

STP/SNK Roadway Projects

Project Name	Western Hills Viaduct Replacement Project
Applicant Name	Hamilton County Engineer Ted Hubbard
Applicant Title	Hamilton County Engineer
Email	Ted.Hubbard@Hamilton-co.org
Address	138 East Court Street, Room 700 Cincinnati, OH 45202
Contact Name	Bill Shefcik
Phone	+15133525273

The Western Hills Viaduct Replacement project will reconstruct the deteriorated viaduct. Built in 1932, with a major rehabilitation in 1977, the 86-year old structure spans 0.5 miles over the Mill Creek Valley, which includes local arterials, Interstate I-75, and the CSX Queensgate classification and intermodal facilities, including the Norfolk Southern mainline tracks.

While significant maintenance has been performed on the Western Hills Viaduct (WHV) over its 86 years, it has been determined that rehabilitation is not reasonable given all of the transportation challenges related to its design:

The project will construct a new bridge to the south of the existing viaduct. (See attachment within the appendix of this application which shows the proposed alignment and configuration of the new structure) The new bridge will meet all current safety and design standards, integrate pedestrian and bicycle facilities, and create an intuitive connection to the Interstate system from the lower deck in coordination with the I-75 Brent Spence Bridge Project. The long span design concepts will allow for construction over the railroads with minimal disruption to their operations. The location of the new bridge will also allow for minimal disruption to existing traffic flow throughout much of the construction.

As a bridge serving 55,000 vehicles per day (including 250 buses), it is a primary and vital connection for nearly a third of the city's population living west of I-75. West-side residents in inner-city neighborhoods and beyond the I-275 beltway commute to the region's two largest employment centers east of I-75, Downtown (southeast) and Uptown (northeast), primarily via the WHV. A significant number of them commute by buses that do not have efficient alternative routes due to the radial nature of the city's thoroughfare system. Almost half of Cincinnati zero-car households are located west of I-75 and rely on Metro bus service. The WHV replacement project also provides an opportunity to incorporate bicycle and pedestrian facilities that do not currently exist.

Given the significant cost of the overall project, the project partners have determined that a phased approach is best for the continuity of construction and preparation for the large bridge replacement. Currently, the project is separated into six separate phases. The individual phases are described below. Most of the phases could be performed concurrently. The phasing plan in graphical form is included as an attachment in the appendix of this application.

Phase 1 – Western Approach Demolition and Reconstruction (ODOT PID 105314)

Work on this phase will include removal of the western plaza to the extent possible while still maintaining traffic on the existing viaduct; demolishing buildings and removing existing bill board; filling and grading the western approach and constructing new retaining walls where practical and where they can be constructed in a manner

Upload Project Location Map	http://funding.oki.org/wp-content/uploads/ninja-forms/4/Western-Hills-Viaduct-Vicinity-Map.jpg
design FY	
designrequested	
design local match	
Design Total	\$0.00
Design Match Percent	0%
PE fiscal Year	
perequested	
pematch	
PE Total	\$0.00
PE Match Percent	0%
Right-of-Way FY	
rowrequested	
rowmatch	
Rowtotal	\$0.00
Row Match Percent	0%
utilitesFY	
utilitiesrequested	
utilitiesmatch	

Utilities Total	\$0.00
Utilities Match Percent	0%
constructionfiscalyear	7500000
constructionrequested	6000000
constructionmatch	1500000
Construction Total	\$7,500,000.00
Construction Match Percent	20.00%
All Requested Totals	\$6,000,000.00
All Match Totals	\$1,500,000.00
All Project Total	\$7,500,000.00
All Match Percent	20.00%
Bike Fiscal Year	
bicyclerequested	
Bike Total Match	
All bike Total	0.00

<p>Add KYTC "State Forces" oversight charge of 10% of design cost or minimum \$5000 to total design amount. Attach a certified cost estimate.</p>	<p>http://funding.oki.org/wp-content/uploads/ninja-forms/4/STP-WHV-App-Cost-Estimate.pdf</p>
<p>An adopted ADA Transition Plan is in place for our jurisdiction.</p>	<p>yes</p>
<p>Date of Adoption, if applicable</p>	<p>2000</p>
<p>An adopted Title VI Plan is in place.</p>	<p>yes</p>
<p>Date of Adoption, if applicable Copy</p>	<p>2000, Revised 2011</p>
<p>I understand that non-federal match is required as a condition of receiving federal funds and hereby pledge those funds for this project.</p>	<p>yes</p>
<p>I understand that as the applicant, I am responsible for providing funds for cost overruns. If additional federal funds are received our jurisdiction will provide non-federal funds as match.</p>	<p>yes</p>
<p>I understand that if we accept federal funds and cancel or delay the project that future applications to OKI may be subject to penalty as described in the application.</p>	<p>yes</p>

I understand that as a condition of receiving federal funds, I hereby pledge to maintain the federal investment in a reasonable and prudent manner through its useful life.	yes
Name	Hamilton County Engineer Ted Hubbard
Title	Hamilton County Engineer
Organization	Hamilton County Engineer's Office
Date	5/31/2018
What is the existing safety crash rate for the project area?	250 to 500 crashes per HMVM
Improvement Type	Modernize Roadway
With a Crash Reduction Factor:	20
ADT	56994
Source of ADT Data	OKI
What is the Travel Time Index?	less-than-1-2
What is the impact of your project on Travel Time?	low

What are the truck traffic volumes in the project area? Trucks/day.	2336
% of ADT	4.1
Source	OKI
Pavement Condition	169.56
Bridge Condition	2.0
Complete Streets: Which modes will be accommodated in the completed project? Check all that apply.	motor-vehicle, fixed-transit-route, pedestrian-facility, four
What is the current status of the project?	p-e-and-environmental-complete
Will your project have any impact(s) on any of the following OKI identified Environmental Justice groups? Check all that apply.	Low-income, minority
Describe any direct or indirect permanent benefits of your project on the identified EJ groups?	The project will offer improved mobility for motor vehicles including transit, and greater accessibility for pedestrians and bicycles. This project compliments the bike and pedestrian facilities being constructed as part of the Lick Run, and the existing facilities on Central Parkway.

<p>During the implementation phase, will the project have a temporary or permanent negative impact on any of the OKI identified EJ groups listed above? If yes, please describe the impact and how it will be mitigated:</p>	<p>Yes. As with any road/bridge improvement project, construction will have a temporary impact on the communities. These may include sidewalk closures, bus stop relocations, and temporary roadway or lane closures. However, to the extent possible during construction, access will be maintained to all bus stops and sidewalks. Construction signs will meet MUTCD standards to aid in visibility. Press releases and announcements will be issued through all media outlets to update the project's status, and list of local and regional stakeholders is continuously being developed to ensure proper notification. Example of stakeholders include nearby residents, local employers, schools, community councils, fire, police, bus service providers, Millcreek organizations, an historic district, Hamilton County, City of Cincinnati and surrounding jurisdictions like Green and Delhi Townships and the City of Cheviot.</p>
<p>Will the completed project have a negative impact on any of the OKI identified EJ groups? If yes, please describe the permanent negative impact(s) and how it will be mitigated:</p>	<p>No.</p>

Please outline your communication plan with any of the OKI identified EJ groups related to the project. (i.e. public meetings, bilingual information, develop community liaisons):

Due to the intense public interest in the project, the public involvement process is planned to exceed the minimum level required through federal and state guidelines. Public opinion has been gathered through public meetings in the preliminary design phase with information collected using Audience Response System hardware and software, allowing for high quality public participation. As detailed design advances, public meetings will be held at strategic points of design progress,

In November of 2017, the Westwood Civic Association approved a motion to create a new group called the Western Hills Viaduct Coalition. The first meeting of the group was held in February of 2018 with County and City participation. The intent of the Coalition is to act as a unified voice on behalf of all member organizations, institutions, businesses, and residents, to serve as a central point and information, continue to apply public pressure on parties to quickly resolve funding gaps, ensure attendance at critical meetings, make sure community concerns are heard, encourage dialogue with lawmakers and activities related to seeing real and substantive progress on the viaduct. The group is currently composed of Cincinnati neighborhoods west and east of the viaduct plus the City of Cheviot, Green Township, Delhi Township, the Cincinnati Chamber of Commerce and the River West Working Group.

Employment,
Employment Bonus and
Investment Bonus: How
does the project provide
economic vitality in the
project area?

The design of the new viaduct, in coordination with the proposed interchange with I-75 as part of the Brent Spence Project, will provide for more efficient and intuitive travel for the many users of the facility – moving high volumes of people and goods across the Mill Creek Valley and railroad yards. Separating interstate bound traffic from local trips will allow for more reliable travel times across the viaduct, with reduced impacts from incidents on the highway. Of note is the benefit of the design to accommodate bikes and pedestrians in a safer and more direct manner for local travel than can be done on the existing street and bridge network.

The Mill Creek Valley and associated arterials, Beekman Street and Spring Grove Avenue, are home to many trucking and manufacturing facilities, many with links to the adjacent rail yards.

The Mill Creek Valley is a focus area for potential job growth in the GO Cincinnati Plan:

http://www.cincinnati-oh.gov/planning/assets/File/go_cincinnati_summary.pdf and Agenda 360: <http://www.agenda360.org/>).

From the GO Cincinnati Plan, the place based recommendations include:

1. Focus economic development initiatives and investment in the three existing economic opportunity areas identified as Downtown, Uptown, Over-The-Rhine and add three new areas of Seymour/Reading Road Corridor, Queensgate/South Mill Creek Corridor and Madison Road Corridor.
2. To support development potential in the place-based strategies and capture a greater share of projected new job creation in the region, the City should target business attraction, retention, and workforce development initiatives to stimulate growth in the following nine business and industry sectors: Life Sciences, Chemical Manufacturing, Professional/Technical Services, Aerospace, Management of Companies, Advanced Manufacturing, Insurance and Banking, Hospitals, Educational Services

The WHV is a vital link to two major destinations that geographically extend beyond the project area but are significant as destinations that are linked by the WHV with little redundancy. West side residents, students, and business owners rely on the WHV to commute to or do business in Downtown and Uptown. The Downtown rebirth/expansion over the past 10 years is estimated at \$2 billion in private and public investment strategically targeted in the Central Business District (CBD), Cincinnati Riverfront, and the Over the Rhine historic neighborhood. The Uptown area, with an economic impact of over \$3 billion, is home to nationally ranked education, medical and research facilities, including, the University of Cincinnati, Cincinnati State Technical and Community College, Xavier University, University Hospital, Children's Hospital, Shriners Hospital, Veterans Hospital,

<p>Air Quality/Energy: Will the project reduce Vehicle Miles Traveled (VMT), Vehicle Hours Traveled (VHT) or both?</p>	<p>vmt-reduced, vht-reduced</p>
<p>Please explain:</p>	<p>The project primarily replaces existing deteriorated infrastructure but minimal savings will be realized for VMT, VHT and emissions in comparison to the existing viaduct. The project will construct new bike and pedestrian facilities. The project will also accommodate future rail and/or Bus Rapid Transit. It also will incorporate conduit systems and other related infrastructure as the backbone for connection to ARTIMIS and other potential SMART technologies. Reduction of VMT and VHT are anticipated as a result.</p>
<p>Does this project create new or enhance existing intermodal connections?</p>	<p>yes</p>
<p>If yes, please describe:</p>	<p>The project will add improved and expanded bicycle and pedestrian facilities from Harrison/Westwood to Central Parkway/McMillan.</p> <p>Also, the new viaduct will be a long span structure of approximately 770 feet, instead of the current design with 60 foot spacing of piers within the rail yard. This will allow for improved sight distance and additional space for rail employees to maneuver through the yards in the short term. It will also allow for new or realigned tracks for freight and passenger rail efficiency and capacity improvements in the future.</p> <p>Queensgate Yard, within the Mill Creek Valley, is part of an important intermodal transportation network that connects with the interstates and the intermodal barge facilities along the Ohio River which make up the "Port of Cincinnati." This port moves nearly 48 million tons of cargo per year making it the 13th busiest port in the United States. Opportunities for expansion in the yard can only improve the flow of freight throughout the area by truck, train and barge.</p> <p>Close coordination has been and will continue to be ongoing with the railroads to accommodate their rail services, including the rail/truck intermodal facility on the east side of the project.</p>
<p>% replacement</p>	<p>85</p>

<p>% expansion</p>	<p>15</p>
<p>Please Explain</p>	<p>The project will add one lane to the lower deck, increasing the total number of lanes from 7 (4 lanes on the top deck and 3 lanes on the lower deck) to 8 (4 lanes on the top deck and 4 lanes on the lower deck). The project will also add improved and expanded bicycle and pedestrian facilities.</p>
<p>Please indicate all that apply</p>	<p>is-the-project-located-along-a-functionally-classified-major-collector-or-higher-roadway-with-urban-development-characteristics, is-the-project-located-in-a-town-neighborhood-center-or-downtown-area</p>
<p>Explain:</p>	<p>The Western Hills Viaduct is classified as an Urban Principal Arterial and is located near and critical to both the downtown and uptown areas of the City of Cincinnati.</p>
<p>Will this project serve brownfield or greyfield properties, or areas where infrastructure is underutilized?</p>	<p>yes</p>
<p>Explain:</p>	<p>There are existing industrial sites that are no longer in use or underutilized along the State Avenue and Beekman Street corridors at the west end of the Viaduct. The Lick Run Valley project has removed many vacant buildings in the Queen City and Westwood corridors, and will create a new green channel and improved environment for neighborhood revitalization. It is hoped that this effort may also increase the potential for redevelopment of the industrialized portion of the neighborhood closer to State and Beekman. The viaduct is key to reliable access into these sites for truck traffic coming from Spring Grove Avenue and Interstate 75. The old Lunkenheimer building at the northwest corner of Queen city and Beekman is the most visible example of an industrial brownfield property.</p>

Are efforts to avoid, minimize or offset/compensate for environmental impacts planned as part of this project (e.g. wetlands, forests, streams, noise)?	yes
Explain:	The Mill Creek and portions of its watershed will be impacted by the project. Measures will be taken to minimize effect to the stream. As part of the NEPA process, a noise analysis was conducted to ensure the improvement was negatively impacting the surrounding area.
Are green infrastructure strategies planned as part of this project (e.g. contiguous corridors to reduce habitat fragmentation, innovative stormwater runoff techniques)?	yes
Explain:	The project will include improvements to stormwater runoff and will improve and expand bicycle and pedestrian facilities.
Does this project abut or directly impact any potentially sensitive environmental resources (as identified in state conservation plans, maps or inventories)?	no
Explain:	
Comprehensive Plan (or other): Is the project consistent with the jurisdiction's comprehensive plan?	yes
Title of Plan:	Plan Cincinnati, a comprehensive plan going forward

Date Adopted:	November 21, 2012
Contact Person:	Katherine Keough-Jurs, City of Cincinnati Planning Department
Page Number(s) where project is identified and/or referenced:	Connect Section, Page 135 https://www.cincinnati-oh.gov/buildings/assets/File/final_plan_cincinnati_document_11-21-12.pdf
Planning Area: Please identify the planning area (location) in relation to the proposed transportation project.	
Public Participation: Generally describe the public participation process for the plan (Include page references to specific examples, where applicable).	

<p>Core Contents: Generally describe the contents of the applicable plan related to the following elements: transportation, land use, economic development, public facilities, housing, natural resources, recreation, intergovernmental coordination and capital improvements. For example, are each of these elements included in the plan? Was appropriate inventory and analysis completed for these elements? Were goals objectives and policies set for these elements? If not, why not (e.g., resource limitations, characteristics of the jurisdictions)?</p>	
<p>Land Use/Transportation Relationship: Generally describe the relationship between land use and the proposed transportation project as set forth in the plan? For example, is new development in the area creating need for the project? Is new development planned for/expected that the project will serve? (Include page references to specific examples).</p>	

Local Match: How much additional local match is being provided OVER the required match?	0
Project Delivery History: Has the applicant had any programmed projects miss their originally programmed date?	no
Specify projects: (see application instructions for negative points associated with this factor)	

<p>Technology: Describe elements of your project that encourage the implementation of new technologies, automation, advance materials, etc, in transportation.</p>	<p>The City of Cincinnati and Hamilton County are coordinating the design and construction efforts for the Western Hills Viaduct. ODOT engineers have worked directly with the City and County engineers in the study and preliminary design of alternatives for this Viaduct in coordination with the I-75 Brent Spence Bridge Project. The design also considers future rail and bus rapid transit alignments on the viaduct and freight rail expansion below the viaduct, shows the understanding of all parties that planning for the future and designing for multiple modes and uses is essential to the function of the overall transportation system.</p> <p>The project incorporates a more intuitive design with fewer conflicts associated with weaving and turning vehicles at intersection, due to the use of the lower deck for highway traffic, the upper deck for local traffic, and a separate facility for bicycles and pedestrians. These traditional “proven safety countermeasures” are considered in the overall design, and allow for simpler directional signing, lane use signing, and signal operations. This will improve efficiency and allow for simpler operations for future autonomous vehicles.</p> <p>The bridge design will also consider innovative technologies for personal safety, particularly for the pedestrian and bike facility along the 0.5 mile length. Other items can be considered for security of the infrastructure, such as the bridge components and the rail facilities below. Interconnection to ARTIMIS for real time traffic information (such as WAZE) or will also be considered, as well as other technologies as they progress relative to vehicle automation over the life of the project development.</p> <p>There are also safety related tools, technologies and practices as part of the FHWA Every Day Counts Program that may be applicable to this project, such as Bridge: Prefabricated Bridge Elements and Systems; Construction: Design Build; and Transportation Partnering: Improving DOT and Railroad Coordination. The City, County and their consultants will consider innovative delivery, technology, and coordination processes throughout design development.</p>
<p>Supplemental Information Provided by the Applicant Insert Links or supplemental information as appropriate (maximum 5 pages please)</p>	<p>http://funding.oki.org/wp-content/uploads/ninja-forms/4/Western-Hills-Viaduct-HCEO-Support-Letter-for-STP-Application-0.pdf, http://funding.oki.org/wp-content/uploads/ninja-forms/4/WHV-Alternative-T-Modified-2018-02-15.pdf, http://funding.oki.org/wp-content/uploads/ninja-forms/4/WHV-Revised-4-20-2018-Project-Phasing-Plan.pdf, http://funding.oki.org/wp-content/uploads/ninja-forms/4/Cincinnati-Area-Freight-Intermodal-Network.jpg</p>