodlots, one potential threatened and endangered species habitat area, four community resources, two historic properties, one historic district, and five Section 4(f) properties.

Alternative D would be compatible with existing land use plans and would not have a negative impact on community cohesion. Alternative D would be constructed within the existing interstate corridor and not bisect neighborhoods in Kentucky or Ohio. Alternative D would support the Queensgate redevelopment plans and help Cincinnati facilitate its economic renewal goals.

Since the alignment of Alternative D would be located just west of the existing Brent Spence Bridge, it would impact a portion of the Duke Energy West End substation and require the relocation of 52 individual utility facilities.

Alternative D would directly impact four Section 4(f) resources Goebel Park, the Lewisburg Historic District, Longworth Hall, and the Queensgate playground and ballfields. It could have visual and noise impacts on one Section 4(f) resource, the Harriet Beecher Stowe Elementary School (Fox 19 Television Station).

Alternative D would encroach upon the Lewisburg Historic District along its eastern border and impact 0.88 acres of the historic district. It would displace 10 residences adjacent to the west side of I-71/I-75. One of these residences is a non-contributing property to the historic district and nine residences are contributing properties to the historic district. Alternative D would impact 0.25 acres of Longworth Hall resource including the building and historic boundary. The eastern end of the building would be demolished.

Alternative D would cost an estimated $2.28 billion, which is one of the least expensive alignments of the conceptual alternatives. The estimated cost for Kentucky is $1.41 billion and the estimated cost for Ohio is $0.87 billion. Alternative D and Alternative C are the least expensive of the five conceptual alternatives due to lower construction costs, less right of way, and lower costs for utility relocation.

Based on the estimated cost, design features described above and the local access features, it was recommended that the southbound portion of Alternative D advance for further consideration, while the northbound portion of this alternative be eliminated from further

consideration. It was recommended that the southbound portion of Alternative D be combined with the northbound portion of Alternative C to create a hybrid alternative for further evaluation.

1.2.4 Alternative E

Alternative E shown in Exhibit A4 is a variation of the former Alternative 3, I-71/I-75/US 50 Interchange Sub-Alternative 3, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*. Alternative E south of KY 12th Street has six lanes northbound and six lanes southbound. Alternative E provides two access points into Covington for both northbound and southbound traffic. A local C-D roadway will be provided from KY 12th Street to the Ohio River. A new double deck bridge will be built just west of the existing Brent Spence Bridge to carry northbound and southbound I-71 and I-75 traffic. On the upper deck, I-71 southbound will have three lanes and I-71 northbound will have two lanes. On the lower deck, I-75 will have three northbound and three southbound lanes. The existing Brent Spence Bridge will be rehabilitated to carry northbound and southbound local traffic with two lanes in each direction as this number of lanes provides an acceptable level of service. In Ohio, Alternative E reconfigures I-75 through the I-71/I-75/US 50 Interchange and eliminates some of the existing access points along I-75. The existing direct connections between I-75 to westbound US 50 and from eastbound US 50 will be maintained in Alternative E. Between Ezzard Charles Drive and Western Hills Viaduct, southbound I-75 will have six lanes, northbound I-75 will have five lanes, and there will be one auxiliary lane to the Western Hills Viaduct. Western and Winchell avenues will be improved to carry local traffic.

1.2.4.1 Alternative E Evaluation

The alignment of Alternative E is similar to Alternatives C, D, and G in that it provides a new bridge alignment just west of the existing Brent Spence Bridge. Alternative E provides two direct access points to Covington in both the northbound and southbound directions. In the northbound direction, access will be provided by the local C-D roadway at KY 12th Street and KY 5th Street. In the southbound direction, access will be provided by the local C-D roadway at KY 5th Street, and off of I-71 and I-75 at KY 9th Street. Access to the interstate system from Covington will be provided by local city streets. In the northbound direction, access to I-75 will be provided at KY 9th Street, access to I-71 will be provided at KY 5th Street. Access to I-75 northbound will also be provided at KY 4th and 5th Streets through the local C-D roadway across the lower deck of the existing Brent Spence Bridge. In the southbound direction, access to I-71/I-75 will be provided at KY 5th Street and KY 12th Street.

All access to downtown Cincinnati from I-75 will be provided by a C-D roadway that would require a decision point outside of the downtown area, KY 12th Street for northbound traffic and just south of Ezzard Charles Drive for southbound traffic. Access to I-75 northbound will be provided at OH 4th and 6th streets through the local C-D roadway and at OH 9th Street through Winchell Avenue. Southbound I-75 access will be provided at Western Avenue, OH 8th Street, and OH 4th Street through the local C-D roadway across the upper deck of the existing Brent Spence Bridge.

Future (2035) traffic projections indicate similar levels of future congestion and delay on the mainline as compared to Alternatives B, C, and G except for the I-75 mainline when I-75 consists of three lanes in each direction. When reviewing the level of service at basic freeway segments and ramp junctions, Alternative E operates better overall than all of the other alternatives. Notable improvements for I-75 level of service (LOS) were: LOS F to D in the northbound PM peak hour, LOS E to D in the southbound AM peak hour, and LOS D to C in the southbound PM peak hour. The improved traffic flow will aid in the reduction of traffic crashes,

reduce delay and travel times throughout the region. Constructability and construction phasing issues are also similar among the alternatives.

When compared to Alternatives C, D, and G, Alternative E is expected to have similar environmental impacts. Alternative E would impact three wetland areas, 10 woodlots and one potential threatened and endangered species habitat area. Alternative E would impact three community resources, two historic resources, one historic district, and four Section 4(f) properties. This is slightly fewer impacts than other conceptual alternatives. Alternative E would displace 19 residential units and 39 businesses, which is the fewest number of people displaced among alternatives. Alternative E, as with Alternatives C, D, and G, would impact Longworth Hall which includes 21 businesses. In addition, the 19 residential units estimated to be displaced to build Alternative E is expected to result in the fewest number of people displaced.

Alternative E would be compatible with existing land use plans and would not have a negative impact on community cohesion. Alternative E would be constructed within the existing interstate corridor and not bisect neighborhoods in Kentucky or Ohio. Alternative E would support the Queensgate redevelopment plans and help Cincinnati facilitate its economic renewal goals.

Since the alignment of Alternative E would be located just west of the existing Brent Spence Bridge, it would impact a portion of the Duke Energy West End substation and require the relocation of 52 individual utility facilities.

Alternative E would directly impact three Section 4(f) resources Goebel Park, the Lewisburg Historic District, and Longworth Hall. It could also have noise and visual impacts on one Section 4(f) resource, the Harriet Beecher Stowe Elementary School (Fox 19 Television Station).

Alternative E would encroach upon the Lewisburg Historic District along its eastern border and impact 0.98 acres of the historic district. It would displace 11 residences adjacent to the west side of I-71/I-75. One of these residences is a non-contributing property to the historic district and 10 residences are contributing properties to the historic district. Alternative E would impact 0.54 acres of Longworth Hall resource including the building and historic boundary. The eastern end of the building would be demolished.

Alternative E would cost an estimated $2.58 billion, which is in the mid-range of the costs for the conceptual alternatives. The estimated cost for Kentucky is $1.65 billion and the estimated cost for Ohio is $0.93 billion. Only Alternatives C and D have lower estimated costs.

Alternative E was recommended and supported by the City of Covington. Based on the access provided by this alternative and the minimized amount of community impacts in comparison to other alternatives, it was recommended that Alternative E be advanced for further study as a feasible alternative. Based on the improved LOS, it was recommended to increase the number of lanes for I-75 mainline to three lanes in each direction due to the level of service improvements noted above.

1.2.5 Alternative G

Alternative G shown in Exhibit A5 is a variation of the former Alternative 4, I-71/I-75/US 50 Interchange Sub-Alternative 3, Hybrid of Collector-Distributor Roads Sub-Alternative 1 and Arterial Improvements Sub-Alternative 2 from the *Planning Study Report*. Alternative G south of

KY 12th Street has six lanes northbound and six lanes southbound. In Alternative G, there are two access points into Covington for both northbound and southbound traffic through a C-D roadway. Local city streets will provide access to the interstate system from Covington. A new double deck bridge will be built just west of the existing Brent Spence Bridge to carry northbound and southbound I-75 (two lanes in each direction), two lanes for southbound I-71, and two lanes for southbound local traffic. The existing Brent Spence Bridge will be rehabilitated to carry two lanes for northbound I-71 and three lanes for local traffic. Alternative G reconfigures I-75 through the I-71/I-75/US 50 Interchange and eliminates all access to and from I-75 between KY 12th Street to just north of Ezzard Charles Drive in the northbound direction. I-75 would be elevated from the Ohio River to just south of Linn Street for northbound and southbound traffic. In Ohio, the northbound C-D roadway will carry local traffic from the existing Brent Spence Bridge, provide access to US 50 and city streets, and reconnect to I-75 just north of Ezzard Charles Drive. In Ohio, the southbound C-D roadway will provide a new access point to the north end of the Clay Wade Bailey Bridge. Western and Winchell avenues will be improved to carry local traffic.

1.2.5.1 Alternative G Evaluation

The alignment of Alternative G is similar to Alternatives C, D, and E in that it provides a new bridge alignment just west of the existing Brent Spence Bridge. Alternative G provides two direct access points to Covington in both northbound and southbound directions. In the northbound direction, access will be provided by the local C-D roadway at KY 12th Street and KY 5th Street. In the southbound direction, access will be provided by the local C-D roadway at KY 5th Street and KY 9th Street. Access to the interstate system from Covington will be provided by local city streets. In the northbound direction, access to I-71 will be provided at KY 9th Street, and access to I-71/I-75 will be provided by the local C-D roadway at KY 4th Street. In the southbound direction, access to I-71/I-75 will be provided at KY 12th Street.

Alternative G eliminates all access to and from I-75 between KY 12th Street to just north of Ezzard Charles Drive in the northbound direction. Between KY 9th Street and Western Hills Viaduct there will be no access to southbound I-75. In Ohio, I-75 will be elevated from the Ohio River to just south of Linn Street. Existing connections to I-71, US 50, and downtown Cincinnati will be maintained. Direct local access from Cincinnati to I-75 will be provided by an exit at OH 9th Street. All other existing interstate access points in downtown Cincinnati will be made by way of C-D roadways.

Future (2035) traffic projections indicate similar levels of future congestion and delay on the mainline as compared to Alternatives B, C, and D. When reviewing the level of service at the basic freeway segments and ramp junctions, Alternative G operates better overall than the other alternatives, with the exception of Alternative E. Improvements to safety and traffic flow are some of the benefits of this alternative. Constructability and construction phasing issues are also similar among the alternatives.

Alternative G requires approximately 28.2 acres of new right of way. Alternative G would displace 31 residential units and 41 businesses, which would affect approximately 1,300 employees. The United Parcel Service, which employs 919 persons, is one of the businesses that would be impacted by Alternative G. Alternative G, as with Alternatives C, D, and E, would impact Longworth Hall which includes 21 businesses. When compared to Alternatives C, D, and E, Alternative G has similar environmental impacts. Alternative G would impact three wetland areas and ten woodlots, one potential threatened and endangered species habitat area;

four community resources, two historic properties, one historic district, and five Section 4(f) properties.

Overall, Alternative G supports local land use with the exception of the impact to UPS. Alternative G would not have a negative impact on community cohesion. Alternative G would be constructed mostly within the existing interstate corridor and not bisect neighborhoods in Kentucky or Ohio. Alternative G would support the existing Queensgate redevelopment plans and help Cincinnati facilitate its economic renewal goals.

Since the alignment of Alternative G would be located just west of the existing Brent Spence Bridge, it would impact a portion of the Duke Energy West End substation and require the relocation of 52 individual utility facilities.

Alternative G would directly impact four Section 4(f) resources Goebel Park, the Lewisburg Historic District, Longworth Hall, and the Queensgate playground and ballfields. It could also have noise and visual impacts on one Section 4(f) resource, the Harriet Beecher Stowe Elementary School (Fox 19 Television Station).

Alternative G would encroach upon the Lewisburg Historic District along its eastern border and impact 2.9 acres of the historic district. It would displace 12 residences adjacent to the west side of I-71/I-75. Two of these residences are non-contributing properties to the historic district and 10 residences are contributing properties to the historic district. Alternatives G would impact 0.42 acres of Longworth Hall resource including the building and historic boundary. The eastern end of the building would be demolished.

Alternative G would cost an estimated $2.70 billion, which is the second most expensive alignment of the five conceptual alternatives. Alternative B at $2.86 billion is the most expensive of all the conceptual alternatives. The estimated cost for Kentucky is $1.47 billion and the estimated cost for Ohio is $1.23 billion. Alternative G has the highest overall cost of the alternatives which follow the existing I-71/I-75 corridor.

Alternative G was recommended to be eliminated from further consideration due to the high costs of this alternative and the higher property acquisition associated with it. Alternative G would result in 31 residential and 41 business displacements. The business displacements would affect over 1,300 employees.

1.3 Recommended Feasible Alternatives

The *Conceptual Alternatives Study* (April 2009) from Step 5 recommended two feasible alternatives for further study in Steps 6 and 7. The two feasible alternatives consist of Alternative E and Alternative I, which is a combination of Alternatives C and D with certain design elements of Alternative G. The following summaries present the reasons why conceptual alternatives were eliminated from further consideration or recommended as feasible alternatives for further study:

- **Alternative B:** Based on the adverse impacts to communities, residences, businesses, hazardous material sites, utilities and property acquisition associated with Alternative B, as well as the overall complexity, constructability risk, and cost, it was recommended that Alternative B be eliminated from further consideration for the Brent Spence Replacement/ Rehabilitation Project.

- **Alternatives C and D:** It was recommended that a combination of Alternatives C and D be developed for further study in Step 6 as a feasible alternative. Based on the comparative analysis with respect to horizontal and vertical alignments, impacts, and the flow of traffic of Alternatives C and D, it was determined that a hybrid alternative of the northbound portion of Alternative C and the southbound portion of Alternative D be advanced for further consideration.

- **Alternative E:** It was recommended that Alternative E be developed for further study in Step 6 as a feasible alternative. This recommendation was based on the access provided by Alternative E to Covington and Cincinnati and the minimal amount of community impacts in comparison to the other alternatives. It was recommended to increase the number of lanes for I-75 to three lanes in each direction to support the improved level of service this alternative would provide.

- **Alternative G:** It was recommended that Alternative G be eliminated from further consideration due to the high costs, and residential and business displacements associated with this alternative. However, the following beneficial design features of Alternative G were carried forward for further analysis and incorporated into the feasible alternatives:

    - access to north end of Clay Wade Bailey Bridge from I-75 southbound using a C-D roadway and US 50 eastbound;
    - two access points into Covington;
    - access from a northbound C-D roadway from KY to I-71 northbound in Ohio; and
    - access ramp just north of Ezzard Charles Drive for Freeman Ave and local traffic to I-75 northbound.

The Conceptual Alternatives Evaluation Matrix provides a summary of impacts of the No Build Alternative and each conceptual alternative.

1.4 Feasible Alternatives

In Steps 6 and 7 the feasible alternatives, Alternatives E and I were developed in more detail. This included refinement of vertical and horizontal geometries, elimination of design exceptions, and connections to the local roadway network. Connections and improvements to local roads included adding travel lanes and turn lanes, which increased the right of way limits of both feasible alternatives. The recommendations from Step 5 were also incorporated into the design of the feasible alternatives. One recommendation was to increase the number of lanes on I-71/I-75 from four to six and to add full width shoulders along the mainline. This design change also increased the right of way limits of both feasible alternatives.

Alternative E and I are evaluated in the Environmental Assessment (EA) for the Brent Spence Bridge Replacement/Reconstruction Project. Alternative I is recommended as the Preferred Alternative. This recommendation is based on the design features, local access features, traffic operations, estimated costs, and environmental impacts.

Conceptual Alternatives Evaluation Matrix						
Impacts	**No Build**	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**	**Alternative G**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	**(Former Alternative 2)** Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 4 Hybrid)** Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Purpose and Need Elements						
Improve traffic flow and level of service in 2035	Does not improve traffic flow and level of service • Congestion will continue to worsen • I-71 majority of segments (43 of 50) LOS E or F • I-75 majority of segments (43 of 50) LOS E or F	Improves traffic and level of service over the No Build • I-71 majority LOS E or F segments • I-75 NB three LOS F segments • I-75 SB two LOS F segments • Improves congested sections	Improves traffic and level of service over the No Build • I-75 NB three LOS F segments • I-75 SB two LOS F segments • I-71 majority LOS E or F segments • Reduces congested segments	Improves traffic and level of service over the No Build • I-75 NB three LOS F segments • I-75 SB two LOS F segments • I-71 majority LOS E or F segments • Reduces congested sections	Improves traffic and level of service over the No Build • I-75 majority segments are LOS D or better • I-75 NB and SB two segments LOS F • I-71 majority segments of LOS E or F • Additional lanes for I-75 to reduce congestion through Covington and Cincinnati;	Improves traffic and level of service over the No Build • I-75 NB three LOS F segments • I-75 SB two LOS F segments • I-71 majority segments LOS E or F
Improve safety	Will not improve safety	Improves safety • Provides proper shoulder widths • Improves geometries • Separates local and interstate traffic to help reduce accident rates	Improves safety • Provides proper shoulder widths • Lower design speed for local C-D roadway help reduce accident rates	Improves safety • Provides proper shoulder widths • Improves geometry on I-75 to help reduce accident rates	Improves safety • Reduced congested sections, • Provides proper shoulder widths to help reduce accident rates	Improves safety • Reduced congested sections • Proper shoulder widths • Improved geometries help reduce accident rates
Correct geometric deficiencies	Will not correct geometric deficiencies	Corrects geometric deficiencies with design exceptions • I-71 remains geometrically deficient	Corrects geometric deficiencies with design exceptions • I-71 remains geometrically deficient • I-75, US 50 and local C-D roadway has several geometrically deficient locations	Corrects geometric deficiencies with design exceptions • I-71 remains geometrically deficient • US 50 geometrically deficient in several locations	Corrects geometric deficiencies with design exceptions • I-71 remains geometrically deficient • Local C-D roadway geometrically deficient in several locations	Corrects geometric deficiencies with design exceptions • I-71 remains geometrically deficient
Maintain and improve connections to local, regional, and national transportation corridors	Maintains but does not improve existing connections	Changes and improves connections • Local traffic separated from regional traffic on I-75 in Cincinnati and Covington • No direct connections to I-75 and I-71 through Queensgate area	Does not maintain all existing connections • Removes local connections to I-75 by using a C-D system from KY 12th Street to just south of Ezzard Charles Drive		Maintains and improves connections • Maintains access to I-75 and I-71 in Covington • uses a C-D system for local connections in Covington and Cincinnati • US 50 maintains direct access to interstate	Removes some local connections • Access provided to I-75 by using a C-D system in Cincinnati and Covington

Conceptual Alternatives Evaluation Matrix						
Impacts	**No Build**	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**	**Alternative G**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	**(Former Alternative 2)** Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 4 Hybrid)** Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Engineering						
Maintain and improve connections: Provides local access to/from the interstate	Provides local access to/from the interstate as it currently exists	Provides access to interstate by way of local C-D road • I-75 access between KY 12th Street and Ezzard Charles Drive Provides direct access to interstate • 1 direct access point to I-71 NB in KY at Pike Street	Provides access to interstate by way of local C-D road • I-75 access between KY 12th Street and Ezzard Charles Drive Provides direct access to interstate • 1 direct access point to I-71 NB in KY at Pike Street	Provides indirect access to interstate by way of local C-D road • I-75 access between KY 12th Street and Ezzard Charles Drive Provides direct access to interstate • 1 direct access point to I-71 NB at KY 9th Street	Provides indirect access to interstate by way of local C-D road • I-75 access KY 12th Street and Ezzard Charles Drive Provides direct access to interstate • 1 direct access point to I-71 NB in KY • 1 direct access point to I-75 NB in KY • Direct access to I-71/I-75 SB in KY at 5th Street	Provides indirect access to interstate by way of local C-D road • I-75 access KY 12th Street and Ezzard Charles Drive Provides direct access to interstate • 1 direct access point to I-71 NB at KY 9th Street
Maintain and improve connections: Provide direct access to Covington from I-75	Provides direct local access to/from the I-75 as it currently exists	Provides indirect access to Covington from I-75 by a C-D road • NB access at KY 12th Street • SB access at KY 9th Street	Provides indirect access to Covington from I-75 by a C-D road • NB access at KY 12th Street • SB access at KY 9th Street		Provides direct access to Covington • SB I-75 and SB I-71 access at KY 9th NB traffic Provides indirect access to Covington by C-D road • Access at KY 12th Street	Provides indirect access to Covington by C-D road • NB access at KY 12th and KY 5th streets • SB access at KY 5th and KY 9th streets
Maintain and improve connections: Maintain existing access points to I-75 in Cincinnati	Maintains local access to/from I-75 as it currently exists	Maintains local access to/from the interstate as it currently exists	Eliminates direct access to/from I-75; Access provided by C-D road • I-75 NB access eliminated between KY 12th Street to just south of Ezzard Charles Drive • I-75 SB access eliminated between KY 9th Street and the Western Hills Viaduct • Access provided by C-D road		Alters existing access to I-75 • Existing I-75 NB and SB access eliminated or reconfigured between KY 12th Street to just north of Ezzard Charles • Existing direct access to/from I-75 will remain but reconfigured at US 50	Eliminates direct access to/from I-75 • I-75 NB access eliminated between KY 12th Street to just north of Ezzard Charles Drive • I-75 SB access between KY 9th Street and the Western Hills Viaduct
Separates local and regional traffic	Does not separate Interstate system as it currently exists	Separates local and regional traffic • A new bridge for I-71/I-75 traffic will be constructed through Queensgate • Existing Brent Spence Bridge will be rehabilitated to carry local NB and SB traffic.	Separates local and regional traffic • A new bridge just west of the existing Brent Spence Bridge will be constructed to carry I-75 NB and SB, I-71 SB, and local SB traffic • Existing Brent Spence Bridge will be rehabilitated to carry I-71 NB and local NB traffic.		Separates local and regional traffic • A new bridge just west of the existing Brent Spence Bridge will be constructed to carry I-75 and I-71 NB and SB traffic • The existing Brent Spence Bridge will be rehabilitated to carry local NB and SB traffic.	Separates local and regional traffic • A new bridge just west of the existing Brent Spence Bridge will be constructed to carry I-75 NB and SB, I-71 SB, and local SB traffic • The existing Brent Spence Bridge will be rehabilitated to carry I-71 NB and local NB traffic.

Conceptual Alternatives Evaluation Matrix						
Impacts	**No Build**	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**	**Alternative G**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	**(Former Alternative 2)** Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 4 Hybrid)** Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Environmental Resources						
Wetlands – (number of wetland areas and total acreage impacted)	No impacts	3 wetland areas totaling 0.59 acres impacted in KY	3 wetland areas totaling 0.59 acres impacted in KY	3 wetland areas totaling 0.59 acres impacted in KY	3 wetland areas totaling 0.59 acres impacted in KY	3 wetland areas totaling 0.59 acres impacted in KY
Ohio River – (number of new bridge crossings and new piers in the river)	No impacts	• New bridge located 900 feet west of existing Brent Spence Bridge • Two piers located on north and south river banks, less than 10% of the piers will be in the river	• New bridge located 120 feet west of existing Brent Spence Bridge • Two new piers located in the river within 35 feet of the existing bridge piers	• New bridge located 120 feet west of existing Brent Spence Bridge • Two new piers located in the river within 35 feet of the existing bridge piers	• New bridge located 120 feet west of existing Brent Spence Bridge; • Two new piers located in the river within 35 feet of the existing bridge piers	• New bridge located 120 feet west of existing Brent Spence Bridge; • Two new piers located in the river within 35 feet of the existing bridge piers
Streams – (total linear feet impacted)	No impacts	• 207 feet from 2 intermittent streams • 245 feet from 1 ephemeral stream	• 207 feet from 2 intermittent streams • 245 feet from 1 ephemeral stream	• 207 feet from 2 intermittent streams • 245 feet from 1 ephemeral stream	• 207 feet from 2 intermittent streams • 245 feet from 1 ephemeral stream	• 207 feet from 2 intermittent streams • 245 feet from 1 ephemeral stream
Threatened and Endangered Species	No impacts	• 8 Woodlots with potential Indiana bat habitat • 3 Woodlots with marginal Indiana bat habitat (additional woodlot on west side of Western Ave in KY) • 1 Area with potential running buffalo clover habitat	• 8 Woodlots with potential Indiana bat habitat • 2 Woodlots with marginal Indiana bat habitat • 1 Area with potential running buffalo clover habitat	• 8 Woodlots with potential Indiana bat habitat • 2 Woodlots with marginal Indiana bat habitat • 1 Area with potential running buffalo clover habitat	• 8 Woodlots with potential Indiana bat habitat • 2 Woodlots with marginal Indiana bat habitat • 1 Area with potential running buffalo clover habitat	• 8 Woodlots with potential Indiana bat habitat • 2 Woodlots with marginal Indiana bat habitat • 1 Area with potential running buffalo clover habitat
Floodplains	No impacts	17.8 acres of floodplain impacted	4.2 acres of floodplain impacted	4.0 acres of floodplain impacted	6.0 acres of floodplain impacted	5.2 acres of floodplain impacted

Conceptual Alternatives Evaluation Matrix						
Impacts	**No Build**	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**	**Alternative G**
		(Former Alternative 2)	**(Former Alternative 3)**	**(Former Alternative 3)**	**(Former Alternative 3)**	**(Former Alternative 4 Hybrid)**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Cultural Resources						
Individual properties eligible for listing or listed in the National Register of Historic Places (NRHP)	No Impacts	3 Properties: 3 eligible properties: • Residence at 632 Western Avenue direct impact • Residence at 521 Western Avenue potential visual and noise impact • Residence at 881 Highway Avenue potential visual and noise impact	2 Properties: 1 eligible property: • Harriet Beecher Stowe School potential visual and noise impact 1 NRHP Listed: • Longworth Hall direct impact (0.25 acres and eastern portion of building)	2 Properties: 1 eligible property: • Harriet Beecher Stowe School potential visual and noise impact 1 NRHP Listed: • Longworth Hall direct impact (0.25 acres and eastern portion of building)	2 Properties: 1 eligible property: • Harriet Beecher Stowe School potential visual and noise impact 1 NRHP Listed: • Longworth Hall direct impact (0.54 acres and eastern portion of building)	2 Properties: 1 eligible property: • Harriet Beecher Stowe School potential visual and noise impact 1 NRHP Listed: • Longworth Hall direct impact (0.42 acres and eastern portion of building)
Historic Districts (HD) directly impacted	No Impacts	2.4 acres impacted of NRHP Listed Lewisburg HD • Direct impacts to 8 residences (1 non-contributing; 7 contributing)	0.83 acres impacted of NRHP Listed Lewisburg HD • Direct impacts to 10 residences (1 non-contributing; 9 contributing)	0.88 acres impacted of NRHP Listed Lewisburg HD • Direct impacts to 10 residences (1 non-contributing; 9 contributing)	0.98 acres impacted of NRHP Listed Lewisburg HD • Direct impacts to 11 residences (1 non-contributing; 10 contributing)	2.9 acres impacted of NRHP Listed Lewisburg HD • Direct impacts to 12 residences (2 non-contributing; 10 contributing)
Community Resources						
Facilities and Services (property or structure impacted)	No impacts	3 properties or structures: • Notre Dame Academy School (tennis courts) • Goebel Park (walking path, ball courts, parking lot) • Central Church of the Nazarene (KY) (parking lot)	4 properties or structures: • Notre Dame Academy School (tennis courts) • Goebel Park (walking path, ball courts, parking lot) • Queensgate Playground (strip take of ballfields) • Central Church of the Nazarene (KY) (parking lot)	4 properties or structures: • Notre Dame Academy School (tennis courts) • Goebel Park (walking path, ball courts, parking lot) • Queensgate Playground (strip take of ballfields) • Central Church of the Nazarene (KY) (parking lot)	3 properties or structures: • Notre Dame Academy School (tennis courts) • Goebel Park (strip take of property) • Central Church of the Nazarene (KY) (parking lot)	4 properties or structures: • Notre Dame Academy School (tennis courts) • Goebel Park (ball courts) • Queensgate Playground (strip take of ballfields • Central Church of the Nazarene (KY) (parking lot)

Conceptual Alternatives Evaluation Matrix						
Impacts	**No Build**	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**	**Alternative G**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	**(Former Alternative 2)** Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 4 Hybrid)** Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Community Cohesion	No Impact	• Loss of homes and local businesses on Crescent Avenue in West Covington neighborhood • Loss of 8 homes in the Lewisburg neighborhood and Historic District adjacent to I-71/I-75 • Traverses West Covington community residents and Queensgate business district • Residents displaced near Western Hills Viaduct	• Loss of 10 homes in the Lewisburg neighborhood and Historic District adjacent to I-71/I-75 • Residents displaced near Western Hills Viaduct	• Loss of 10 homes in the Lewisburg neighborhood and Historic District adjacent to I-71/I-75 • Residents displaced near Western Hills Viaduct	• Loss of 8 homes in the Lewisburg neighborhood and Historic District adjacent to I-71/I-75 • Residents displaced near Western Hills Viaduct	• Loss of homes and local businesses on Crescent Avenue in West Covington neighborhood • Loss of 12 homes in the Lewisburg neighborhood and Historic District adjacent to I-71/I-75 • Residents displaced near Western Hills Viaduct
Environmental Justice – (impacts neighborhoods and Census tracts with high percentage of low income and minority populations)	No impacts	• No minority population impact in KY • Medium impact to low-income populations (residences displaced in Lewisburg) in KY • Impact to facilities in Goebel Park • Medium impact to low-income population in Ohio • No disproportionate impacts	• No minority population impact in KY • Medium impact to low-income populations (residences displaced in Lewisburg) in KY • Impact to facilities in Goebel Park • Strip taken of land in Queensgate ballfields • Medium impact to low-income population in Ohio • No disproportionate impacts	• No minority population impact in KY • Medium impact to low-income populations (residences displaced in Lewisburg) in KY • Strip taken of land in Queensgate ballfields • Medium impact to low-income population in Ohio • No disproportionate impacts	• No minority population impact in KY • Medium impact to low-income populations (residences displaced in Lewisburg) in KY • Impact to land in Goebel Park • Medium impact to low-income population in Ohio • No disproportionate impacts	• No minority population impact in KY • Medium impact to low-income populations (residences displaced in Lewisburg) in KY • Strip taken of land in Queensgate ballfields • Medium impact to low-income population in Ohio • No disproportionate impacts

Conceptual Alternatives Evaluation Matrix						
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Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	**(Former Alternative 2)** Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 4 Hybrid)** Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Section 4(f) and 6(f) Resources						
Section 6(f) Parks – acres of properties impacted	No impact	1.86 acres of Goebel Park impacted (walking path, ball courts, parking lot)	2.6 acres of Goebel Park impacted (walking path, ball courts, parking lot)	1.94 acres of Goebel Park impacted (walking path, ball courts, parking lot)	0.35 acres of Goebel Park impacted (strip take of property)	0.78 acres of Goebel Park impacted (ball courts)
Section 4(f) Resources – (number of properties directly and potentially indirectly impacted)	No impact	5 resources impacted: • Goebel Park (1.86 acres) • Lewisburg Historic District (2.4 acres; 8 residences - 1 non-contributing and 7 contributing) • Residence at 632 Western Avenue direct impact • Residence at 521 Western Avenue potential visual and noise impacts • Residence at 881 Highway Avenue potential visual and noise impacts	5 resources impacted: • Goebel Park (2.6 acres) • Lewisburg Historic District (0.83 acres; 10 residences: 1 non-contributing; 9 contributing) • Longworth Hall (0.25 acres) • Harriet Beecher Stowe School potential visual and noise impacts • Queensgate Playground (0.31 acres)	5 resources impacted: • Goebel Park (1.94 acres) • Lewisburg Historic District (0.88 acres; 10 residences - 1 non-contributing; 9 contributing) • Longworth Hall (0.25 acres) • Harriet Beecher Stowe School potential visual and noise impacts • Queensgate Playground (0.45 acres)	4 resources impacted: • Goebel Park(0.35 acres) • Lewisburg Historic District (0.98 acres; 11 residences - 1 non-contributing; 10 contributing) • Longworth Hall (0.54 acres) • Harriet Beecher Stowe School potential visual and noise impacts	5 resources impacted: • Goebel Park (0.78 acres) • Lewisburg Historic District (2.9 acres; 12 residences - 2 non-contributing; 10 contributing) • Longworth Hall (0.42 acres) • Harriet Beecher Stowe School potential visual and noise impacts • Queensgate Playground (0.29 acres)
Property Acquisition						
Residential – (total estimated structures and residences displaced)	None displaced	42 structures: KY – 38 (65-260 residents displaced) • Majority of residences along Western and Crescent Avenues in KY OH – 5 (10-36 residents displaced) • OH residences near Western Hills Viaduct	16 structures: KY – 11 (13-52 residents displaced) • Majority of residences along Crescent Avenue in KY OH – 5 (10-36 residents displaced) • OH residences near Western Hills Viaduct	16 structures: KY – 11 (13-52 residents displaced) • Majority of residences along Crescent Avenue in KY OH – 5 (10-36 residents displaced) • OH residences near Western Hills Viaduct	19 structures: KY – 13 (12-48 residents displaced) • Majority of residences along Crescent Avenue in KY OH – 6 (11-40 residents displaced) • OH residences near Western Hills Viaduct and Western Avenue	31 structures: KY – 25 (28-112 residents displaced) • Majority of residences along Crescent Avenue in KY OH – 6 (11-40 residents displaced) • OH residences near Western Hills Viaduct

Conceptual Alternatives Evaluation Matrix						
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		(Former Alternative 2)	**(Former Alternative 3)**	**(Former Alternative 3)**	**(Former Alternative 3)**	**(Former Alternative 4 Hybrid)**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Business – (total estimated businesses and employees displaced)	None displaced	34 businesses displaced: KY – 8 (121-158 employees) • KY businesses mostly on KY 3rd and 4th streets and Crescent Avenue OH –26 (1,791-1,831 employees) • Impacts United Parcel Service (OH) with approximately 900 employees and Butternut Bread with 200 employees • Majority of business are in Queensgate area	35 businesses displaced: KY – 4 (90-115 employees) • KY businesses mostly on KY 3rd and 4th streets OH – 31(242-283 employees) • 21 businesses within Longworth Hall (OH) with approximately 100 employees	34 businesses displaced: KY – 4 (90-115 employees) • KY businesses mostly on KY 3rd and 4th streets OH – 30 (164-190 employees) • 21 businesses within Longworth Hall (OH) with approximately 100 employees	39 businesses displaced: KY – 4 (90-115 employees) • KY businesses mostly on KY 3rd and 4th streets OH – 35 (327-363 employees) • 21 businesses within Longworth Hall (OH) with approximately 100 employees	41 businesses displaced: KY – 7 (103-140 employees) • KY businesses mostly on KY 3rd and 4th streets and Crescent Avenue OH – 34 (1,215-1,251 employees) • Impacts United Parcel Service (OH) with approximately 900 employees • 21 businesses within Longworth Hall (OH) with approximately 100 employees
Partial property acquisition – (number of parcels with partial takes)	No takes	88 (KY – 67; OH – 24)	61 (KY – 42; OH – 19)	66 (KY – 48; OH – 18)	55 (KY – 39; OH – 16)	79 (KY – 54; OH – 25)
Right of Way Impacts – (acres converted to right of way)	No impacts	72.2 acres converted	22.2 acres converted	19.7 acres converted	22.3 acres converted	28.2 acres converted
Land Use						
Residential – (total acres of residential uses)	None	4.94 acres (KY – 4.80; OH – 0.14)	5.45 acres (KY – 5.30; OH – 0.15)	5.17 acres (KY – 5.01; OH – 0.16)	3.35 acres (KY – 3.19; OH – 0.16)	4.04 acres (KY – 3.77; OH – 0.27)
Commercial – (total acres of commercial uses)	None	6.82 acres (KY – 1.52; OH – 5.30)	4.56 acres (KY – 3.42; OH – 1.14)	4.06 acres (KY – 3.13; OH – 0.93)	4.29 acres (KY – 2.79; OH – 1.50)	5.04 acres (KY – 3.75; OH – 1.29)
Industrial – (total acres of industrial uses)	None	18.56 acres (KY – 5.61; OH – 12.95)	0.70 acres (KY - 0; OH – 0.70)	0.48 acres (KY - 0; OH – 0.48)	0.88 acres (KY - 0; OH – 0.88)	2.01 acres (KY - 0; OH – 1.65)
Other – (total acres of other land uses)	None	41.88 acres (KY – 14.53; OH – 27.36)	11.59 acres (KY – 5.06; OH – 6.53)	10.07 acres (KY – 4.64; OH – 5.44)	13.18 acres (KY – 4.35; OH – 8.83)	17.12 acres (KY – 9.45; OH – 7.67)

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Compatibility with existing community land use plans	Not compatible with economic development plans	Not compatible with plans • Goes through area of *Queensgate South Redevelopment Plan* • Impacts on goals of *GO Cincinnati* for Queensgate • Changes land uses noted in Northern Kentucky comprehensive plans	Compatible with plans • Supports redevelopment and economic plans in Queensgate and Cincinnati • Keeps land uses conducive with Northern Kentucky comprehensive plans	Compatible with plans • Supports redevelopment and economic plans in Queensgate and Cincinnati • Keeps land uses conducive with Northern Kentucky comprehensive plans	Compatible with plans • Supports redevelopment and economic plans in Queensgate and Cincinnati • Keeps land uses conducive with Northern Kentucky comprehensive plans	Compatible with some plans • Supports redevelopment and economic plans in Queensgate; • Keeps land uses conducive with Northern Kentucky comprehensive plans
Noise						
Number of receptor sites where 2035 noise levels will approach or exceed the NAC of 66 dBA for Category B land use (residential)	High noise impacts • All receptor sites will approach or exceed the NAC of 66 dBA in both KY and OH	High noise impacts • All receptor sites will approach or exceed the NAC of 66 dBA in both KY and OH	High noise impacts • All receptor sites will approach or exceed the NAC of 66 dBA in both KY and OH	High noise impacts • All receptor sites will approach or exceed the NAC of 66 dBA in both KY and OH	High noise impacts • All receptor sites will approach or exceed the NAC of 66 dBA in both KY and OH	High noise impacts • All receptor sites will approach or exceed the NAC of 66 dBA in both KY and OH
Number of receptor sites where 2035 noise levels will approach or exceed the NAC of 71 dBA for Category C land use (industrial/commercial)	High noise impacts Noise levels will approach or exceed the NAC of 71 dBA • 49 of 55 receptor sites in KY • "substantial increase" at 4 receptor sites in KY only • 47 of 55 receptor sites in OH	High noise impacts Noise levels will approach or exceed the NAC of 71 dBA • 50 of 55 receptor sites in KY • 54 of 55 receptor sites in OH	High noise impacts Noise levels will approach or exceed the NAC of 71 dBA • 49 of 55 receptor sites in KY • 51 of 55 receptor sites in OH	High noise impacts Noise levels will approach or exceed the NAC of 71 dBA • 48 of 55 receptor sites in KY • 49 of 55 receptor sites in OH	High noise impacts Noise levels will approach or exceed the NAC of 71 dBA • 49 of 55 receptor sites in KY • 49 of 55 receptor sites in OH	High noise impacts Noise levels will approach or exceed the NAC of 71 dBA • 50 of 55 receptor sites in KY • 49 of 55 receptor sites in OH
Hazardous Materials						
Number of sites recommended for Phase I Environmental Site Assessment	No impact	51 sites recommended for Phase I: • 14 sites in KY • 37 sites (1 CERCLIS) in OH	29 sites recommended for Phase I: • 12 sites in KY • 17 sites in OH	34 sites recommended for Phase I: • 12 sites in KY • 21 sites in OH	34 sites recommended for Phase I: • 12 sites in KY • 22 sites in OH	36 sites recommended for Phase I: • 13 sites in KY • 23 sites in OH

Conceptual Alternatives Evaluation Matrix						
Impacts	**No Build**	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**	**Alternative G**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	**(Former Alternative 2)** Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 3)** Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	**(Former Alternative 4 Hybrid)** Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Traffic						
Existing (2005) levels of service and average daily traffic	Approximately 160,000 vehicles per day in project corridor LOS range from C to F: • 22 segments – C • 19 segments – D • 7 segment – E or F (includes I-75, I-71, US 50)	N/A	N/A	N/A	N/A	N/A
Future (2035) levels of service along mainline segments (NB = northbound; SB = southbound)	LOS includes I-75 • 16 segments – D • 8 segments – E • 19 segments – F	I-75: • 1 NB segment LOS F north of Dixie Highway • 7 SB segments LOS E I-71: • NB all segments LOS E or F • SB two segments LOS F	I-75: • 1 NB segment LOS F north of Dixie Highway • 7 SB segments LOS E I-71: • NB all segments LOS E or F • SB two segments LOS F	I-75: • 1 NB segment LOS E and one LOS F • 6 SB segments LOS E I-71: • NB all segments LOS E or F • SB two segments LOS F	I-75: • No NB segments LOS E or F north of Dixie Highway • 4 SB segments LOS E I-71: • NB all segments LOS E or F • SB two segments LOS F	I-75: • 1 NB segment LOS F north of Dixie Highway • 7 SB segments LOS E I-71: • NB all segments LOS E or F • SB two segments LOS
Future (2035) daily hourly volumes along mainline segments (NB = northbound; SB = southbound)	I-75: • NB ranges from 2,360 – 8,860 • SB ranges from 2,760 – 10,170 I-71/I-75: • NB ranges from 5,310-8,650 • SB ranges from 940-9,160 I-71: • NB ranges from 1,900 – 7,400 • SB ranges from 2,420 – 6,330	I-75: • NB ranges from 2,450 – 8,790 • SB ranges from 2,730 – 9780 I-71/I-75: • NB ranges from 6,070 -8,910 • SB ranges from 5,900 -10,390 I-71: • NB ranges from 2,510 – 7,530 • SB ranges from 2,310 – 6,490	I-75: • NB ranges from 2,450 – 9,120 • SB ranges from 2,730 – 9,780 I-71/I-75: • NB ranges from 6,010 -8,910 • SB ranges from 5,900 -10,390 I-71: • NB ranges from 2,260 – 7,530 • SB ranges from 2,310 – 6,490	I-75: • NB ranges from 2,450 – 9,020 • SB ranges from 2,730 – 9,840 I-71/I-75: • NB ranges from 6,070 -8,910 • SB ranges from 5,900 -10,390 I-71: • NB ranges from 2,260 – 7,530 • SB ranges from 2,310 – 6,490	I-75: • NB ranges from 2,870 – 8,680; • SB ranges from 2,730 – 9,480 I-71/I-75: • NB ranges from 6,440 – 8,910; • SB ranges from 6,460 – 10,390 I-71: • NB ranges from 2,240 – 7,530; • SB ranges from 2,500 – 6,660	I-75: • NB ranges from 2,450 – 9,280 • SB ranges from 2,730 – 9820 I-71/I-75: • NB ranges from 5,640 – 8,910 • SB ranges from 5,900 – 10,390 I-71: • NB ranges from 2,240 – 7,530 • SB ranges from 2,310 – 6,490

Conceptual Alternatives Evaluation Matrix						
Impacts	**No Build**	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**	**Alternative G**
		(Former Alternative 2)	**(Former Alternative 3)**	**(Former Alternative 3)**	**(Former Alternative 3)**	**(Former Alternative 4 Hybrid)**
Alternative Description	The No Build Alternative consists of minor, short-term safety and maintenance improvements to the Brent Spence Bridge and I-75 corridor, which would maintain continuing operations. All within existing right of way.	Six lanes each direction between Kyles Lane to KY 12th Street; Local C-D roadway from KY 12th Street to Ohio River; New bridge (4 lanes in each direction) through Queensgate 900 feet west of existing for I-71/I-75 traffic; Rehab existing bridge for local traffic (2 lanes SB and 3 lanes NB); Realign US 50; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; local C-D roadway from KY 12th Street to Ohio River; New double deck bridge just west of existing bridge for I-75 (2 lanes NB and SB), 2 lanes SB I-71, two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes), NB local traffic (3 lanes); Reconfigure I-75 through I-71/I-75/US 50 Interchange; From KY 12th Street to Ezzard Charles Drive NB I-75 5 lanes, SB I-75 2 lanes, and local SB C-D roadway 4 lanes; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; Local C-D roadway between KY 12th Street and the Ohio River; New double deck bridge just west of the existing bridge I-75 (2 lanes NB and SB), two lanes SB I-71, and two lanes SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and three lanes for NB local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; 11 lanes for I-75 and SB local traffic between Ezzard Charles Drive and the Western Hills Viaduct; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; Two access points into Covington for both NB and SB traffic; New double-deck bridge just west of the existing Bridge for I-71/I-75 traffic (2 lanes in each direction); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; Between Ezzard Charles Drive and Western Hills Viaduct, SB I-75 6 lanes, NB I-75 5 lanes, and one auxiliary lane to the Western Hills Viaduct; Improvements to Western and Winchell Avenues	Six lanes in each direction between Kyles Lane and KY 12th Street; 2 access points to Covington for NB and SB traffic through a C-D roadway; New double deck bridge just west of the existing bridge for I-75 (2 lanes in each direction), 2 lanes for SB I-71 and 2 lanes for SB local traffic; Rehab existing bridge for NB I-71 (2 lanes) and local traffic (3 lanes); Reconfigure I-75 through the I-71/I-75/US 50 Interchange; I-75 elevated from Ohio River to Linn Street; NB C-D roadway will carry local traffic to Ezzard Charles Drive; Improvements to Western and Winchell Avenues
Maintenance of Traffic and Constructability	N/A	• Access and logistics improved over existing alignment • Concerns of access and logistics for constructing I-71 connector ramps • Issues related to disruption and delays due to encountering hazardous materials, unknown utilities, buried objects • Concern with realignment of transmission lines • Need to determine slope stability on south side of Ohio River	• Contractors would have limited space for access and logistics • Transportation elements reduced to "open" areas of construction • Issue with construction footprint in the area of I-71/I-75/FWW/US 50 would be clear due to existing transportation facility construction	• Contractors would have limited space for access and logistics • Transportation elements reduced to "open" areas of construction • Issue with construction footprint in the area of I-71/I-75/FWW/US 50 would be clear due to existing transportation facility construction	• Contractors would have limited space for access and logistics • Transportation elements reduced to "open" areas of construction • Issue with construction footprint in the area of I-71/I-75/FWW/US 50 would be clear due to existing transportation facility construction	• Contractors would have limited space for access and logistics • Transportation elements reduced to "open" areas of construction • Issue with construction footprint in the area of I-71/I-75/FWW/US 50 would be clear due to existing transportation facility construction
Signage	No impact	• New signage required on local streets • Final signage plans to include signs outside of project limits • Vertical clearance to accommodate signage for double-deck bridge and flyover ramps between OH 2nd and 8th streets • No signage problems are anticipated for any of the alternatives				
Utilities						
Number of utilities impacted	No impact	• 58 individual facilities identified. 46 are below ground and 12 are above ground • Does not impact the Duke Energy Sub-station near Longworth Hall • Requires relocation of 5 high voltage transmission cables	• 52 individual facilities identified. 45 are below ground and 7 are above ground • Impacts to portion of the Duke Energy Sub-station near Longworth Hall • Does not impact high voltage transmission cables	• 52 individual facilities identified. 45 are below ground and 7 are above ground • Impacts to portion of the Duke Energy Sub-station near Longworth Hall • Does not impact high voltage transmission cables	• 52 individual facilities identified. 45 are below ground and 7 are above ground • Impacts to portion of the Duke Energy Sub-station near Longworth Hall • Does not impact high voltage transmission cables	• 52 individual facilities identified. 45 are below ground and 7 are above ground • Impacts to portion of the Duke Energy Sub-station near Longworth Hall • Does not impact high voltage transmission cables
Utility relocation costs (2012 with inflation) (does not include right of way costs)	N/A	Duke Energy $175.0 million (ranges from $42.0 – 175.0 million)	Duke Energy $39.4 million	Duke Energy $39.4 million	Duke Energy $39.4 million	Duke Energy $39.4 million

Conceptual Alternatives Evaluation Matrix						
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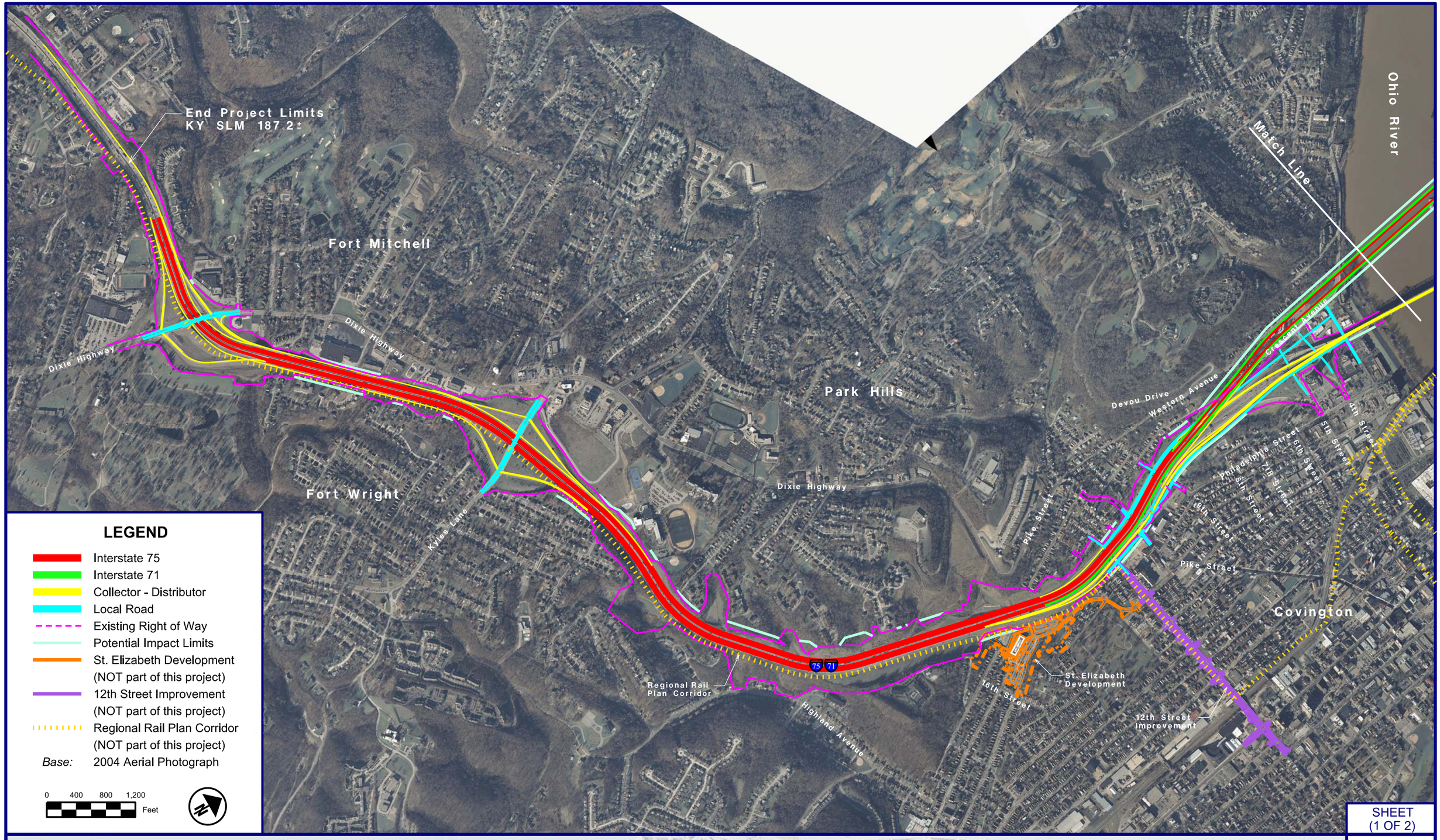
Cost Estimates (in millions)						
Estimated Right of way costs (2012 with inflation)	N/A	Kentucky: $18.4 Ohio: $46.5 Subtotal: $64.9	Kentucky: $2.5 Ohio: $15.5 Subtotal: $18.0	Kentucky: $2.4 Ohio: $12.1 Subtotal: $14.5	Kentucky: $2.4 Ohio: $13.0 Subtotal: $15.4	Kentucky: $4.6 Ohio: $19.9 Subtotal: $24.5
Estimated Construction Costs (2008 plus 59.5% inflation) **Note: Main span bridge included in Kentucky costs*	N/A	Kentucky: $1,485.4 Ohio: $880.6 Subtotal: $2,366.0	Kentucky: $1,260.4 Ohio: $752.0 Subtotal: $2,012.4	Kentucky: $1,260.4 Ohio: $752.0 Subtotal: $2,012.4	Kentucky: $1,474.1 Ohio: $809.3 Subtotal: $2,283.4	Kentucky: $1,305.3 Ohio: $1,079.3 Subtotal: $ 2,384.6
Estimated Utilities Costs (relocation and right of way costs with inflation)	N/A	Kentucky: $91.0 Ohio: $91.0 Subtotal: $182.0	Kentucky: $20.2 Ohio: $20.2 Subtotal: $40.4	Kentucky: $20.2 Ohio: $20.2 Subtotal: $40.4	Kentucky: $20.2 Ohio: $20.2 Subtotal: $40.4	Kentucky: $20.2 Ohio: $20.2 Subtotal: $40.4
Project Development Costs (with inflation)	N/A	Kentucky: $151.6 Ohio: $92.6 Subtotal: $244.2	Kentucky: $130.1 Ohio: $80.3 Subtotal: $210.4	Kentucky: $130.1 Ohio: $80.3 Subtotal: $210.4	Kentucky: $150.5 Ohio: $85.8 Subtotal: $236.3	Kentucky: $134.4 Ohio: $111.6 Subtotal: $246.0
Total Estimated Costs **Total estimated costs include construction, real estate, utilities, utilities right of way, and project development costs*	N/A	Kentucky: $1,746.4 Ohio: $1,110.7 $2,857.1	Kentucky: $1,413.2 Ohio: $868.0 $2,281.2	Kentucky: $1,413.1 Ohio: $864.6 $2,277.7	Kentucky: $1,647.2 Ohio: $928.3 $2,575.5	Kentucky: $1,464.5 Ohio: $1,231.0 $2,695.5



LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- Local Road
- Existing Right of Way
- Potential Impact Limits
- St. Elizabeth Development (NOT part of this project)
- 12th Street Improvement (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

U.S. Department of Transportation
Federal Highway Administration

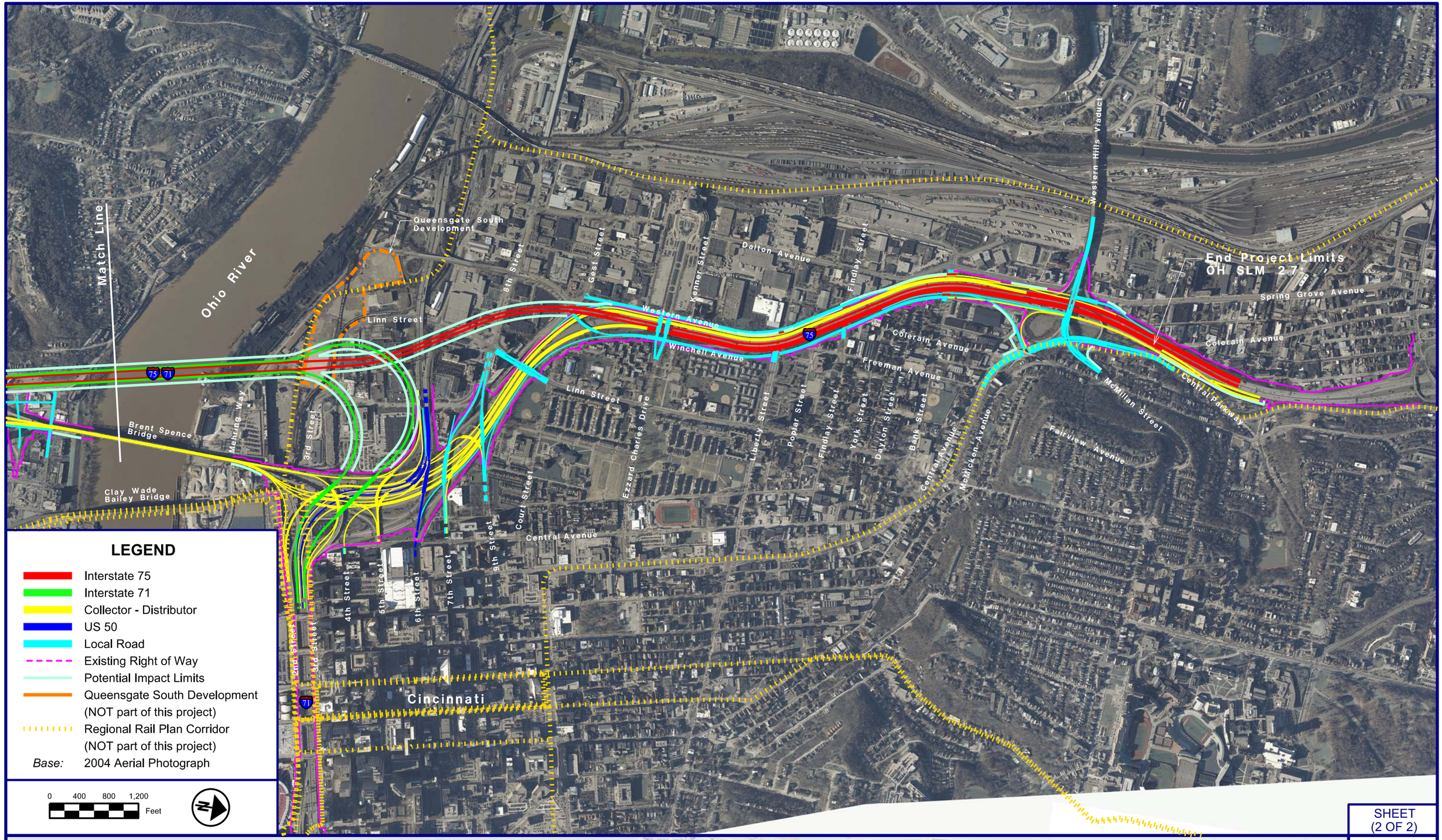
STEP 5 CONCEPTUAL ALTERNATIVE B (KENTUCKY)

SHEET (1 OF 2)

EXHIBIT

B1a

Prepared by
PARSONS BRINCKERHOFF



LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- US 50
- Local Road
- Existing Right of Way
- Potential Impact Limits
- Queensgate South Development (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

N

U.S. Department of Transportation
Federal Highway Administration

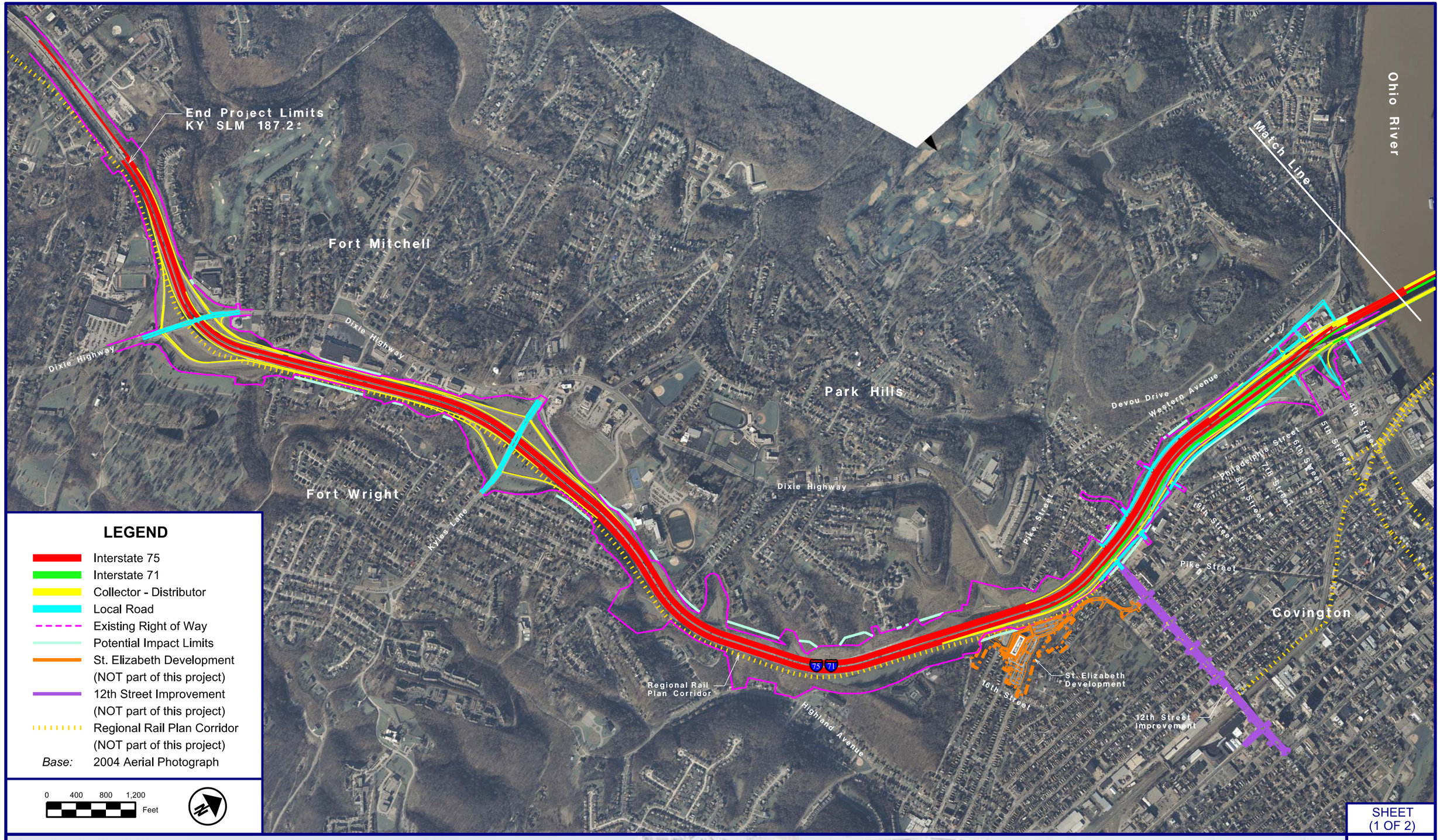
Prepared by: PARSONS BRINCKERHOFF

STEP 5 CONCEPTUAL ALTERNATIVE B (OHIO)

SHEET (2 OF 2)

EXHIBIT

B1b



LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- Local Road
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Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

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Federal Highway Administration

SHEET (1 OF 2)

STP 5 CONCEPTUAL ALTERNATIVE C (KENTUCKY)

EXHIBIT

B2a

Prepared by:
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Match Line

Ohio River

Queensgate South Development

Linn Street

Mehring Way

3rd Street

Brent Spence Bridge

Clay Wade Bailey Bridge

8th Street

Gest Street

Kenner Street

Dalton Avenue

Findlay Street

Western Hills Viaduct

End Project Limits
OH SLM 2.7+

Spring Grove Avenue

Colerain Avenue

Western Avenue

Winchell Avenue

Freeman Avenue

McMillan Street

Central Parkway

Fairview Avenue

Linn Street

Ezzard Charles Drive

Liberty Street

Poplar Street

Findlay Street

York Street

Dayton Street

Bank Street

Central Avenue

McMicken Avenue

Court Street

Central Avenue

2nd Street

3rd Street

4th Street

5th Street

6th Street

7th Street

9th Street

Cincinnati

LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- US 50
- Local Road
- Existing Right of Way
- Potential Impact Limits
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- Regional Rail Plan Corridor (NOT part of this project)

Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

N

U.S. Department of Transportation
Federal Highway Administration

SHEET
(2 OF 2)

STEP 5 CONCEPTUAL ALTERNATIVE C (OHIO)

EXHIBIT

B2b

Prepared by:
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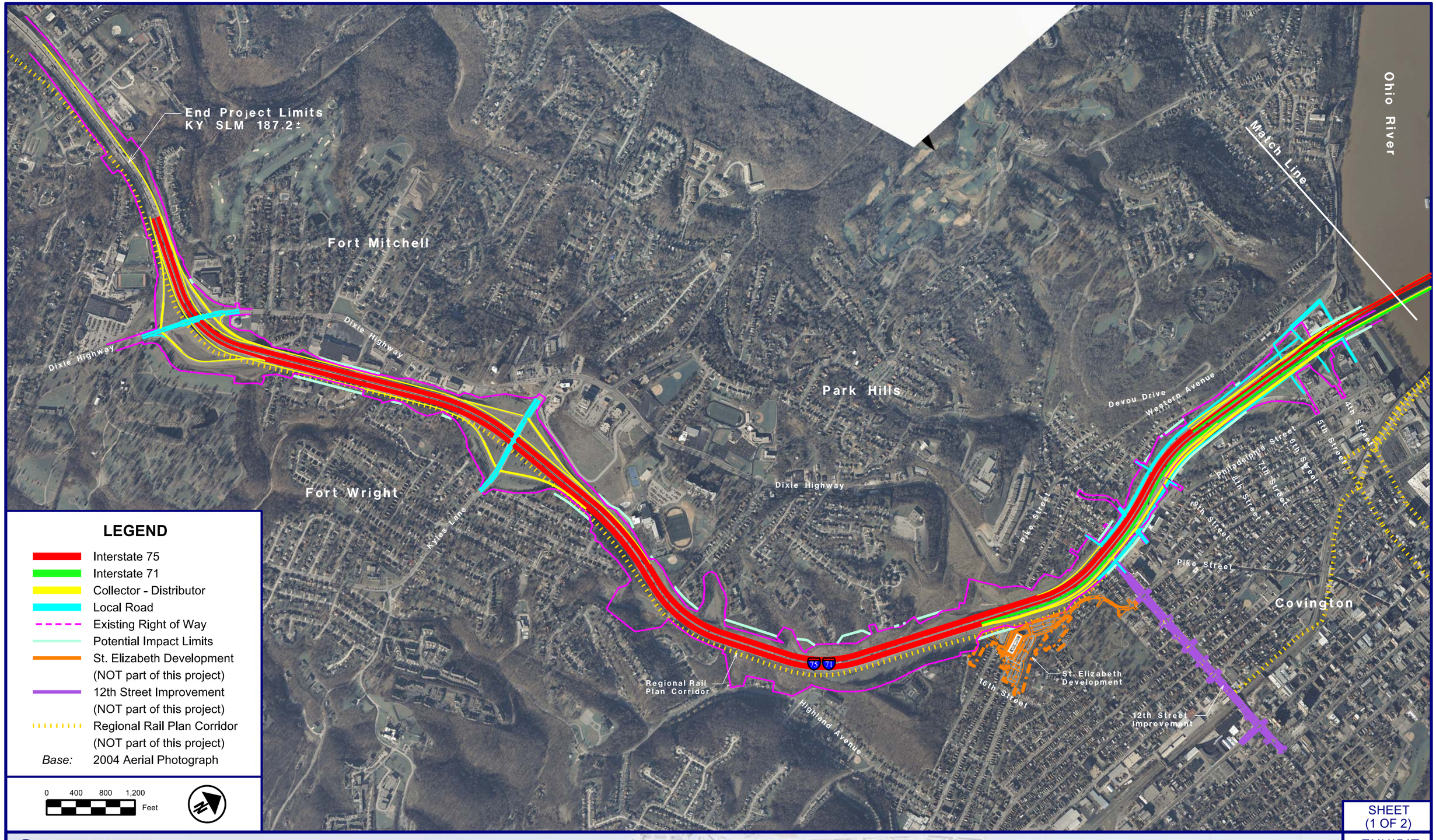

LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- Local Road
- Existing Right of Way
- Potential Impact Limits
- St. Elizabeth Development (NOT part of this project)
- 12th Street Improvement (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

U.S. Department of Transportation
Federal Highway Administration

STEP 5 CONCEPTUAL ALTERNATIVE D (KENTUCKY)

SHEET (1 OF 2)

EXHIBIT

B3a

Prepared by:
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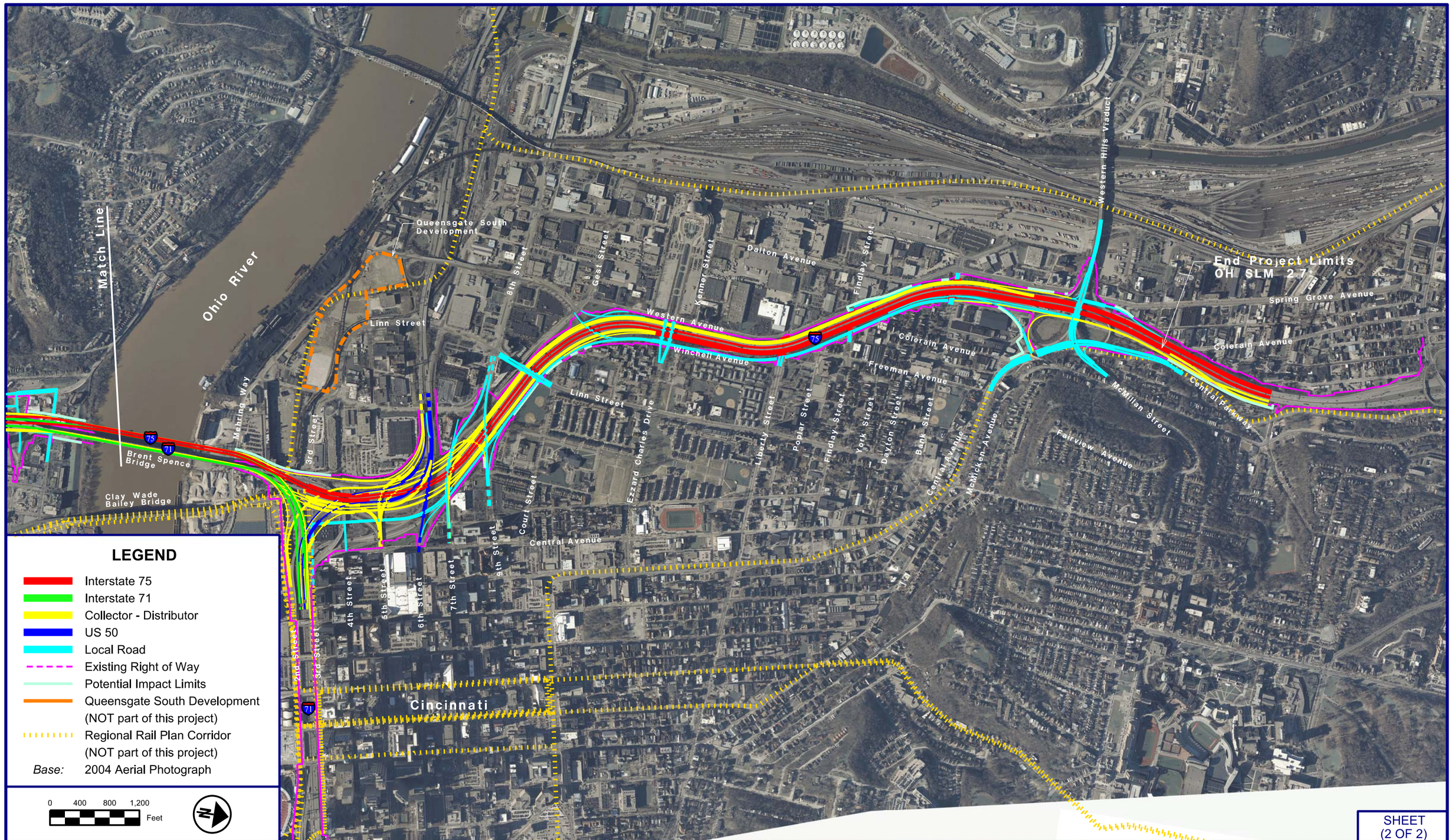

LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- US 50
- Local Road
- Existing Right of Way
- Potential Impact Limits
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- Regional Rail Plan Corridor (NOT part of this project)

Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

N

U.S. Department of Transportation
Federal Highway Administration

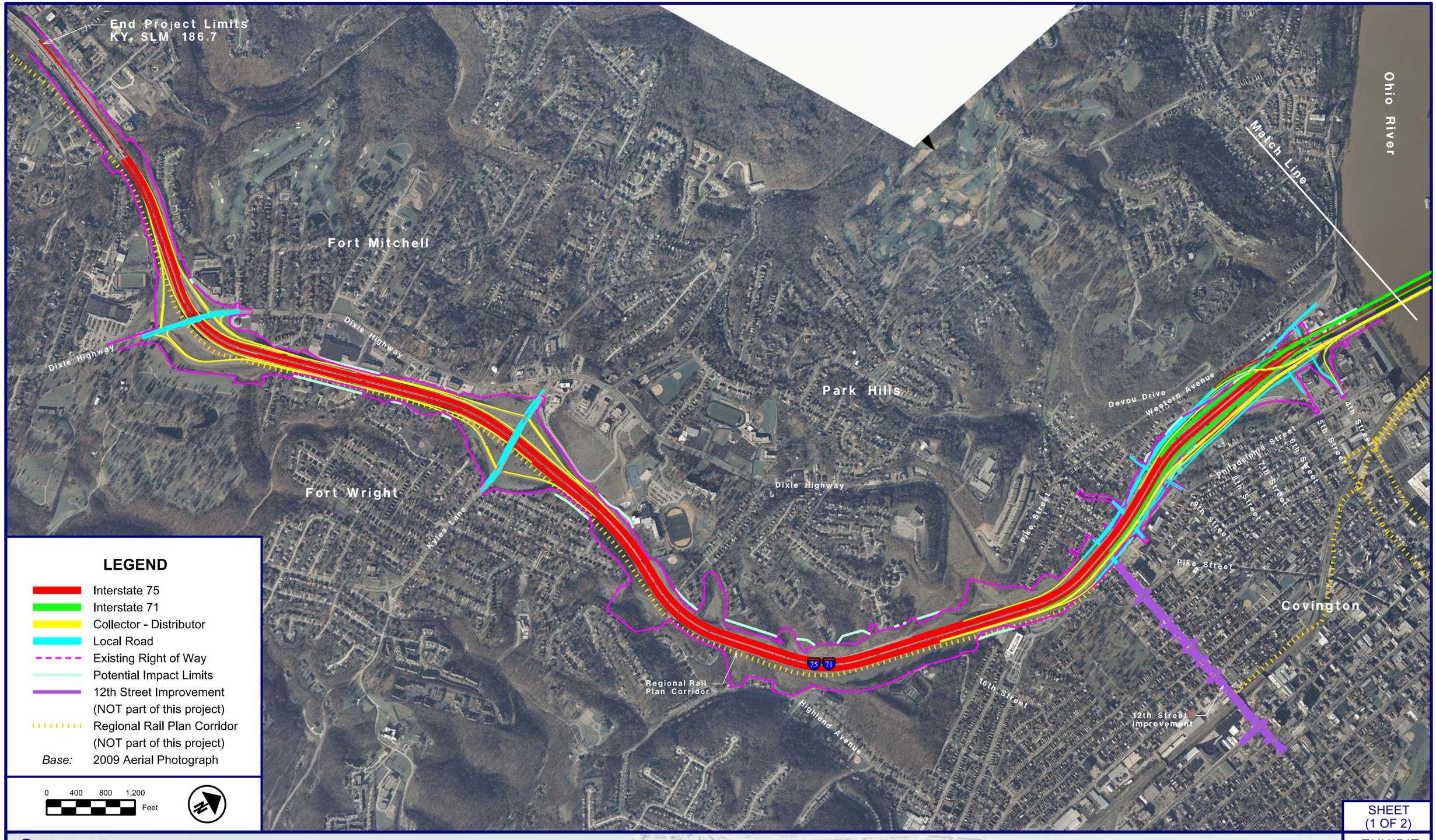
Prepared by:
PB PARSONS BRINCKERHOFF

SHEET (2 OF 2)

STEP 5 CONCEPTUAL ALTERNATIVE D (OHIO)

EXHIBIT

B3b



LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- Local Road
- Existing Right of Way
- Potential Impact Limits
- 12th Street Improvement (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 400 800 1,200 Feet

U.S. Department of Transportation
Federal Highway Administration

STEP 5 CONCEPTUAL ALTERNATIVE E (KENTUCKY)

SHEET (1 OF 2)

EXHIBIT

B4a

Prepared by:
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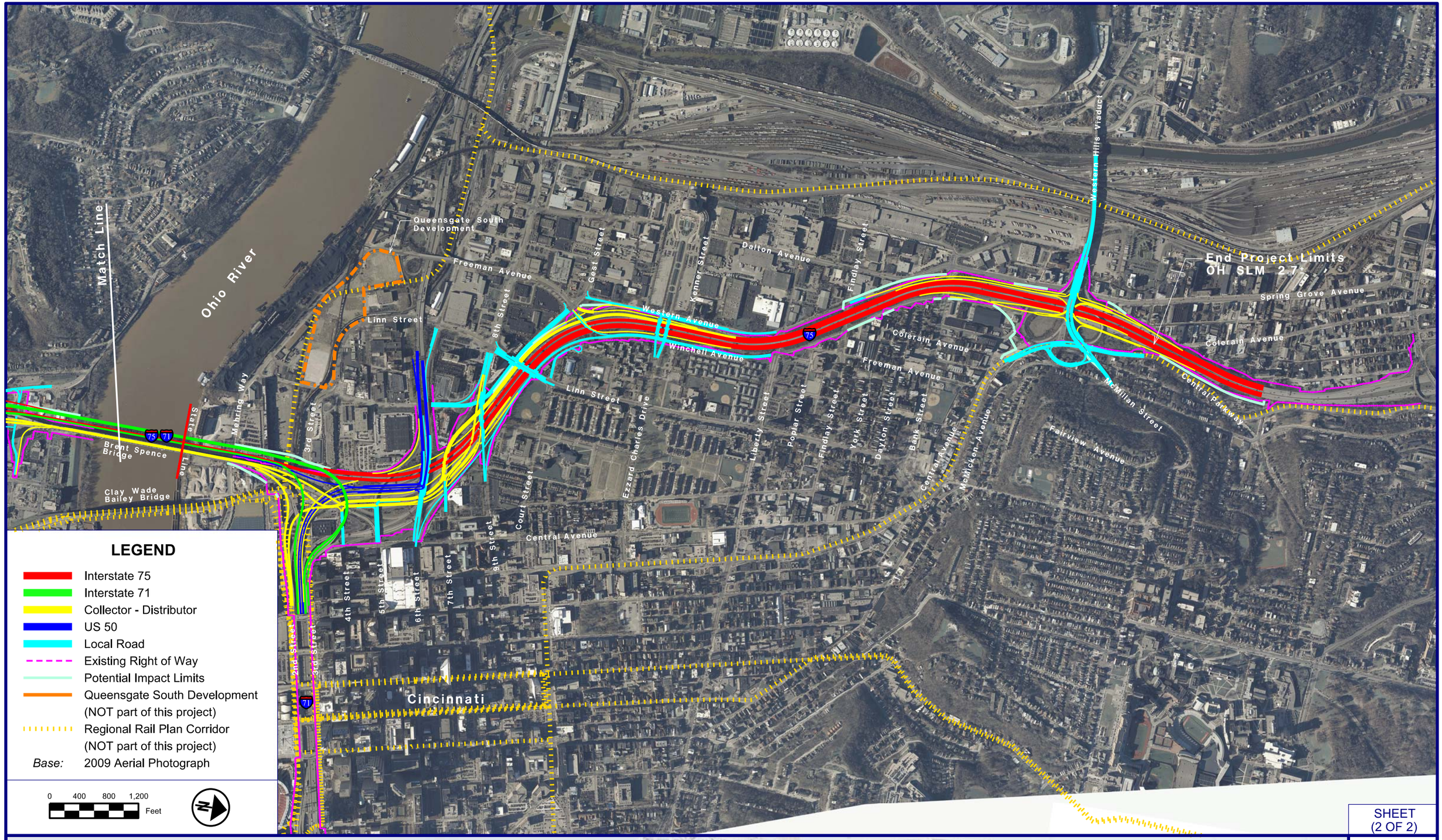

LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- US 50
- Local Road
- Existing Right of Way
- Potential Impact Limits
- Queensgate South Development (NOT part of this project)
- Regional Rail Plan Corridor (NOT part of this project)

Base: 2009 Aerial Photograph

0 400 800 1,200 Feet

N

SHEET (2 OF 2)

U.S. Department of Transportation
Federal Highway Administration

STEP 5 CONCEPTUAL ALTERNATIVE E (OHIO)

EXHIBIT

B4b

Prepared by:
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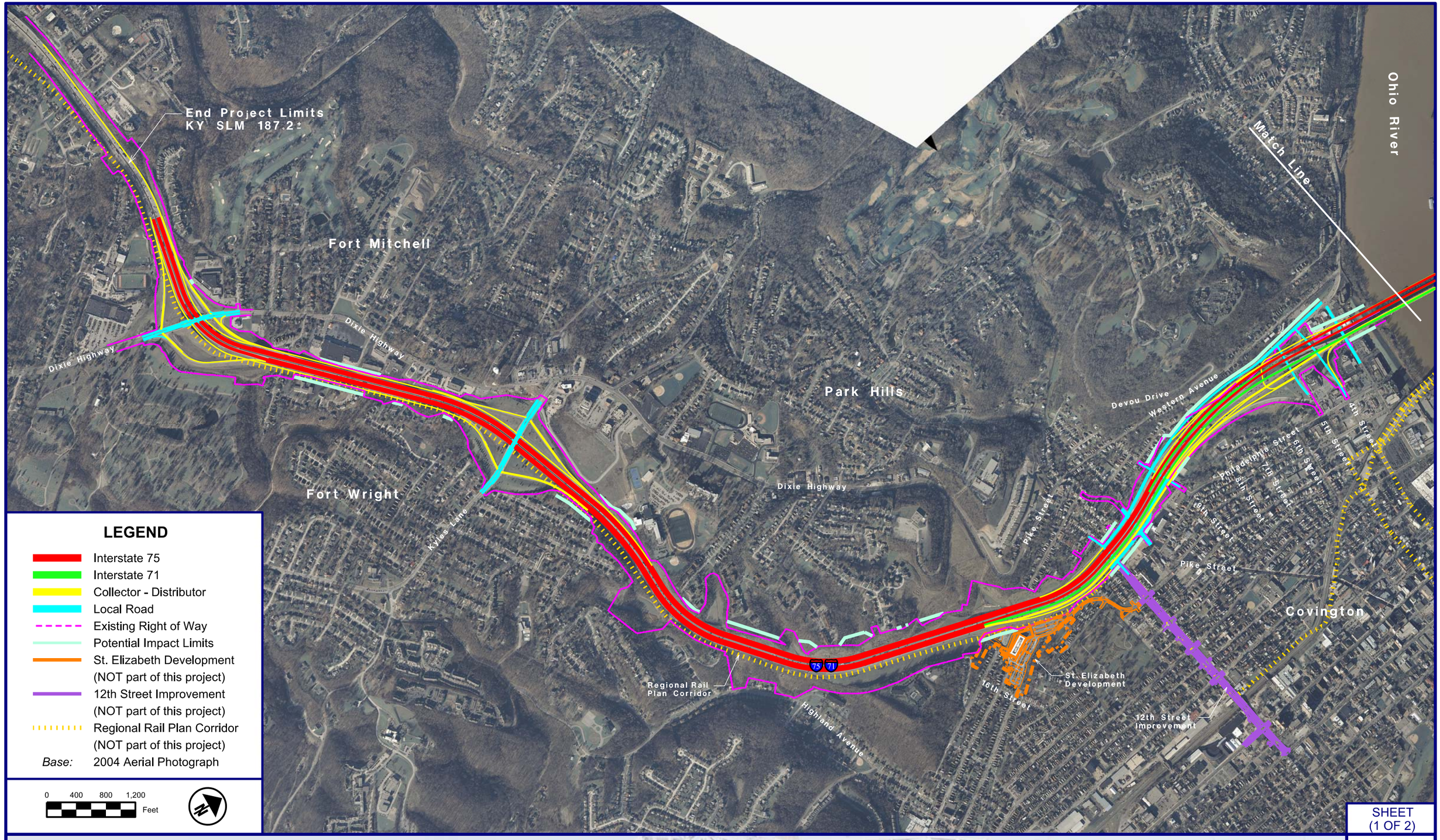

LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- Local Road
- Existing Right of Way
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- 12th Street Improvement (NOT part of this project)
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Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

U.S. Department of Transportation
Federal Highway Administration

STEP 5 CONCEPTUAL ALTERNATIVE G (KENTUCKY)

SHEET (1 OF 2)

EXHIBIT

B5a

Prepared by
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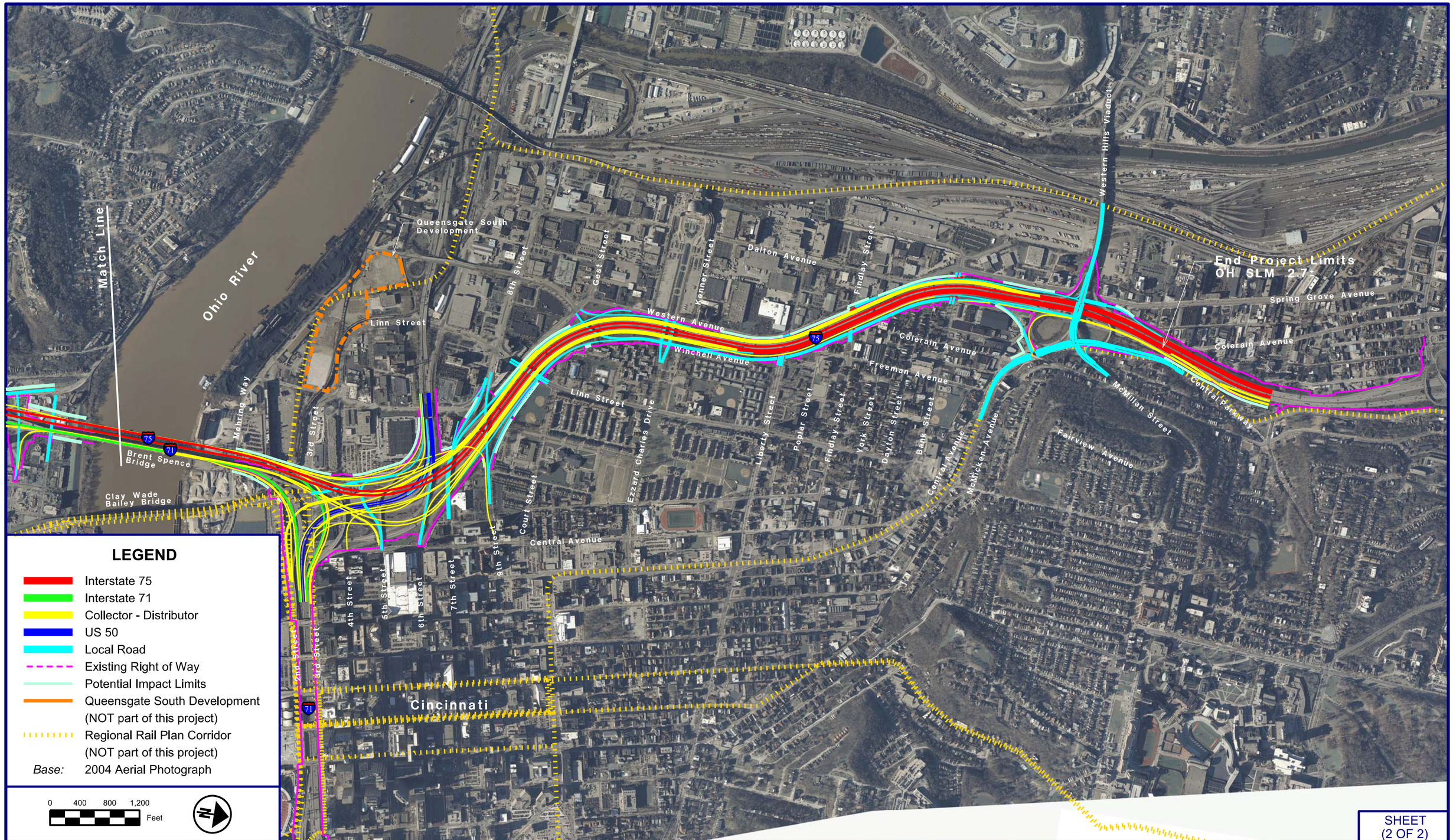

LEGEND

- Interstate 75
- Interstate 71
- Collector - Distributor
- US 50
- Local Road
- Existing Right of Way
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- Regional Rail Plan Corridor (NOT part of this project)

Base: 2004 Aerial Photograph

0 400 800 1,200 Feet

N

U.S. Department of Transportation
Federal Highway Administration

Prepared by:
PB PARSONS BRINCKERHOFF

SHEET (2 OF 2)

EXHIBIT

B5b

STEP 5 CONCEPTUAL ALTERNATIVE G (OHIO)

Appendix C
Documentation for the Lewisburg Historic District, Longworth Hall, and West McMicken Avenue Historic District

CITY OF COVINGTON

638 MADISON AVENUE • COVINGTON, KENTUCKY 41011-2298

December 12, 2011

Ms. Stacee Hans
Environmental Coordinator
KYTC District 6
421 Buttermilk Pike
Covington, Kentucky 41017

RE: Brent Spence Bridge- Section 106 Mitigation and Concerns to the Lewisburg National Register District

Dear Ms. Hans:

Please accept this letter as the City of Covington's formal response to the Section 106 Mitigation meeting held on November 16, 2011 in Covington City Commission Chambers the purpose of which was to solicit public input on adverse effects to the Lewisburg National Register District from the Brent Spence Bridge replacement project. The City is presenting additional information herein about the façade grant program that was proposed at the public meeting, as well as other mitigation measures, including a purchase rehab program; demolition of non-contributing buildings; and the Charles Zimmer Memorial Path as a re-connection from Lewisburg to commercial and recreational areas of the City. The City also wants to present its concerns about additional project impacts which include decreased access to the Lewisburg neighborhood by its residents, and access to Devou Park by residents and visitors from the region, and proposed mitigation measures to offset that loss of access.

Lewisburg is an important historic neighborhood of Covington. It was an industrial center because of Willow Run Creek and has always been an important gateway that hosted the Covington-Lexington Turnpike. The first I/75 project severed Lewisburg from the rest of the City and contributed heavily to disinvestment in the neighborhood. The current project will expand the interstate highway and right-of-way which exacerbates this separation, contributing to further disinvestment in Lewisburg. The expansion places a larger, more daunting physical barrier between the Lewisburg neighborhood and the rest of Covington. In addition, the expansion will increase noise and air pollution for this neighborhood. The City believes that the measures proposed below will help to offset the disinvestment in this historic neighborhood by causing reinvestment in the physical assets of the neighborhood and creating connections that will strengthen the historic resources of the Lewisburg National Register District.

1. Façade Grant Program: The City of Covington has coordinated and administered three different façade grant programs. Through Covington's Renaissance on Main Program, the City of Covington has administered over $300,000 worth of matching commercial façade grant funds. The City also had a matching awning and façade grant program in which

over $60,000 funds were administered to commercial storefronts. Currently the City is administering a homeowner façade grant program in two areas of the City with $80,000 of CDBG and HOME funds. While all three of these programs had slightly different requirements, all were required to be compliant with the Covington Historic Design Guidelines and/or the Secretary of the Interior's Standards for the treatment of Historic Properties. Attached are the guidelines for the three programs that the City has administered.

In reviewing past and present programs the City believes that the amount of $5,000 per property with a local match of 20% would have a significant positive impact on the neighborhood. Upon conducting an inventory of the neighborhood, the City proposes that 50 buildings be funded through this program. We also suggest that priority areas be designated through the program guidelines for these grants, such as the major corridors in the neighborhood, including Pike Street and 12th Street, which also function as gateways to Covington and Lewisburg and are high visibility areas.

2. Purchase Rehab Program: The City has evaluated the major gateways into the Lewisburg Neighborhood, specifically the Pike Street/Dixie Highway Corridor as it is a major entrance and gateway into both Lewisburg and the City of Covington. The City identified 9 buildings in this area that are currently vacant or for sale that would be eligible for purchase-rehab projects. Attached is a spreadsheet with that list of properties and the Property Valuation Administration or real estate Multiple Listing Service value with an estimated rehab cost for each.

3. Demolition of Non-Contributing Buildings: There are currently 41 buildings standing that are listed as non-contributing on either the Lewisburg National Register District Nomination Form or the Brent Spence Bridge Historic/Architectural Survey. Upon preliminary site visits to these properties there are approximately 15 properties that could be razed either for non-compliance with City property maintenance and building codes, or to provide easier access for parking or traffic circulation. The average demolition cost to the City for similar properties has been in the range of $8,000 to $14,000 depending on the size of the structure and the ease of access for equipment. A map is attached with the noncontributing buildings highlighted.

4. Charles Zimmer Memorial Path: As stated, the original I/75 highway project severed major access points from Lewisburg to the rest of the City. While the current physical pedestrian connections at 9th Street, Pike Street, and 12th Street, will remain with the new bridge, the pedestrian and multi-modal nature of that access needs to be improved for safety reasons and to encourage movement between the neighborhood and the rest of the City. Having good pedestrian and multi-modal connections will enhance the neighborhood by providing greater access for Lewisburg residents to commercial and recreational areas of the City in a safer and more attractive manner. Further, an important figure in Covington's history, Charles Zimmer, is from Lewisburg. He has been affectionately referred to as "Mr. Lewisburg", and providing an enhanced multi-modal connection at 9th Street, Pike Street, and 12th Street that is named after him will highlight his importance to Covington and Lewisburg History. Charles Zimmer lived and worked

in Lewisburg and owned and operated a hardware store in the 500 Block of Pike Street. A renewed connection along 9th Street, Pike Street, and 12th Street would once again connect the historic homes of the Zimmer Family in Lewisburg to the building that still retains their name, Zimmer Hardware. The paths should be multi-modal with sufficient distance from the road to allow for both pedestrian and bicycle traffic that is safely separated from automobile traffic, and it should also include improved and attractive lighting, landscaping, and other amenities to make the connection between Lewisburg and the rest of Covington more inviting. A short biography of Charles Zimmer, provided by the Kenton County Library, is attached.

5. Gateway at the 1200 Block of Pike Street on the east side of the road: The highway project has created disinvestment in Lewisburg and has created a lack of place and significance as one enters Covington on Pike Street/Dixie Highway. Providing a landscaped entrance with an attractive Covington and Lewisburg identification would improve the experience of entering Covington and enhance the Lewisburg National Register Historic District.

An extremely important asset to Covington and the greater Cincinnati Region is Devou Park. Devou Park is an important 700 acre recreational, historic, and cultural asset in the region. In 1910 the area was donated to the City of Covington by the Devou family for public park use. The park hosts a golf course that dates back to 1922, with a WPA era band shell; a museum that hosts historic displays of Northern Kentucky; and a tennis court that from the 1920's to the 1940's hosted the Ohio Valley Tennis Tournament, precursor of the Western Open and ATP Tournament now held in Mason, Ohio. The current design of the highway will cut off a major access point into Devou Park for Lewisburg historic district residents and visitors from the Greater Cincinnati region. It will also compromise residents' ability to easily access their homes and their use of the park. In order to mitigate these adverse effects to an important historic neighborhood and recreational resource for Covington and the Greater Cincinnati region, but especially for Lewisburg residents, the City is proposing the following measures:

1. Demolish non-contributing buildings along the one-way Montague Road as well as take current vacant parcels and convert them into off street parking in order to allow Montague to facilitate two-way access into Lewisburg and the Devou Park, consistent with the Devou Park Master Plan, adopted by the City in 2008. Providing additional off street parking in Lewisburg will be a necessity in order to provide continued access to the neighborhood and to Devou Park for residents and visitors.

2. Enhance the gateways and access to Devou Park by making improvements at Quarry and Lewis Street for off street parking, making it safer and easier for traffic circulation and access for residents to their homes and to Devou Park.

3. Provide wayfinding signage at Montague Road and Pike Street directing residents and visitors to the Lewisburg neighborhood and Devou Park. Since the current and most prominent access point at Pike Street and Lewis Street will be eliminated by the bridge

project, Lewisburg residents and visitors to Devou Park will need signs directing them along the new access points into the neighborhood and the park.

The City of Covington requests that these mitigation measures be given serious consideration and implemented for the Section 106 mitigation of adverse impact to the Lewisburg National Register Historic District caused by the bridge project. The disinvestment, separation, and limited access that the original I/75 highway project has caused to the Lewisburg neighborhood will cause further deterioration without this mitigation.

Please let me know if you have any questions or need any additional information.

As always, your time and attention is greatly appreciated.

Sincerely,

Larry Klein
City Manager
City of Covington, Kentucky

c: Bernadette Dupont Federal Highway Administration-Kentucky Division

December 22, 2011

KYTC Item # 6-17

Brent Spence Bridge Replacement/Rehabilitation Project

Summary of Meeting Regarding Potential Mitigation for Impacts to Lewisburg Historic District

Attendees:

Anthony Goodman	FHWA
John Ballantyne	FHWA
Ian Childster	FHWA
Phil Johnston	KHC
Craig Potts	KHC
Vicki Birenberg	KHC
Nick Laracuente	KHC
Stacee Hans	KYTC
Phil Logsdon	KYTC
Scott Schurman	KYTC
Rebecca Turner	KYTC
David Waldner	KYTC

A meeting was held at KYTC-CO on December 19, 2011 to discuss potential mitigation measures for impacts to the Lewisburg Historic District as a result of the Brent Spence Bridge Project. KHC stated that they were favorable to the mitigation items that were presented at the November 16, 2011 Consulting Party meeting. Mitigation items presented at that meeting included:

- Completion of photographic documentation of buildings to be demolished,
- Completion of Kentucky Individual Buildings Survey Forms for contributing resources within the Lewisburg Historic District (430 contributing buildings are listed in the National Register of Historic Places (NRHP) nomination),
- Revision of the 1993 NRHP nomination form to include contributing buildings that were not yet 50 years old at the date of nomination and to note which buildings are no longer extant due to recent residential development in the area,
- Creation of a Historic Preservation Plan for Lewisburg to preserve the history of the district,
- Development of a vegetative screening plan.

In addition to these mitigation items, the following mitigation items for Lewisburg Historic District were discussed:

- A Façade Grant program – this program would be implemented to improve façades of homes and businesses within the Lewisburg Historic District. The program would be funded by FHWA and administered by the City of Covington. The fund would require matching funds by the owner and a deadline date to complete improvements by would apply. Details such as the total

amount of the fund, the amount that would be available for each property, matching fund requirements, and the naming of the fund would have to be worked out in the future and specified In a Memorandum of Agreement (MOA). Additionally, there was further discussion regarding making the program affordable to low-income households that reside in the District.

- Barvarian Brewing Company – The Bavarian Brewing Company building is a listed resource (NRHP 96000281) located on 12th Street in Covington. The building is currently on sale for approximately 6 million dollars. KHC inquired about the possibility of whether the building could be purchased, refurbished, and ultimately turned over to the City Of Covington as a possible mitigation measure.
- Multi-modal; multi-use path – KHC inquired about the possibility of the construction of a multi-modal path that would connect Lewisburg Historic District with the City of Covington. KHC would like to implement a program similar to Legacy Trail in Lexington. This approach would connect the trail to be constructed to already existing bike and pedestrian trails. Also, KHC presented the idea of placing historic trail markers along the multi-use path. These markers would contain historic photographs of areas along the path and would give users of the path a perspective of how a specific area once was viewed historically.
- Vibration Testing – KHC requests that vibration testing for Lewisburg Historic District be performed during construction activities. Seismographs would be located at positions within Lewisburg Historic District to help avoid adverse impacts to the District during construction.

Further discussion ensued between KHC, FHWA, and KYTC on which of these mitigation measures should move forward. FWHA and KYTC were in favor of moving forward with the Façade Grant Program and the implementation of vibration testing during construction activities. It was agreed that these items best mitigated actual impacts to Lewisburg Historic District itself. Implementation of the Façade Grant Program would occur at the time of right-of-way authorization. Details of the Façade Grant Program and vibration testing will be worked out and specified in the MOA.

FHWA was not in favor with moving forward with mitigation regarding the Bavarian Brewing Company. FHWA indicated that the purchase of the building would be extremely difficult with FHWA funding due to legal and logistical implementation issues. In addition, it was agreed between all parties that the purchase and rehabilitation of the Bavarian Brewery would not directly mitigate impacts to Lewisburg Historic District.

Finally, FHWA and KYTC indicated that the implementation of a multi-modal trail should be looked at from a project wide perspective and will be considered a project commitment, not as mitigation to Lewisburg Historic District. Connectivity between Lewisburg Historic District and the City of Covington was severed when I-75 was originally constructed. Current project impacts will not significantly affect that connectivity. However, FHWA recognizes the sensitivity of the connectivity issue with local residents and will address the issue on a project commitment basis. FHWA also requested information from KHC regarding the cost of the historical markers that were presented as a possible mitigation item.

OHIO DEPARTMENT OF TRANSPORTATION

CENTRAL OFFICE • 1980 WEST BROAD STREET • COLUMBUS, OH 43223
JOHN R. KASICH, GOVERNOR • JERRY WRAY, DIRECTOR

OFFICE OF ENVIRONMENTAL SERVICES

October 28, 2011

Mr. Mark Epstein, Department Head
Resource Protection and Review
Ohio Historic Preservation Office
800 East 17th Avenue
Columbus, Ohio 43211

Attn: ODOT Transportation Review Managers

Subject: HAM-71/75-0.00/0.22 (PID 75119)

Re: *Notification of Adverse Effect*

Dear Mr. Epstein:

The intent of the subject submission is to consult with the Ohio State Historic Preservation Office (OSHPO) concerning the Section 106 effect of the subject undertaking, HAM-71/75-0.00/0.22 (PID 75119), on historic properties within the State of Ohio. The subject undertaking is to provide for operational improvements within the Interstate (IR) 71 and 75 corridors in the Greater Cincinnati/Northern Kentucky region. The corridor currently suffers from congestion and safety-related issues as a result of inadequate capacity to accommodate current traffic demand.

Project Description

The proposed undertaking will rehabilitate the existing Brent Spence Bridge; as well as, construct a double-deck bridge over the Ohio River. The existing Brent Spence Bridge will continue to carry northbound and southbound local traffic with two lanes in the southbound direction and three lanes in the northbound direction. The new double-deck bridge will carry northbound and southbound IR-71 and IR-75 traffic. The upper deck will carry IR-71 south via three southbound lanes and north via two northbound lanes. The lower deck will carry IR- 75 south via three southbound lanes and north via three northbound lanes.

Notification of Adverse Effect – B & O Freight Building/Longworth Hall (NRHP)

In accordance with 36 CFR § 800.5(a), FHWA has determined the subject undertaking will adversely affect the B & O Freight and Storage Building/Longworth Hall, listed on the National Register of Historic Places (NRHP) (860003521), 700 Pete Rose Way (Second Street), Cincinnati, Ohio. The report the *Brent Spence Bridge Replacement/Rehabilitation Project, Determination of Effects Report, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011),* forwarded to the OSHPO on June 14, 2011, provides documentation of the adverse effect finding as specified by 36 CFR § 800.11(e) (**Figure 1**).

The undertaking, as proposed, will result in the removal of a portion of the B & O Freight and Storage Building/Longworth Hall, listed on the NRHP, to facilitate the construction of the new double-deck bridge. The undertaking will require the removal of a portion of the eastern end of the building which includes: three, 15-foot, two 13-foot, and six 12 foot bays for a total of 20,000 square feet of floor space. It is to be noted the eastern end of the building was previously altered by the removal of a portion of the building to allow for the construction of the Brent Spence Bridge. The Scale House, located within the National Register boundaries as a contributing building, will not be removed or altered by the undertaking. Enclosed is an electronic copy of the report, *Brent Spence Bridge Replacement/Rehabilitation Project, Longworth Hall Impact Analysis Report, Part Three: Potential Mitigation Measures, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011),* which provides additional details as to the effect of the undertaking on the historic property **(Figure 1).**

The implementing regulations of Section 106, codified at 36 CFR § 800.5(a)(2), provide examples of adverse effects: *(i) Physical destruction of or damage to, all or part of the property . . . (ii) Alteration of a property, including restoration, repair, maintenance.* Therefore, based on the proposed removal of a portion of the B & O Freight and Storage Building/Longworth Hall, listed on the NRHP, FHWA, with ODOT as their agent, have determined a finding of "adverse effect" is applicable. In regard to the applicability of the remaining aspects of the adverse effect criteria as specified by 36 CFR § 800.5(a)(2), the following is offered:

(iii) Removal of the property from its historic location: The building will not be removed from its original location;

(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance: The property will continue to be used in a manner consistent with its current use upon the completion of the undertaking. The property is eligible for inclusion on the NRHP under Criterion A for its association with significant period of Cincinnati's rail transportation history; and, under Criterion C as an outstanding representation of an architectural type and method of construction applied to a rail depot. These characteristics will not be compromised. The introduction of a new double-deck bridge, to the east of the property would not alter the historic significance of the property in regard to Criterion A and its association with Cincinnati's rail transportation history. Concerning architectural significance, the remaining portion of the building will retain its current architectural features. Alterations to the building will be limited to the eastern end the building.

(v) *Introduction of visual, atmospheric or audible elements that diminish the integrity of the properties significant historic features:* During the property's period of significance, its setting and use as a rail depot was likely associated with relatively high ambient noise levels. The current setting features multiple transportation modes and facilities including: rail lines, bus transit, adjacent elevated interstate routes, and local ground level traffic featuring the movement of freight, services, local travelers and visitors. Noise analyses were conducted in conjunction with the project development process and noise barriers were determined to be unwarranted at this location. As an integral part of ODOT's project development process, measures to avoid or minimize harm to adjacent buildings and structures due to construction related vibration impacts are monitored before, during and after construction. No long term vibration impacts are anticipated. During construction, any anticipated short-term vibration impacts will be minimized or avoided by alternative construction methods. The property is eligible for inclusion on the NRHP under: Criterion A for its association with significant period of Cincinnati's rail transportation history; and, under Criterion C as an outstanding representation of an architectural type and method of construction applied to a rail depot. These characteristics will not be compromised.

In regard to the visual context, baseline conditions include the existing setting, including the natural and built environment. Visual intensity refers to the significance of an anticipated visual impact, either beneficial or adverse. The existing project area is highly urbanized and includes freeways, bridges, highway lighting, traffic control devices, guardrail, and local roadways. Short term visual impacts may include: earthwork, material and equipment storage, and construction activities. However, permanent negative visual impacts are not anticipated. The characteristics which qualify the B & O Freight Building/Longworth Hall for inclusion on the NRHP will not be diminished by the proposed undertaking.

(vi) Neglect of a property which causes its deterioration: The property will remain under current ownership. FHWA, with ODOT as their agent, will restore the building to a condition as agreed upon in consultation with the property owner and as a result of the Section 106 consultation process.

(vii) Transfer, lease, or sale of property: The property will retain remain under current ownership. The property owner will be compensated for any loss or damages as specified by Ohio Revised Code and in accordance with all applicable federal regulations.

Notification of Adverse Effect to the ACHP

On August 11, 2011, FHWA, with ODOT as their agent, notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect of the undertaking to determine their participation in resolving the adverse effects (**Figure 2**). The enclosed documents were forwarded to the ACHP for review and consideration:

- *Brent Spence Bridge Replacement/Rehabilitation Project, Determination of Effects Report, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011).*

- *Brent Spence Bridge Replacement/Rehabilitation Project, Longworth Hall Impact Analysis Report, Part Three: Potential Mitigation Measures, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011).*

- *Draft Memorandum of Agreement Between the Federal Highway Administration, the Ohio Department of Transportation, the Ohio State Historic Preservation Office, Regarding the HAM-71/75-0.00/0.22, PID 75119, Brent Spence Bridge Replacement/Rehabilitation Project, Hamilton County, Ohio and Kenton County, Kentucky, Adverse Effect to the B & O Freight and Storage Building/Longworth Hall, Listed on the National Register of Historic Places (86003521), 700 Pete Rose Way (Second Avenue), Cincinnati, Ohio (ODOT Agreement Number 16829).*

On August 31, 2011 the ACHP responded to the request, "we do not believe that our participation in the consultation to resolve adverse effects is needed . . ." (Johnson 2011) **(Figure 2)**

Resolution of Adverse Effect to B & O Freight Building/Longworth Hall

As documented by the enclosed agreement, *Draft Memorandum of Agreement Between the Federal Highway Administration, the Ohio Department of Transportation, the Ohio State Historic Preservation Office, Regarding the HAM-71/75-0.00/0.22, PID 75119, Brent Spence Bridge Replacement/Rehabilitation Project, Hamilton County, Ohio and Kenton County, Kentucky, Adverse Effect to the B & O Freight and Storage Building/Longworth Hall, Listed on the National Register of Historic Places (86003521), 700 Pete Rose Way (Second Avenue), Cincinnati, Ohio (ODOT Agreement Number 16829),* FHWA intends to formalize the resolution of the adverse effects of the

undertaking in two separate Memorandum of Agreements, one applicable to the adverse effects in Ohio and one applicable to the adverse effects in Kentucky, due to the complexity of the adverse effects of the undertaking.

The Section 106 consultation meetings, for the resolution of the adverse effect to the B & O Freight Building/Longworth Hall, will provide an opportunity for the agency officials and Section 106 consulting parties to discuss the results of the report, *Brent Spence Bridge Replacement/Rehabilitation Project, Longworth Hall Impact Analysis Report, Part Three: Potential Mitigation Measures, ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project Item No. 6-17 (June 2011*), and in the identification of measures to resolve the adverse effect.

Section 106 Effect on Historic Properties

In addition to the B & O Freight Building/Longworth Hall, listed on the NRHP, the following historic properties were identified as a result of Section 106 consultation and Phase I and Phase II history/architecture investigations, within the area of potential effects in Ohio. Documentation of the Section 106 consultation conducted to date, between the OSHPO and ODOT, is provided by **Figure 3**.

Resource	Section 106 Effect
Western Hills Viaduct Subway Tunnel Portals	No effect
West McMicken Avenue HD (as proposed by Cincinnati Preservation)	No effect
HAM-1709-40 (Chem-Pak, Inc. Building), 2261 Spring Grove Avenue	No effect
Western Hills Viaduct (SFN 3105458)	No Adverse Effect
Brighton Bridge (SFN 3101533)	No effect
HAM-7366-28 (High-Craft Printing Company), 1120 Harrison Avenue	No effect
HAM-2164-28 revised to HAM-6332-40 (Central Trust/Brighton Office), 1110 Harrison Avenue	No effect
HAM-1462-06 (Rummane Building), 635 Kress Alley	No effect
HAM-0484-06, 650 West McKicken Avenue	No effect
Dayton Street HD (NRHP 73001457)	No effect
Our Lady of Mercy/Cincinnati Jobs Corp (NRHP 80003070), 1409 Western Avenue	No effect
Cincinnati Union Terminal (NHL & NRHP 72001018)	No effect
HAM-1342-43 (Harriet Beecher Elementary School/Stowe Adult Education Center 635 West 7th Avenue	No effect
West Fourth Street HD and Amendment (NRHP 766001443 & 79001861)	No effect
John M. Mueller, Sr. House, 724 Mehring Way	No effect
Ohio National Guard Armory (Demolished) (NRHP 80003069), 1437-1439 Western Avenue	No effect

Section 106 Effect – Archaeology – Ohio

On October 15, 2010, FHWA, with ODOT as their agent determined the undertaking contained no potential for intact archaeological resources due to extensive highway construction and/or sequential urban development and redevelopment **(Figure 3)** pursuant to the *Programmatic Agreement Among the Federal Highway Administration, The Advisory Council on Historic Preservation, The Ohio Historical Society, State Historic Preservation Office, And The State*

of Ohio, Department of Transportation Regarding The Implementation Of The Federal-Aid Highway Program In Ohio (Agreement No. 12642) executed July 17, 2006 with the following exceptions:

- The residential lots associated with the West McMicken Street Historic District would merit archaeological testing for stratified late 19th century deposits if one of the interchange reconfiguration alternatives were chosen (see Figure 3). That particular interchange reconfiguration alternative was not chosen and the West McMicken Street Historic District will not be affected by the undertaking.
- The 1920s Cincinnati subway tunnel would require evaluation for listing on the NRHP if a particular interchange reconfiguration alternative were chosen. An environmental commitment to avoid the Cincinnati subway tunnels and portals will be included in the environmental document and in the construction plans for the project. Therefore, these resources will not be affected by the undertaking.
- It was recommended that soil and geotechnical borings conducted during the design phase in the river bottom area be monitored and/or reviewed by and archaeologist or geoarchaeologist for evidence of buried archaeological deposits and/or undisturbed original landforms. If either are determined to be present, an archaeological testing strategy would need to be designed and implemented for the horizontal and vertical footprint of the bridge supports and construction work limits. An environmental commitment to conduct this work during the design phase will be included in the environmental document.

No further archaeological investigations are warranted at this time. The OSHPO and the ODOT-OES will be provided an opportunity to review the final design. An environmental commitment to allow OSHPO an opportunity to comment on the final design plans will be included in the environmental document.

Conclusion

Based on the Section 106 consultation to date, FHWA, with ODOT as their agent, request the OSHPO's concurrence a finding of "adverse effect" is applicable to the subject undertaking's effect on the B & O Freight Building/Longworth Hall, listed on the NRHP. In accordance with 36 CFR § 800, FHWA will continue to consult with the agency officials and consulting parties in regard to the Section 106 effect of the undertaking on historic resources and in the resolution of Section 106 adverse effects. Measures to minimize harm to historic properties will continue to be incorporated into the project development process. In addition, the OSHPO and consulting parties will be provided an opportunity to review and comment on the refined design as the process progresses. Questions or comments should be directed to Timothy Hill, Administrator, ODOT Office of Environmental Services, at 614-644-0377.

Respectfully,

Timothy M. Hill
Administrator
Office of Environmental Services

OHIO STATE HISTORIC PRESERVATION OFFICE CONCURRENCE:

10.31.11
DATE

Enclosures
TMH:sg

Mark Vonder Embse, FHWA, w/att.
Najah Duvall-Gabriel, ACHP, w/att.
Stefan Spinosa, ODOT-District 8, w/att.
Project file

CINCINNATI PRESERVATION ASSOCIATION

November 17, 2011

Mr. Stefan C. Spinosa
ODOT Project Manager, District 8 Design Engineer
505 South State Route 741
Lebanon, Ohio 45036

Re: HAM-71/75-0.00/0.22, PID 75/19 Brent Spence Bridge Replacement/Rehabilitation Project: B&O Freight & Storage Building/Longworth Hall

Dear Mr. Spinosa:

Cincinnati Preservation Association (CPA) would like to comment on the mitigation measures proposed for Longworth Hall as discussed at the Consulting Parties meeting on November 2, 2011. As a Consulting Party, and as the holder of a historic preservation easement on the building, we support mitigation options that will not only help mitigate the adverse effects of the bridge construction, but confer practical benefits, helping to preserve the building and extend the life of its materials. Therefore, we support the following options as outlined in the draft Memorandum of Agreement, following the Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings:

Replacement of missing portion of top floor. A portion of the top floor of Longworth Hall was removed following a fire. We propose that this missing portion be rebuilt to compensate for the square footage to be removed for the new bridge, as was done in the 1960s following construction of the original bridge.

Window repair/storm windows. Longworth Hall has original 6/6, double-hung, single-pane wood windows, which are a character-defining feature of the building. Noise and dust are an issue for building tenants because of the building's proximity to the highway and to industrial facilities: problems that will worsen after the new bridge is built. The addition of appropriate weatherstripping and storm windows as a mitigation measure would benefit the building in many ways. These improvements would help preserve the windows, reduce outside noise and dust infiltration, and reduce the building's energy consumption and carbon footprint, thereby improving its profitability.

Masonry repair. Historic brick buildings are in need of periodic repair and repointing, and Longworth Hall is no exception. While sections of the walls have been repointed by

the owners, large areas are still in need of this costly and time-consuming restoration work. Repointing mortar joints and repairing or replacing bricks as necessary would help preserve the building, improve its appearance, and prevent costly future repairs.

Stabilization of the former boiler house. Better known as the scale building, this is a freestanding, one-story, brick building located at the northwest corner of the property that originally housed boilers for the no-longer-extant railroad roundhouse. It is presently in a ruinous state with collapsed roof. Stabilization of the building would help preserve an important contributing feature of the property with potential for adaptive reuse and eventual fit-out by a future tenant.

Finally, we would like to clarify our status as an easement holder, not only regarding the mitigation options, but future issues such as the design of the end wall, and possible compensation for partial loss of the building as a result of the undertaking.

Thank you for your consideration. Please contact us if you need more information.

Sincerely,

Margo Warminski
Preservation Director

Cc: Mark Epstein, Department Head, Resource Protection and Reviews, Ohio Historic Preservation Office
Paul J. Muller, AIA, Executive Director, Cincinnati Preservation Association

November 21, 2011

Stefan Spinosa
ODOT District 8
505 South SR 741
Lebanon, OH 45036

Dear Mr. Spinosa:

After attending the Consulting Parties meeting in Cincinnati on November 2, 2011, regarding mitigation measures for the HAM-71/75-0.00/0.22 project's adverse effect on Longworth Hall, Mark Epstein, Thomas Grooms, and I have discussed and prioritized the list of measures that have been suggested. Our list reflects our preference for "bricks and mortar" repairs to the building, much of which will remain standing, rather than documentation of it. We are completely open, however, to discussion, re-prioritizing, and additional measures that might be suggested. Further consultation with the consulting parties will ultimately provide the final and appropriate mitigation measures.

ODOT and the Consulting Parties have created an excellent list of mitigation possibilities. This is our prioritized list of the proposed mitigation measures:

Higher Priority

1. Masonry Repair and Tuck-Pointing
2. Installation of Storm Windows
3. Stabilization of associated Scale/Boiler House
4. Aesthetic treatments on new east wall (to Secretary of the Interior's Standards)
5. Plaque/Interpretive Signage
6. Commemorative dates on a cornerstone for new east wall (1904 on one side, 2015 on other)

Medium Priority

7. Building parapet wall on missing 4th floor
8. Reconstruction of 4th floor that was demolished by fire

Lower Priority

9. Preparation of HABS documentation on Longworth Hall
10. Re-painting rooftop water tower
11. Marking the footprint of the former RR roundhouse
12. Removal of upper floors and retention of lower floors under new bridge.
13. Preparation of a contextual study of similar RR freight buildings in Ohio
14. Rehabilitation of associated Scale/Boiler House

I will see you at the next meeting on December 8, 2011.

Sincerely,

Nancy H. Campbell

Nancy H. Campbell
Architecture Transportation Reviews Manager

1041620
2006-HAM-1640

OHIO HISTORICAL SOCIETY
Ohio Historic Preservation Office
1982 Velma Avenue, Columbus, Ohio 43211-2497 ph: 614.298.2000 fx: 614.298.2037
www.ohiohistory.org

KMK | Keating Muething & Klekamp PLL
ATTORNEYS AT LAW

JOSEPH L. TRAUTH, JR.
DIRECT DIAL: (513) 579-6515
FACSIMILE: (513) 579-6457
E-MAIL: JTRAUTH@KMKLAW.COM

November 28, 2011

Dear Consulting Parties:

This firm represents the owners of Longworth Hall. We appreciate the concern ODOT and others have shown regarding Longworth Hall. We have been waiting to understand the full desires of the public officials involved in the Brent Spence Bridge Replacement project before openly making comments.

This letter explains our concerns on the Brent Spence Bridge Replacement as it relates to Longworth Hall and also covers our requests on Historic Mitigation.

We have two concerns that have not been addressed to our satisfaction:

- We have not been convinced that the Bridge Replacement needs to go through Longworth Hall as opposed to being built just East of the current bridge where it could be placed over the Bengals practice field and the City/County parking lot. How can anyone justify going through a historic building as opposed to placing a bridge over a parking lot?

- We also are unconvinced that Longworth Hall can survive a partial "take". The multi-year bridge construction, the demolition, the bad press, the loss of quiet enjoyment of space, the reduced square footage without significantly reduced operating expenses and other serious concerns makes it unclear whether a partial take is a realistic course of action. Prior to and during construction, our lease levels may drop 80%. Who will mitigate that damage?

Historic Mitigation

My clients have preserved 300,000 square feet of historic property with Bedford limestone piers over three inches of maple-top wood flooring, 14-inch poplar wood joists, and century old kiln-fired bricks. Even the solid wood weight and pulley windows, built over a century ago, are original and working.

The proposed mitigation grossly underestimates the actual negative historic impact and in no way is sufficient. Suggesting that tuck-pointing and storm windows will mitigate the permanent removal of 204 feet of historic building is woefully inadequate. We now have a chance here to preserve and restore a historic property that will be the pride of this area for many generations. Having the government previously take 150 feet and now another 204 feet is an

enormous impact on the building. Its very appeal is its historic nature, and that is literally being destroyed by this project.

There will never be another time when we can restore the building with original bricks, floors, and joists. This would not be a re-creation -- it would be a literal restoration with the actual original materials. Once this opportunity is gone, it is gone forever.

These are the steps we require if an alternate route for the bridge is impossible:

1. Restoration of Fifth floor E. Again, this will be the only chance to use original materials to do so.

2. Restore the East face end to the original construction with original materials. We believe Section 106 requirements are met if a paving change (cobblestone, brick pavers) continues from the East end to the original end, or length, of the building, with a short wall and plaque at that end describing the original length and history. In this way, there would be no confusion that the restored end is the original. How can anyone justify not using original material to restore to original condition? This is **not** a "copy" of the old -- something Section 106 might frown upon -- but a literal restoration from original materials.

3. Masonry repair and tuck-pointing **and cleaning.** We also want the brick cleaned. The cleaning would help to match the new 4E reconstruction to the rest of the building and possibly preserve existing brick.

4. Storm window installation. This would preserve the original windows. However, it does not seem logical to install storm windows without restoring the actual windows themselves.

5. Window restoration. We believe the windows need to be removed, have working mechanisms repaired, windows re-glazed and repainted, and sash repair as needed.

6. All materials removed during demolition will become the property of Longworth Hall (for repair, restoration, and other purposes).

7. Roof replacement. Just as storm windows and tuck-pointing preserve what is original, roof replacement is needed to preserve the integrity of the building structure. We would like the remaining portion of the building to have a new roof system installed (est. $120,000).

8. Water tower. I believe the water tower is original to the building's first construction. Although no longer in use, it is in need of repair. We would like the water tower repainted (est. $50,000).

9. Refurbish the original lettering across the top of the building (Baltimore and Ohio Service [Station?]).

10. Stabilize the walls and replace the roof of the boiler house.

Construction control:

My clients have had poor experience with contractors working on a tight schedule and having their primary concern with budget and not building needs. Our concern is with retaining current tenants and gaining new tenants. My clients would like to either perform the construction themselves to preservation standards or have project management control, or have us write specifications as to how and when work will occur. We would perform work in a manner non disruptive to tenants (after hours, weekends, etc.).

Since this is a once-in-a-lifetime opportunity to preserve and restore a historic treasure, we ask that the consulting parties work hard to either find an alternative location for the bridge or do everything possible to fully mitigate the damages. We will be happy to discuss these very important issues with you at our upcoming meeting on December 8th.

Sincerely,

KEATING MUETHING & KLEKAMP PLL

By: _____
Joseph L. Trauth, Jr.

ksl

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KMK | Keating Muething & Klekamp PLL
ATTORNEYS AT LAW

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DIRECT DIAL: (513) 579-6515
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December 21, 2011

Dear Consulting Parties:

As you know, this firm represents the owners of Longworth Hall. In follow up to our meeting of December 8, 2011 we have the following concerns: After initial consultation with our appraisers, we are now more convinced more than ever that Longworth Hall, following a take process, will not be an economically feasible nor viable entity. This is due to the length of the construction project, the demolition of one-third of the building, the addition of a second bridge making our site more difficult to find, the relocation of a major Duke Energy substation from a relatively distant location to immediately adjacent to the south of the building, the influence of negative press, noise from pile driving and general construction, a multi-year construction zone, reduced square footage which significantly impacts the operating efficiency of the current building as well as the effects of 200,000 – 220,000 vehicles per day within 40 feet of the building.

We seem to have the cart before the horse with the 106 process taking place in advance of the eminent domain process. As to our mitigation, in my letter dated November 28, 2011 (attached) we addressed approximately 11 points. On point one, the restoration of the fifth floor, was responded to with a front parapet wall only, which we believe is totally inadequate for true historic mitigation and would demand that the parapet wall be placed not only in the south but also on the north with a roof to preserve it. Item 2 was agreed to. Items 3 and 4 were agreed to. Number 5, window restoration, was met with a negative, however, we believe that is also important to preserve the historical integrity and significance of the building. Number 6 was agreed to. Number 7 was not agreed to, but we believe that the roof replacement is as important as the storm windows -- and maybe more important -- to preserve this historic structure. Number 8, painting the water tower, was turned down. We could potentially agree to that being done by the owner. Number 9, refurbishing the original lettering across the top of the building, was agreed to. Number 10 was not agreed to, however, we believe that the boiler house is a significant portion of the historical value of the complex. Number 11 was also agreed to.

We can further discuss these matters at your convenience and are more than willing to do so.

Yours very truly,

KEATING MUETHING & KLEKAMP PLL

By: _____
Joseph L. Trauth, Jr.

JLT:ksl

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MEMORANDUM OF AGREEMENT BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION, THE OHIO DEPARTMENT OF TRANSPORTATION, AND THE OHIO STATE HISTORIC PRESERVATION OFFICE, REGARDING THE BRENT SPENCE BRIDGE REPLACEMENT/REHABILITATION PROJECT, HAM-71/75-0.00/0.22, PID 75119, HAMILTON COUNTY, OHIO AND KENTON COUNTY, KENTUCKY ADVERSE EFFECT TO THE B&O FREIGHT AND STORAGE BUILDING/LONGWORTH HALL, LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES (86003521) 700 PETE ROSE WAY (SECOND STREET), CINCINNATI, OHIO (ODOT AGREEMENT NUMBER 16829)

WHEREAS, the Federal Highway Administration (FHWA), the Kentucky Transportation Cabinet (KYTC), and the Ohio Department of Transportation (ODOT) propose to reconstruct a 7.8-mile segment of Interstate 71 (I-71) and Interstate (I-75) and construct a new bridge over the Ohio River in Kenton County, Kentucky and Hamilton County, Ohio, known as the Brent Spence Bridge Replacement/Rehabilitation Project, and hereby known as the undertaking (UNDERTAKING); and

WHEREAS, FHWA, with ODOT and KYTC as their agents, plan to fund the UNDERTAKING, thereby making the UNDERTAKING subject to review under Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470f, and its implementing regulations, 36 C.F.R. Part 800; and

WHEREAS, FHWA, with ODOT and KYTC as their agents, have consulted with the Ohio State Historic Preservation Office (SHPO) and the Kentucky Heritage Council (KHC); and

WHEREAS, FHWA, with ODOT and KYTC as their agents, will consult with federally recognized Native American Indian Tribes that may attach religious and cultural significance to historic properties; and

WHEREAS, FHWA, with ODOT and KYTC as their agents, have identified and consulted with consulting parties through public meetings, direct notification, project website, and Section 106 consultation; and, have not denied any of the identified consulting parties such status for this UNDERTAKING; and

WHEREAS, FHWA, with ODOT and KYTC as their agents, in consultation with the SHPO, KYTC and other consulting parties, have identified the UNDERTAKING's area of potential effect (APE), as defined in 36 C.F.R.§ 800.16(d); and

WHEREAS, FHWA with ODOT and KYTC as their agents, have incorporated avoidance and minimization measures into the project development process by incorporating noise walls, retaining walls, pedestrian facilities, and aesthetic treatments into the design where warranted; and

WHEREAS, FHWA, with ODOT and KYTC as their agents, will continue to incorporate avoidance and minimization measures into the UNDERTAKING; and

WHEREAS, FHWA, with ODOT as their agent, in consultation with the SHPO, and other consulting parties, determined the UNDERTAKING will have an adverse effect upon the B&O Freight and Storage Building/Longworth Hall, listed on the NRHP (86003521), located at 700 Pete Rose Way (Second Street), Cincinnati, Ohio, pursuant to Section 106 of the NHPA, 16 U.S.C. § 470f, and its implementing regulations, 36 C.F.R. § 800; and

WHEREAS, FHWA, with KYTC as their agent, in consultation with the KHC, and other consulting parties, determined the UNDERTAKING will have an adverse effect upon the Lewisburg Historic District, listed on the NRHP (93001165), bounded by I-71/75 and the city limits of Covington, Kentucky, pursuant to Section 106 of the NHPA, 16 U.S.C. § 470f, and its implementing regulations, 36 C.F.R. § 800; and

WHEREAS, FHWA, with ODOT and KYTC as their agents, have determined the agreed upon measures to resolve the adverse effects of the UNDERTAKING to historic properties, located in the State of Ohio and the Commonwealth of Kentucky, will be formalized by two separate Memoranda of Agreements; and

WHEREAS, FHWA, with ODOT as their agent, has initiated this Memorandum of Agreement (AGREEMENT) to build upon the identification and consultation efforts conducted thus far in the State of Ohio; and, to formalize measures to resolve the adverse effect to the B&O Freight and Storage Building/Longworth Hall, listed on the NRHP (86003521), located at 700 Pete Rose Way (Second Street), Cincinnati, Ohio; and

WHEREAS, FHWA, with ODOT as their agent, have invited the identified consulting parties to concur with this AGREEMENT and will continue to consult with the consulting parties as the UNDERTAKING progresses; and

WHEREAS, FHWA, with ODOT as their agent, in accordance with 36 C.F.R § 800.6(a)(1), has notified the Advisory Council on Historic Preservation (COUNCIL) of the adverse effect determination with specified documentation and the COUNCIL has chosen not to participate in the consultation pursuant to 36 C.F.R 800.6(a)(1)(iii); and

NOW THEREFORE, FHWA, with ODOT as their agent, agree that the UNDERTAKING shall be implemented in accordance with the following stipulations in order to take into account the adverse effect of the UNDERTAKING on the B&O Freight and Storage Building/Longworth Hall, listed on the NRHP (86003521), located at 700 Pete Rose Way (Second Street), Cincinnati, Ohio.

STIPULATIONS

FHWA shall ensure that the following mitigation measures are carried out:

I. ARCHITECTURAL PROPERTIES

A. In consultation with FHWA, SHPO, and other consulting parties, ODOT has identified architectural historic properties in the APE, as documented by the *Brent Spence Bridge Replacement/Rehabilitation Project Determination of Effects Report ODOT PID No. 75119, HAM-71/75-0.00/0.22, KYTC Project item No. 6-17;* and, has identified the effects to historic properties located within the APE.

B. ODOT proposes treatments commensurate with the level of impact and that are a reasonable public expenditure in light of the severity of the impact. ODOT will mitigate

the adverse effect to B&O Freight and Storage Building/Longworth Hall, listed on the NRHP (860003521), located at 700 Pete Rose Way (Second Street), Cincinnati, Ohio, using, but not limited to, one or more of the treatments on the following list:

1. Installation of exterior storm windows.

2. Restoration of the east wall, to an approximation of its original appearance, will include materials salvaged during demolition in accordance with the Secretary of Interior's Standards.
    a. Plans will be developed for review and comment by the building owner, Cincinnati Preservation Association, and SHPO.
    b. Windows, removed to accommodate the new roadway construction, will be restored and used in the east wall reconstruction.
    c. Windows, removed and not used in the east wall reconstruction, will be restored and returned to the owner.
    d. A cornerstone, commemorating the date of construction (1904) on one side, and the date of the renovation on the other side, will be included in the east wall reconstruction design.
3. Masonry repair will include: repair or replacement of bricks as warranted; tuck-pointing; and, brick cleaning of the west, north, and south walls.

4. Plaque/Interpretive signage will be constructed:
    a. The original location of the east wall, prior to the construction of the Brent Spence Bridge, will be outlined by bricks and stone work.
    b. An interpretive plaque, describing changes to the property that have occurred over time, will be placed near the original location of the east end wall.

5. The original lettering across the top of the building will be refurbished.

6. All materials removed, that retain historic integrity and nature, will be returned to the building owner to be used in future repairs or expansion.

7. ODOT will have follow up discussions with the owner regarding contracting methods and their request to either perform the construction themselves or provide project management control. If ODOT concurs in this approach, details will be outlined in a separate agreement.

Prior to commencement of the proposed treatment plans, ODOT will ensure right-of-way acquisition has been completed.

II. DURATION

This AGREEMENT will be null and void if the UNDERTAKING is not implemented within five (5) years from the date of its execution. At such time, and prior to work continuing on the UNDERTAKING, FHWA shall either (a) execute a new agreement pursuant to 36 C.F.R. § 800.6; or (b) request, take into account, and respond to the comments of the COUNCIL under 36 C.F.R. § 800.7. Prior to such time, FHWA may consult with the other signatories to reconsider the terms of this AGREEMENT and amend it in accordance with Stipulation VIII below. FHWA shall notify the signatories as to the course of action it will pursue.

III. POST-REVIEW DISCOVERIES AND UNANTICIPATED DISCOVERY OF HUMAN REMAINS, OHIO

A. If previously unidentified archaeological or historic properties, or unanticipated effects, are discovered after completion of Section 106 review, that portion of the project will stop immediately, pursuant to Section 203.04 of ODOTs *Construction and Material Specifications*. The ODOT project engineer will immediately contact ODOT-OES and/or the appropriate ODOT District Environmental Coordinator. No further construction in the area of discovery will proceed until the requirements of 36 C.F.R. § 800.13 have been satisfied, including consultation with federally recognized Native American Indian tribes that may attach traditional cultural and religious significance to the discovered property. ODOT will consult with SHPO and Indian tribes, as appropriate, to record, document and evaluate NRHP eligibility of the property and the projects effect on the property, and to design a plan for avoiding, minimizing, or mitigating adverse effects on the eligible property. If neither the SHPO nor a federally recognized Native American Indian Tribe file a timely objection to ODOT's Office of Environmental Services (ODOT-OES) plan for addressing the discovery, ODOT-OES may carry out the requirements of 36 C.F.R. § 800.13 on behalf of FHWA and the COUNCIL need not be notified. FHWA and ODOT-OES will conduct all review and consultation in accordance with *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the Ohio Historical Society, State Historic Preservation Office, and the State of Ohio, Department of Transportation Regarding Implementation of the Federal-Aid Highway Program in Ohio (Agreement No.16734)* (executed 11/30/2011).

B. Historic and prehistoric human remains are subject to protection under Ohio Revised Code Sections 2909.05 and 2927.11. As such, if previously unidentified human remains are discovered during construction, work in that portion of the project will stop immediately. The remains will be covered and/or protected in place in such a way that minimizes further exposure of and damage to the remains. The ODOT project engineer will immediately consult with ODOT-OES and the ODOT District Environmental Coordinator, and immediately notify local law enforcement and/or the County Coroner. If the project has a US Army Corps of Engineers (USACOE) permit issued, the ODOT District Environmental Coordinator must notify ODOT-OES and the USACOE. If the remains are found to be Native American Indian, a treatment plan will be developed by ODOT-OES and SHPO in consultation with FHWA and appropriate federally recognized Native American Indian Tribes.

FHWA and ODOT-OES will ensure that any treatment and reburial plan is fully implemented. If the remains are not Native American Indian, the appropriate local authority will be consulted to determine final disposition of the remains. Avoidance and preservation in place is the preferred option for treating human remains. FHWA and ODOT-OES will conduct all review and consultation in accordance with *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the Ohio Historical Society, State Historic Preservation Office and the State of Ohio, Department of Transportation Regarding Implementation of the Federal-Aid Highway Program in Ohio (Agreement No. 16734)* (executed *11/30/2011).*

C. For Native American Indian human remains discovered on federal lands, the Federal land managing agency will be responsible for consultation under the *Native American Graves Protection and Repatriation Act of 1990* (PL 101-601). For skeletal remains discovered on property owned by the State of Ohio, ODOT will comply with Section 149.53 of the Ohio Revised Code. Under this section, the Director of the Ohio Historical Society shall determine final disposition of any discovered skeletal remains. FHWA and ODOT-OES will also follow the guidance issued by the COUNCIL, *Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects* (issued 2/23/07).

IV. MONITORING AND REPORTING

Each five (5) years following the execution of this AGREEMENT until it expires or is terminated, FHWA shall provide all parties to this AGREEMENT and the COUNCIL if desired, a summary report detailing work carried out pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in FHWA's efforts to carry out the terms of this AGREEMENT.

V. DISPUTE RESOLUTION

Should any signatory or concurring party to this AGREEMENT object at any time to any actions proposed or the manner in which the terms of this AGREEMENT are implemented, FHWA shall consult with such party to resolve the objection. If FHWA determines that such objection cannot be resolved, FHWA will:

A. Forward all documentation relevant to the dispute, including the FHWA's proposed resolution, to the COUNCIL. The COUNCIL shall provide FHWA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FHWA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the COUNCIL, signatories and concurring parties, and provide them with a copy of this written response. FHWA will then proceed according to its final decision.

B. If the COUNCIL does not provide its advice regarding the dispute within the thirty (30) day time period; FHWA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FHWA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to this AGREEMENT, and provide them and the COUNCIL with a copy of such written response.

C. FHWA's responsibilities to carry out all other actions subject to the terms of this AGREEMENT that are not the subject of the dispute remain unchanged.

VI. AMENDMENTS

This AGREEMENT may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the COUNCIL.

VII. TERMINATION

If any signatory to this AGREEMENT determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment pursuant to Stipulation VI above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate this AGREEMENT upon written notification to the other signatories.

Once the AGREEMENT is terminated, and prior to work continuing on the UNDERTAKING, FHWA must either (a) execute a new agreement pursuant to 36 C.F.R. § 800.6, or (b) request, take into account, and respond to the comments of the COUNCIL under 36 C.F.R. § 800.7. FHWA shall notify the signatories as to the course of action it will pursue.

EXECUTION of this AGREEMENT by the FHWA, ODOT, and SHPO, and implementation of its terms, is evidence the FHWA has taken into account the effects of this UNDERTAKING on the B&O Freight and Storage Building/Longworth Hall, listed on the NRHP (86003521), located at 700 Pete Rose Way (Second Street), and has afforded the COUNCIL an opportunity to comment.

SIGNATORIES:

_____ Date _____

Laura S. Leffler, Division Administrator
Federal Highway Administration, Ohio Division,

_____ Date_____

Mark J. Epstein, Department Head, Resource Protection and Reviews
Ohio State Historic Preservation Officer

_____ Date _____

Jerry Wray, Director
Ohio Department of Transportation

Concurring:

_____ Date_____

Michael W. Hancock, Secretary
Kentucky Transportation Cabinet

_____ Date _____

Mark Dennen
Kentucky State Historic Preservation Office

_____Date_____

Margo Warminski
Cincinnati Preservation Association

_____Date_____

Michael Schweitzer
Longworth Hall

_____Date_____

Steve Schuckman
Cincinnati Parks

_____Date_____

Norman Kattelman
Dayton Street Historic District