

RE-IMAGINING WEST KENTUCKY STREET

FROM DIXIE HIGHWAY TO 4TH STREET



ACKNOWLEDGMENTS

Mayor Greg Fischer

Louisville Metro Council President David James

Louisville Forward

Gretchen Milliken, AIA, Director, Office of Advanced Planning Claire Yates, Urban Planner, Office of Advanced Planning Scott Love, Economic Development Manager, Louisville Forward

West Kentucky Street Corridor Plan Steering Committee

Jon Baker, Wyatt, Tarrant & Combs LLP Mara Baker, Spalding University Jason Canuel, Louisville Metro Parks Thomas Clifton, Louisville & Paducah Railway Billy Gilkey, Sr., Trainmaster, Paducah & Louisville Railway Ed Gunn, Packaging Unlimited John Hauber, V. G. Reed & Sons Jeremy Kramer, Anacostia Railroad Company Matt Nidlinger, Consolidated Grain & Barge Stephen Peterson, Limerick Association for Neighborhood Development, Inc. Von Purdy, Simmons College of Kentucky Juanita Rutledge, St. Stephen Baptist Church Tom Scanlan, Bat'on Dr. Frank Smith, Jr., Simmons College of Kentucky Shalanna Taylor, Office of Council President David James Rona Williams, California resident

kolar [RP]+A

Consultant Team

MKSK Strand Associates Kolar Design Robert Pass & Associates





CONTENTS

This corridor plan presents an exciting opportunity for West Kentucky Street to re-introduce itself to the community and be transformed into a dynamic and multi-modal corridor.

Executive Summary	
Section 1: Introduction	n
Study Area & Goals/Ob	bject
What We Heard	

Section 2: Existing Conditions Analysis

Context & Land Use Connectivity & Bicycle Infrastructure

Section 3: Master Plan Vision

Placemaking & Identity Strategy		
Residential Lane	22	
Industrial Gallery	32	
Live Work Learn Play	44	

Section 4: Plan of Action	60
Interim Solutions	62
Recommendation Matrix	64
Rail Crossing Next Steps & Potential Funding	
Order of Magnitude Cost	68

Appendix: Separate Document



4 6 8

12

14

16

18



EXECUTIVE SUMMARY

The West Kentucky Street Corridor Plan re-imagines West Kentucky Street between 4th Street and Dixie highway as a connected corridor with three distinct experiences.

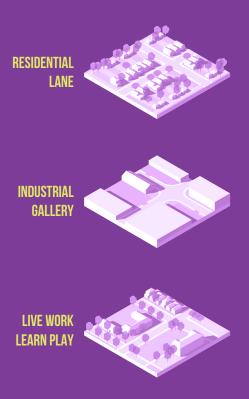
The West Kentucky Street Corridor Plan focuses on West Kentucky Street between 4th Street and Dixie Highway. Launched in August of 2018, this plan establishes a community-driven vision that will transform the corridor into a dynamic and multi-modal street. A diverse corridor with a wide array of land uses, Kentucky Street spans beyond the project boundaries and connects nine neighborhoods, from the Original Highlands to Chickasaw.

The public engagement process for this plan involved multiple meetings, discussions, and activities with residents, business owners, and stakeholders. The process included a Steering Committee of stakeholders, a Mobile Studio that traveled along the corridor to collect feedback, and an Open House that shared a draft vision. Residents and stakeholders guided the development of this plan, generating solutions to current issues while envisioning a corridor that will properly serve future generations. As a result, the plan provides interim, midterm and long-term solutions to enhance connectivity, support safe neighborhoods, and improve the corridor's appeal.

Implementing the ideas and concepts presented in this vision will create a pedestrian- and bike-friendly environment, while continuing to function for industrial and commercial uses. The plan does so by dividing the corridor into three zones, each with a distinct character and solutions tailored to meet the needs of its users. These three zones are: Residential Lane, Industrial Gallery, and Live Work Learn Play.

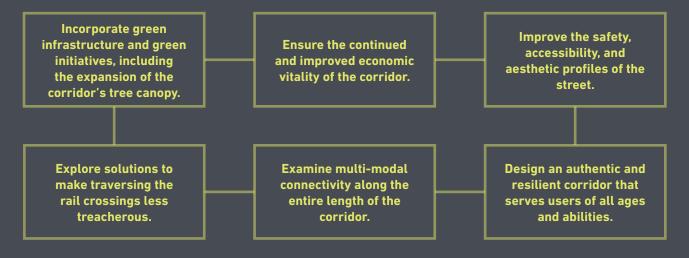
As a living document, the master plan vision is flexible in that it may be implemented as development opportunities arise in the area. Building on momentum already experienced along the corridor, which will soon see an influx of new users with planned athletic facilities for Spalding University at 8th Street and Simmons College at 15th Street, **the time is now to invest in West Kentucky Street.**

ONE CORRIDOR



Woven together at their thresholds, the three zones support a single corridor with three distinct experiences for the motorists, pedestrians, and cyclists that depend on the corridor. In addition to enhancing connectivity, these improvements will support upgraded stormwater management practices and increase the area's tree canopy coverage.

The Project Goals below were developed during the plan's early stages and were used to guide the planning process and its resulting vision.



INTRODUCTION

Launched in August of 2018, the West Kentucky Street Corridor Plan engaged the community through a mobile studio, an open house, and a Steering Committee of stakeholders.

As shown in the graphic below, the planning team examined West Kentucky Street between 4th Street and Dixie Highway, but also looked at a wider study area shaped by the corridor's north-south connections, adjacent properties, and gateways. While the plan's recommendations focus on the corridor itself, they also provide guidance in enhancing the area covered within the greater study area. Home to prominent institutions and businesses, it is a source of economic and cultural vitality for the city. To understand how the community uses the corridor, current issues, and potential opportunities, this process included a public engagement strategy designed to reach the corridor's users. The following pages describe this engagement process and summarize its results.





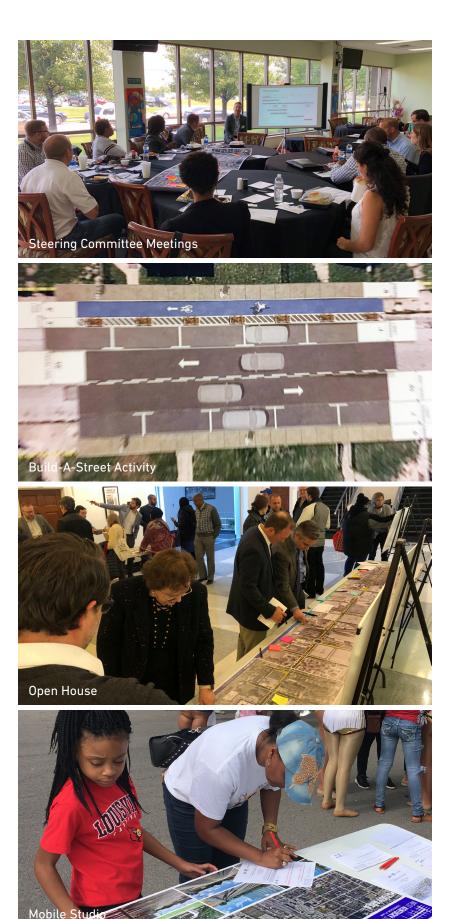
ENGAGEMENT STRATEGY

Given the corridor's boundaries and the diversity of its users, the planning team crafted an engagement strategy designed to engage as much of the community as possible. This included:

• A Steering Committee

representing the area's institutions, businesses, and residents. The group met four times during various stages of the process and helped guide the master plan vision through hands-on activities. This included a Build-A-Street exercise using a streetscape kit of parts. The results of this exercise led to the options illustrated in the master plan vision.

- A Mobile Studio that traveled along the corridor to reach residents, businesses, and students. The studio worked twofold, both hosting stand-alone events and participating in events hosted by institutions in the study area.
- A Corridor Scavenger Hunt with interactive displays along the corridor asked users to rate the corridor, provide ideas for missing features, and inform the planning team about how they currently use West Kentucky Street.
- An Open House sharing the plan's deliverables in collaboration with other planning efforts nearby. The planning team hosted an Open House on January 31, 2019, in collaboration with the Library Lane Master Plan, and participated in a community meeting for the California-Victory Park Neighborhood Plan on February 9, 2019.
- A web presence sharing the planning team's progress and community engagement throughout the project.



I WISH WEST KENTUCKY STREET WAS...

We asked community members how they would like to see the corridor improved. Responses focused on making the corridor more pedestrianfriendly, better connected, and safer at railroad crossings. "More family-friendly. It needs to be beautified (flowers, plants, signage, etc.) and the railroad crossings between 12th and 15th Streets need to be fixed/resolved."



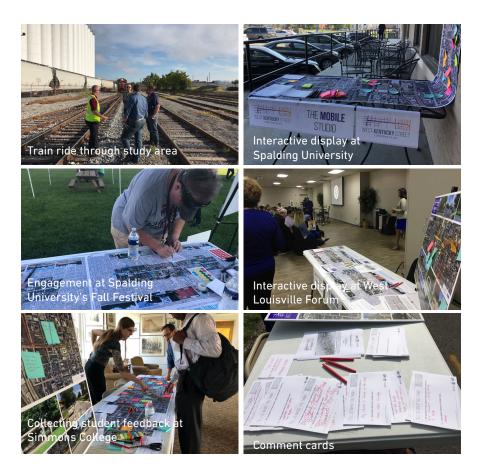
MY FAVORITE THING ABOUT WEST KENTUCKY STREET IS...

We asked community members what they already like about West Kentucky Street and what is working well along the corridor. The responses included the corridor's connectivity, as well as its great churches, businesses, and institutions of higher learning.



MOBILE STUDIO

In order to collect feedback, the planning team set up a Mobile Studio to travel along the corridor and meet members of the community where they work, live, and learn. This included interactive displays, activities to identify strengths, weaknesses and opportunities, comment cards with targeted questions about the corridor, and even a train ride. The graphic below shows the results of one of such activities, and includes feedback from a wide range of the community collected at various mobile studio engagements.



STRENGTHS, WEAKNESSES & OPPORTUNITIES

Through the Mobile Studio, we asked community members to show us on a map where West Kentucky Street's strengths, weaknesses, and opportunities are located. Below is a summary of what we heard:

Top 3 STRFNGTHS



2



Simmons College

Spalding Athletics

St. Stephen Church

Top 3 **WEAKNESSES**





2 Poor

Crossing

Rail



Sidewalks

Poor Paving Conditions

Top 3 **OPPORTUNITIES**



Industrial Core



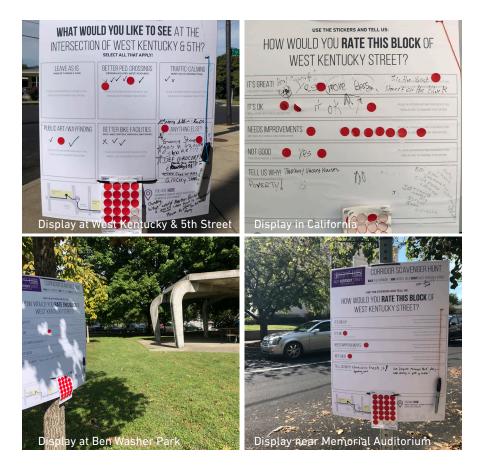
Ben Washer Park Area



3 California Neighborhood

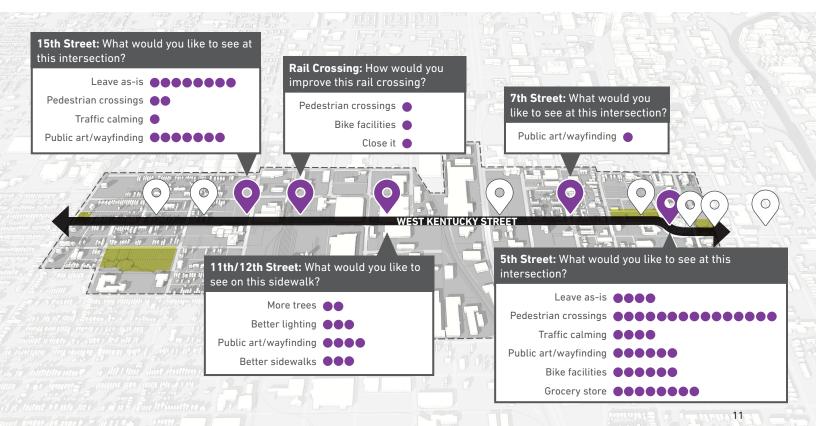
SCAVENGER HUNT

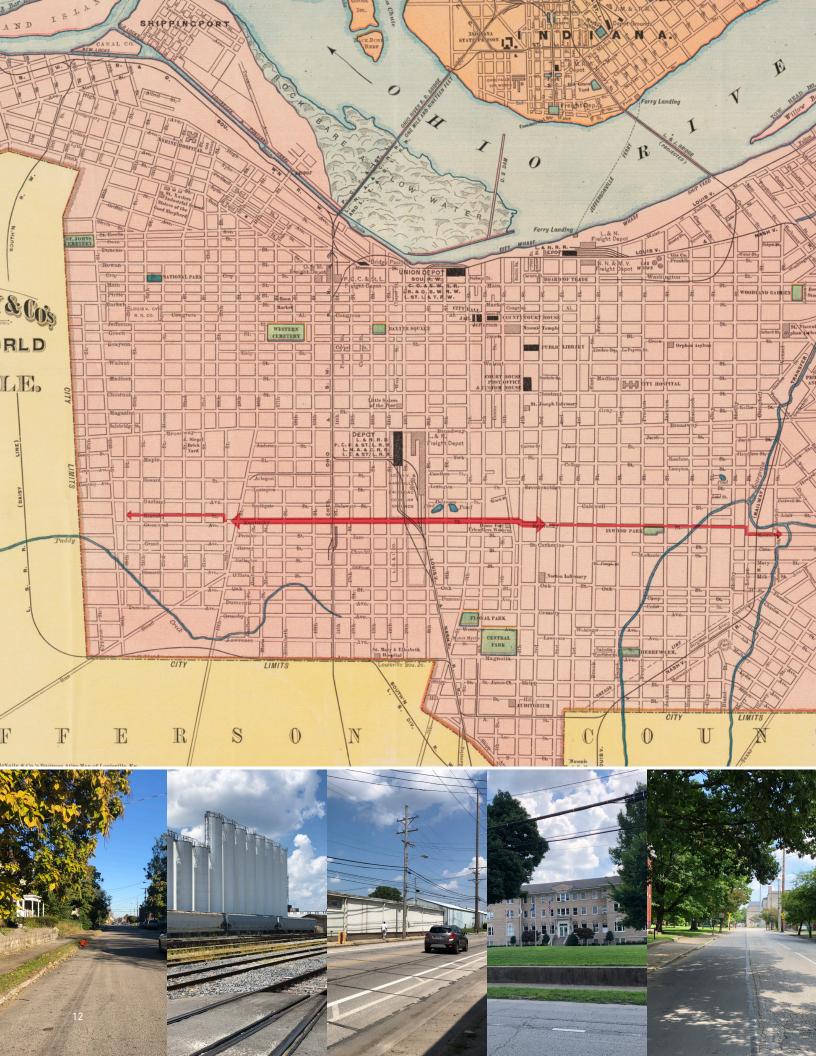
Between October 2018 and January 2019, the planning team installed 12 interactive displays along the corridor, asking the community how they perceive West Kentucky Street. The activities, which could be answered through stickers or markers left with the displays, included rating the quality of sidewalks and intersections and sharing improvements they would like to see to along the corridor. The displays received heavy use, with the most answers recorded near the intersection of West Kentucky Street and 5th Street. Responses generally noted a lack of street trees and lighting and suggested improving the corridor through improved intersections, enhanced crossings, and installments of art, wayfinding, and placemaking elements.



SCAVENGER HUNT RESULTS

Five of the twelve displays asked community members to identify improvements they would like to see along the corridor. Below are the collected responses, which suggest better crossings and more public art.





EXISTING CONDITIONS

The West Kentucky Street corridor is an east-west connector between California, Limerick, and Old Louisville. Home to colleges, churches, homes, and industrial businesses, the corridor is both culturally and economically significant.

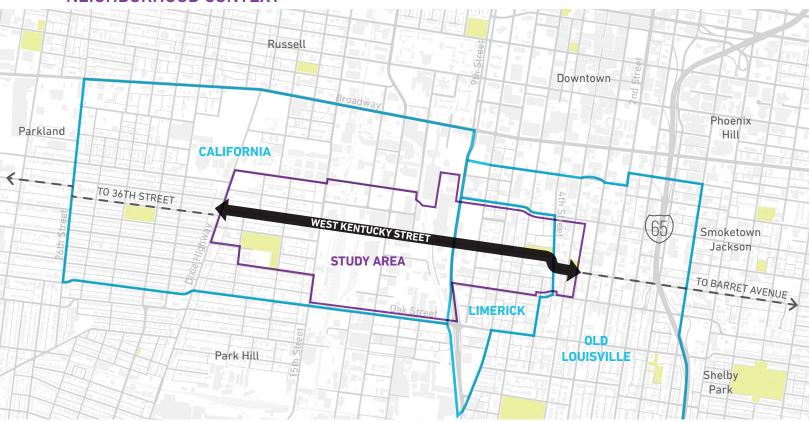
Beginning at Barret Avenue and terminating near Southwestern Parkway, Kentucky Street connects nine neighborhoods, from the Original Highlands to Chickasaw. Despite running through multiple neighborhoods, the corridor faces significant challenges in connectivity. These include grid and intersection misalignments, railroad crossings, street closures, and vacated rights-of-way.

This plan focuses on the segment of West Kentucky Street between 4th Street and Dixie Highway. The following pages outline an existing conditions analysis for this portion of West Kentucky Street. This includes an examination of neighborhood context, current land uses, connectivity and circulation issues, and bicycle infrastructure. Taken together, this analysis was used as a framework for establishing a cohesive vision for the corridor that would improve the corridor's aesthetics while maintaining and enhancing its functionality.

The existing conditions analysis underscored one of the corridor's greatest challenges — a lack of cohesion and a fractured functionality. A road closure at 15th Street, multiple rail crossings, and multiple changes in road configurations and directionality make traveling the corridor a confusing experience. In addition, shifts in the street grid layered with realignments made in the 1950's result in poor north-south connectivity and wide intersections. The result is a corridor designed to carry trucks and vehicles with little regard for pedestrians.



NORTH \rightarrow



NEIGHBORHOOD CONTEXT

The West Kentucky Street corridor and its surrounding study area is located within three neighborhoods south of Downtown Louisville: California, Limerick, and Old Louisville. The majority of the study area, as shown in the graphic above, is contained within the boundaries of California between Dixie Highway and 9th Street. Between 9th Street and 5th Street, the corridor runs through the Limerick neighborhood. East of 5th Street, a small portion of the study area is within the boundaries of Old Louisville. These three neighborhoods exhibit distinct characteristics, with West Kentucky Street acting as a common thread. Nonetheless, the corridor changes both aesthetically and functionally between and within these neighborhoods as it reacts to its context and the needs of its users.

It is important to remember that this corridor is part of a street network that touches nine neighborhoods, from the Original Highlands to Chickasaw. High street network connectivity improves traffic flow and offers travel options for all users.

The 1.4-mile The Study Area corridor is a... includes... 30-minute 2,283 Walk Residents 10-minute 1.425 **Bike Ride Housing Units** 14% **Owners** 68% Renters 5-minute 17% Drive Vacancy

LAND USES

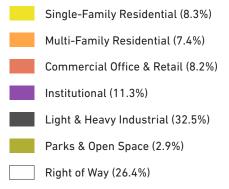


The corridor includes a diverse collection of land uses, ranging from heavy industrial to singlefamily residential.

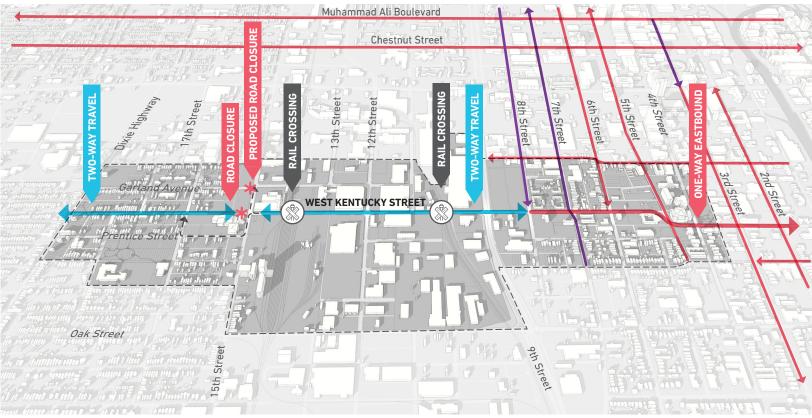
Between Dixie Highway and 15th Street, West Kentucky Street is primarily residential in character. Single-family homes line the street, with front yards facing the corridor. St. Stephen Church and planned athletic facilities for Simmons College of Kentucky anchor the 15th Street intersection.

The corridor abruptly transitions into industrial uses between 15th Street and 9th Street. The industrial uses, which collectively hold the largest percentage of the study area, exhibit large building footprints and long façades facing the corridor. This portion of the corridor also includes uses related to the railroad industry, such as the Paducah & Louisville Railway yard and Consolidated Grain & Barge. Between 8th Street and 9th Street, industrial uses exist near planned athletic fields and vacant land.

East of 9th Street, the corridor exhibits a wide mix of uses that includes residential, institutional and parks and open space. This portion of the study area reflects the transitional character of downtown-adjacent neighborhoods.



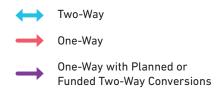
CIRCULATION & ACCESS



Similar to other downtown-adjacent streets, Kentucky Street functions as a one-way street between 8th Street and Barret Avenue. The corridor runs eastbound in a oneway pair with Breckinridge Street, which runs westbound, and is generally parallel in its alignment. Both streets carry vehicular traffic in and out of the downtown area from eastern neighborhoods.

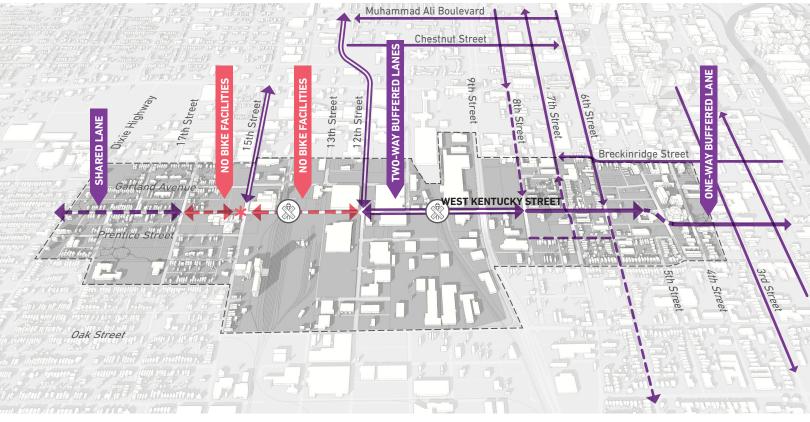
East of 9th Street toward downtown, other one-way pairs follow a similar pattern that was implemented in the 1950's. Following a 2009 Two-Way Street Study completed for the Louisville Downtown Development Corporation (LDDC) and the completion of the Ohio River Bridges Project in 2016, Louisville Metro has begun planned conversions for streets in and around downtown. Conversions are planned for 7th Street between Main and Saint Catherine Streets and 8th Street between Market and Kentucky Streets. West of 8th Street, West Kentucky Street transitions to two-way travel toward 36th Street.

Despite this two-way travel, the portion of West Kentucky Street between Dixie Highway and 8th Street exhibits its own challenges in connectivity. The first challenge is two at-grade rail crossings, one of which contains nine track crossings. This crossing exhibits poor pavement conditions, uneven surfaces, and a lack of sidewalks. The second challenge is a road closure at 15th Street, with vacated right-of-way at St. Stephen Church.





BICYCLE INFRASTRUCTURE



Within the last five years, bicycle infrastructure has been incrementally added to Louisville's streets to create a comprehensive network of bike lanes, sharrows, and off-street paths. The current bike system closely follows the city's one-way network of streets. This is partly due to excess vehicular lanes on one-way streets designed for faster vehicular speeds. For instance, one-way buffered bike lanes are included along 6th Street, 7th Street, and Breckinridge Street. As these streets are retrofitted for two-way conversions, bike infrastructure may need to be replaced with travel lanes or on-street parking to accommodate an increase in vehicular traffic.

West Kentucky Street includes buffered bike lanes within both its one- and two-way segments. The two-way segment between 12th Street and 8th Street includes five-foot bike lanes on both sides of the road and a two-foot painted buffer. As the corridor transitions to one-way travel between 8th Street and Barret Avenue, a singledirectionality buffered six-foot bike lane takes up a 10' section of the street. This bike lane provides a seamless connection to eastern neighborhoods and terminates at Barret Avenue.

Sharrow or Shared Lane
Bike Lanes (two-way)
Bike Lane (one-way)
No on-street facility



MASTER PLAN VISION: ONE CORRIDOR | 3 EXPERIENCES

Following the analysis in the previous chapter and the feedback collected through the public engagement process, the planning team divided the corridor into three segments, shown in the graphics below. Within each of these segments, West Kentucky Street shifts in character, scale, functionality, and users. The vision for each segment is right-sized accordingly and tailored for its individual context, while making all of West Kentucky Street a great corridor for all of its users, whether they are driving, walking, or riding a bike.



Dixie Hwy to 15th Street: Transform West Kentucky Street into a high-quality neighborhood street.

INDUSTRIAL GALLERY

15th Street to 9th Street: Activate the industrial portion of the corridor through art and placemaking.

LIVE WORK LEARN PLAY

9th Street to 4th Street: Create a campus-like front door for the area's colleges, residents, and institutions.













WAYFINDING & Placemaking

Identification & Navigation

Create a sense of arrival and belonging. Establish a consistent rhythm and identity along the corridor. Gateways bookend the Limerick and California neighborhoods. Totems mark transition points and direct to east and west destinations. Sidewalk graphics activate major intersections and indicate walking time/distance to points ahead.

Placemaking & Storytelling

Provide a story in moments of pause along the corridor. Changeable banners call attention to events and seasonal activities around Simmons College. Interpretive storytelling of historical figures and history of neighborhoods.

Quick Wins & Public Programs

Transform the corridor with highly visible and colorful community engagement works. Construction barriers are quick wins that become beautiful mini-murals, creating excitement for things to come.

Note: The cost ranges to the right represent order-of-magnitude costs, in 2019 dollars, suitable for general planning purposes.

These are not intended to represent actual

GATEWAY ID (Primary) \$250K - \$400K



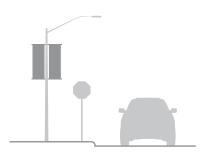
TOTEM ID \$15K – \$25K



GATEWAY ID (Secondary) \$100K - \$250K



SIDEWALK GRAPHICS \$15 - \$20 sq. ft.



BANNERS \$250 - \$500



INTERPRETIVE STORYTELLING \$10K - \$20K (non-digital) \$40K - \$50K (digital)

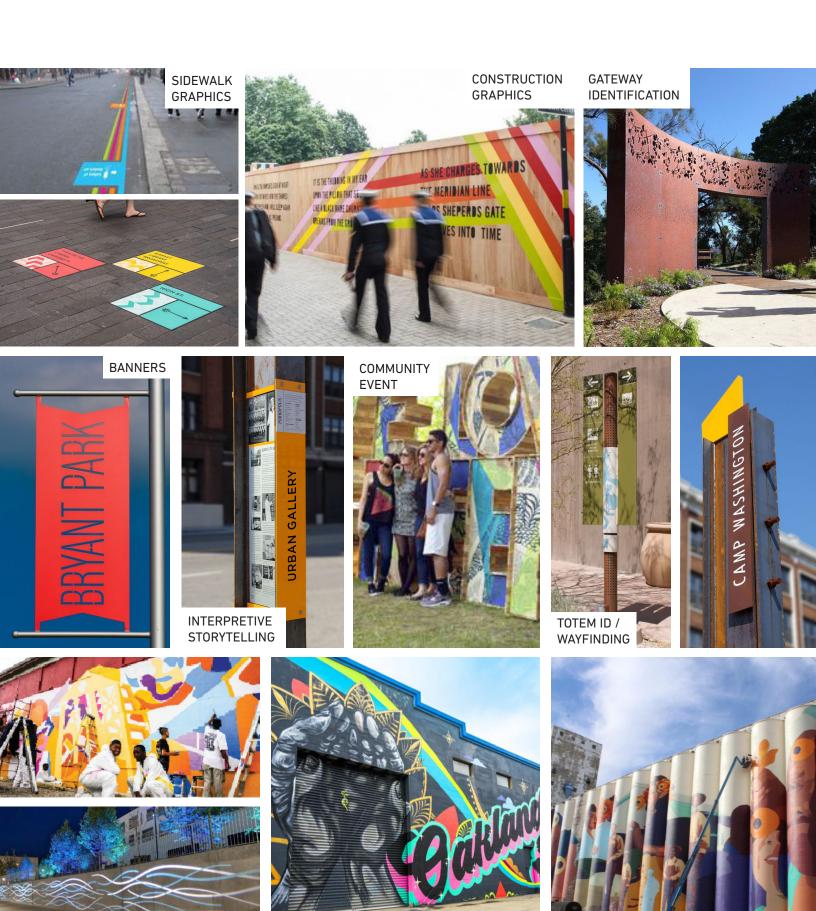


INTERACTIVE PUBLIC ARTWORK / COMMUNITY EVENT & MURALS



TEMPORARY CONSTRUCTION GRAPHICS \$30 - \$40 sq. ft.

project costs.



PUBLIC ARTWORK

PROGRAM

RESIDENTIAL LANE DIXIE HIGHWAY TO 15TH STREET

Between Dixie Highway and 15th Street, West Kentucky Street takes on a residential character. Through most of this segment, single-family homes with 10- to 15-foot front yards line the corridor. As shown in the graphic to the right, the street configuration includes sidewalks and on-street parking on both sides of the street, with two-way travel lanes marked with sharrows.

At the western edge of this segment is the California Leisure Open Space. This 0.35-acre area includes a tree-lined path and a monument sign for the neighborhood. At the eastern edge of this segment is the St. Stephen Church campus. A portion of the West Kentucky Street right-of-way was vacated between 15th Street and 16th Street and is now owned by St. Stephen Church. Consequently, any improvements suggested for this portion of West Kentucky Street are conceptual only. Simmons College of Kentucky has proposed the construction of athletic fields and a mixed-use building just north of St. Stephen Church.



The vision outlined in the following pages aims to make this portion of the corridor a high-quality neighborhood street. This is accomplished through the following projects:

Interim Projects:

- Improve and repair minor pavement conditions, such as potholes.
- Add painted bump-outs at the Dixie Highway, Salem Avenue, 16th Street, and 17th Street intersections.
- Convert the 16th Street intersection to a four-way stop.
- Incorporate neighborhood identity through painted art at existing utility/light poles.

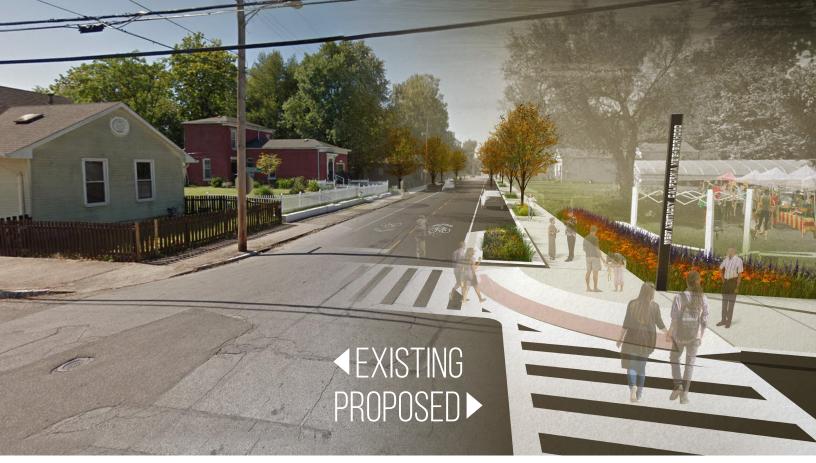
Mid-term Projects:

- Improve and repair sidewalks and street curbs.
- Add planters with street trees.
- Install wayfinding and placemaking elements.

Long-term Projects:

- Install bump-outs with green infrastructure and ADA-compliant crossings at the Dixie Highway and 16th Street intersections.
- Install mid-block bump-outs with stormwater features and street trees.

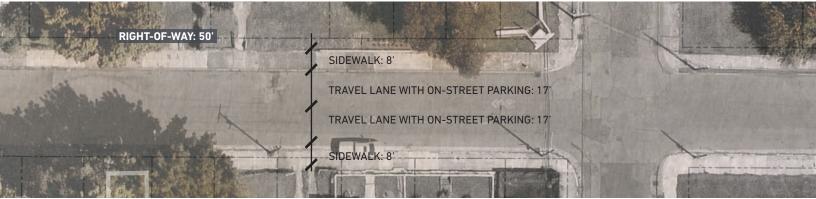
West Kentucky Street at S. 16th Street Looking West



Proposed Street Section



Existing Street Section



FOROFE



RESIDENTIAL LANE **EXISTING CONDITIONS** DIXIE HIGHWAY TO 15TH STREET

Between Dixie Highway and 15th Street, West Kentucky Street suffers from poor pavement and sidewalk conditions. Trees along the street are generally within private property in residential front yards. Near 15th Street, the St. Stephen Church campus includes a vacated portion of West Kentucky Street.

PERM

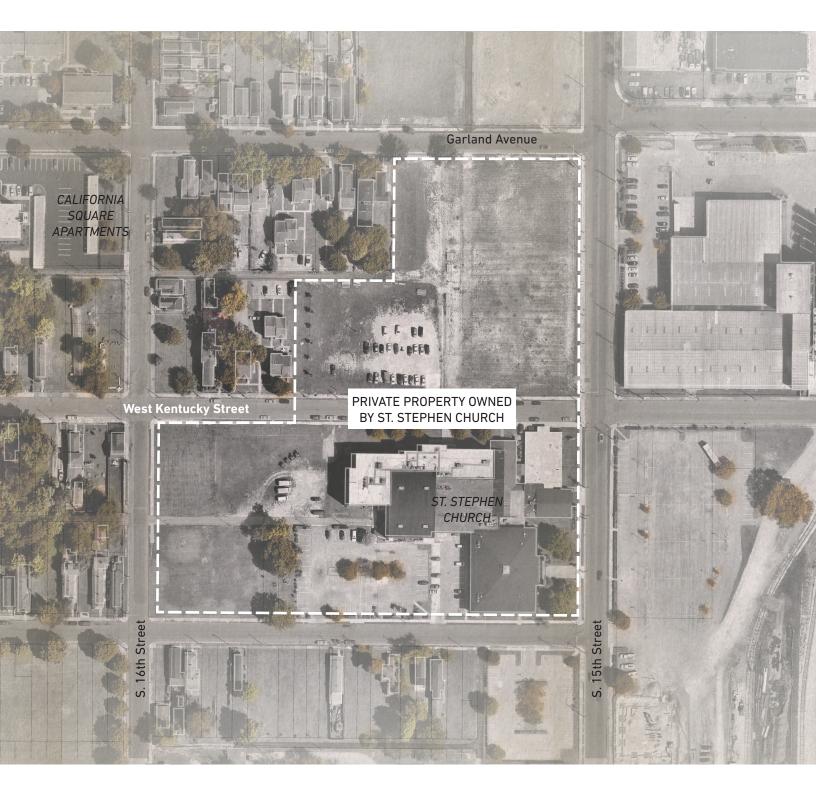
West Kentucky Stree

17th Street

ú.

CALIFORNIA PARK Street

Prentice Street



Ba Fererco



RESIDENTIAL LANE **VISION** DIXIE HIGHWAY TO 15TH STREET

CALIFORNIA LEISURE OPEN SPACE

Between Dixie Highway and 15th Street, West Kentucky Street has the potential to become a high-quality residential street. New street trees, improved sidewalks, mid-block bump-outs, and narrower intersections enhance the pedestrian experience. On-street parking is maintained on both sides of the street, reflecting a need expressed by residents during the public engagement process.

West Kentucky Street

17th Street

S

Prentice Street

RESIDENTIAL LANE

CALIFORNIA

PARK

Garland Avenue

Street

CALIFORNIA

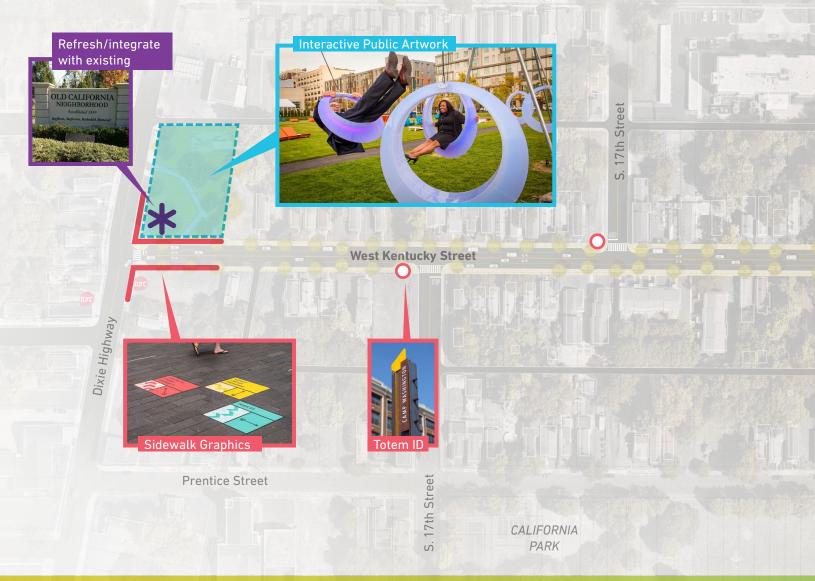
Potential open space improvements to the St. Stephen Church property include a new entry plaza with paths, street trees, and seating areas. A turnaround within the vacated portion of West Kentucky Street may connect to parking lots for the planned Simmons College athletic facilities.





RESIDENTIAL LANE **PLACEMAKING & WAYFINDING** DIXIE HIGHWAY TO 15TH STREET

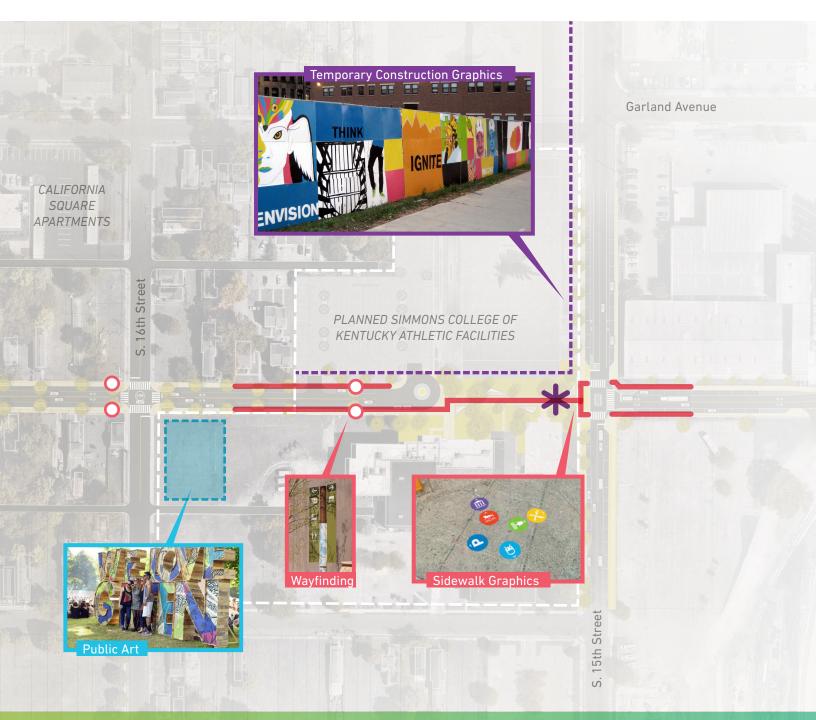
The Residential Lane segment is a critical threshold between California's industrial and residential areas. As such, this segment has the opportunity to become a focal point in the heart of California and can be activated through interactive public art, refreshed signage, and sidewalk graphics.



CALIFORNIA

RESIDENTIAL LANE

- Gateway Identification (Secondary)
 - Totem ID/Wayfinding 🔘
 - Sidewalk Graphics -
 - Interactive Public Artwork
- Temporary Construction Graphics



INDUSTRIAL GALLERY

West Kentucky Street at S. 16th Street Looking West

The future West Kentucky Street will be a highly walkable and bikeable complete street that prioritizes pedestrians and cyclists. This graphic shows potential improvements to the 16th Street intersection, with corner and mid-block bump-outs adding street trees and stormwater features. Wayfinding and placemaking elements reflect the neighborhood's identity, adding life and color to the street.

> ON-STREET PARKING ON BOTH SIDES

PLACEMAKING & WAYFINDING ELEMENT ON UTILITY POLES

> CONVERT INTERSECTION TO 4-WAY STOP



Existing Conditions

MID-BLOCK BUMP-OUTS WITH STREET TREES

STREET TREES IN PLANTERS

STORMWATER BUMP-OUTS AT

かる

IMPROVED CROSSINGS WITH ADA-COMPLIANCE

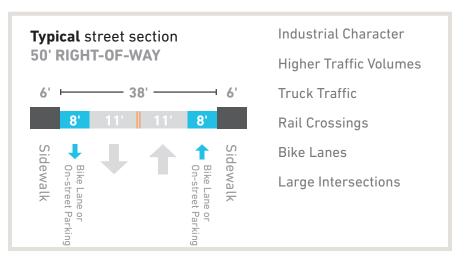
INDUSTRIAL GALLERY 15TH STREET TO 9TH STREET

The segment of West Kentucky Street between 15th Street and 9th Street is industrial in character, scale, and operation. Though the right-of-way space is consistent with the remainder of the corridor at 50 feet, the roadway and its intersections widen to accommodate truck traffic and movement, thus narrowing sidewalks.

As shown in the graphic to the right, the typical street section includes two-way travel lanes with on-street parking or bike lanes on each side. Buffered bike lanes are located between 9th Street and 12th Street, connecting to two-way bike lanes on 12th Street toward Russell and Portland.

This segment includes two at-grade rail crossings, one of which has nine rail tracks. This rail crossing was identified by the community in the public engagement process as hindering walkability and being unsafe to pedestrians, cyclists, and motorists.

The industrial businesses along the corridor generally include large building footprints surrounded by loading docks and surface parking. The building façades that front West Kentucky Street often lack any windows or decorative elements.



The vision outlined in the following pages activates and enhances the industrial segment of the corridor through art, placemaking, and a new "linear park" connection. These improvements include the following projects:

Interim Projects:

- Establish a public-private partnership to fund and maintain new public art.
- Using tactical urbanism elements, re-stripe West Kentucky Street between the railyard and 9th Street to test a widened pedestrian path and "linear park" connection.
- Test traffic-calming features at the 15th Street intersection, using painted bump-outs.
- Re-stripe the 9th Street intersection to shorten the pedestrian crossing distance along the north side. Increase walk time for pedestrian crossing.

Mid-term Projects:

- Install wayfinding and placemaking elements that reflect the industrial heritage of the area.
- Add a median with street trees to 9th Street's center turn lane.

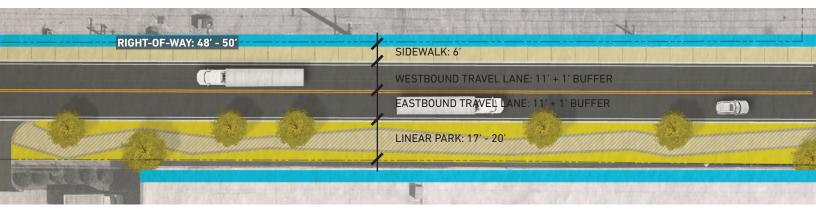
Long-term Projects:

- Improve the at-grade rail crossing near 15th Street with concrete pads around tracks, new asphalt, and sidewalks.
- Improve the at-grade rail crossing between 9th Street and 11th Street with concrete pads around tracks.
- Create a "linear park" connection between the railyard and 9th Street by adding street trees, wayfinding/placemaking elements, and improved pedestrian crossings.

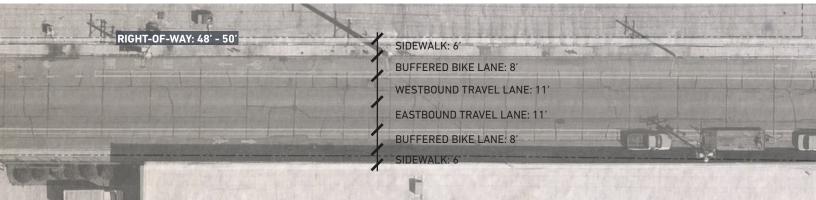
West Kentucky Street at S. 12th Street Looking East



Proposed Street Section



Existing Street Section





INDUSTRIAL GALLERY **EXISTING CONDITIONS** 15TH STREET TO 9TH STREET

The industrial segment of West Kentucky Street mostly lacks pervious surfaces, street trees, and pedestrian amenities beyond sidewalks. The corridor is fronted by large industrial buildings with blank façades, loading areas, and surface parking lots. The rail crossing near 15th Street acts as a physical and psychological barrier; residents and businesses identified poor roadway conditions and reported trains blocking the street.

BJK FLEXIBLE PACKAGING

West Kentucky Street

CONSOLIDATED GRAIN & BARGE PADUCAH & LOUISVILLE RAILWAY YARD

VG REED & SONS, INC.

Garland Avenue

BAT'ON

S. 12th Street

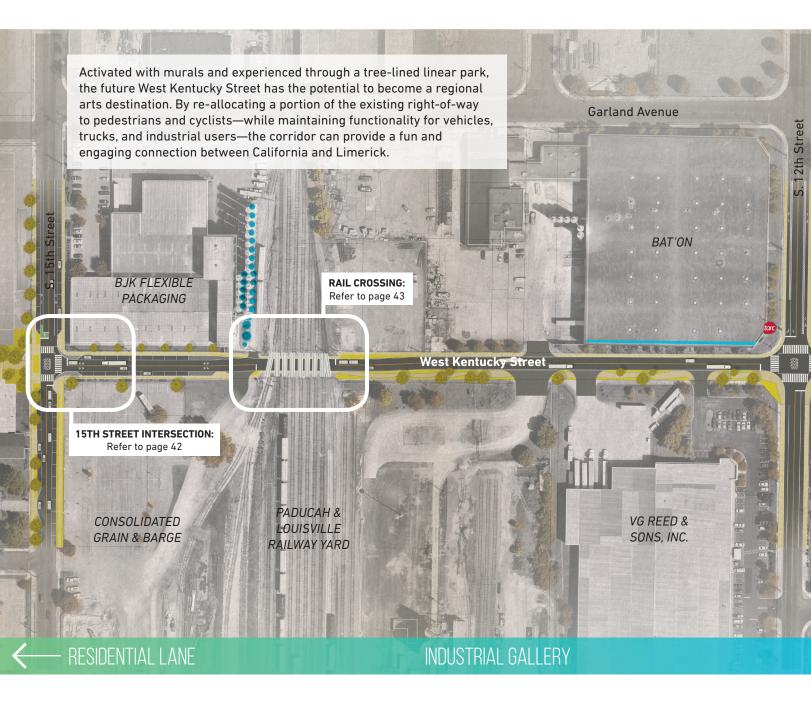
15th Street

S.

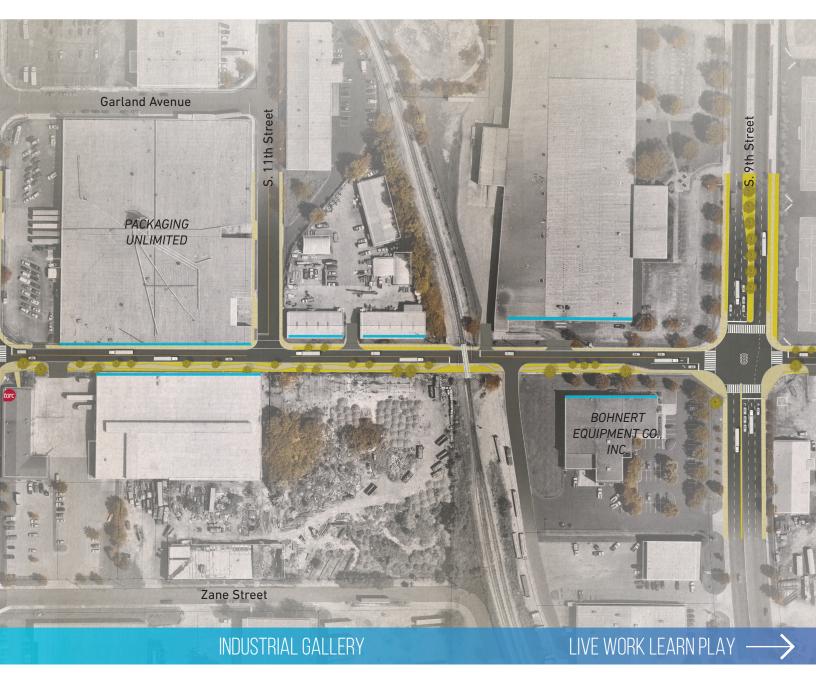




INDUSTRIAL GALLERY **VISION** 15TH STREET TO 9TH STREET

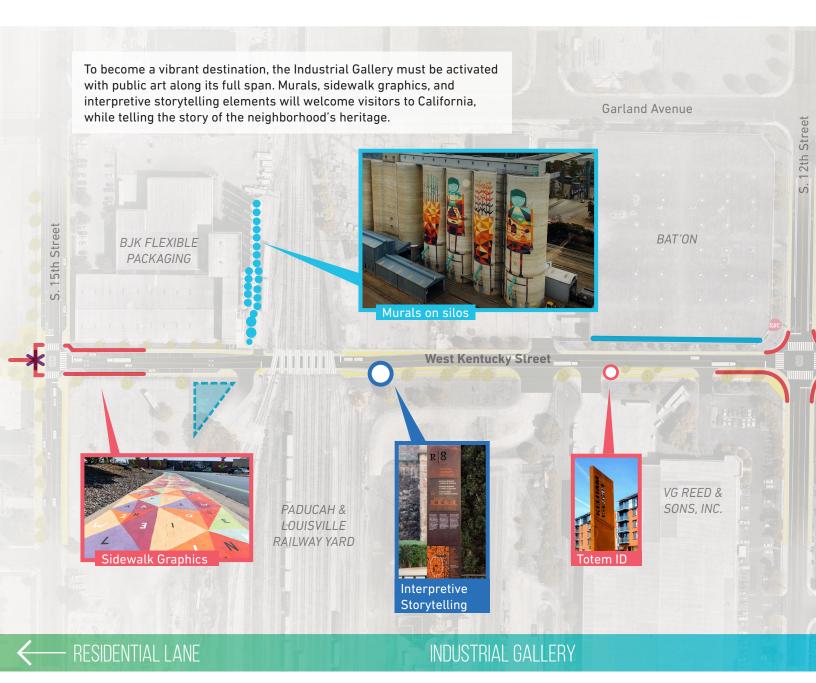


Mural (on private property)

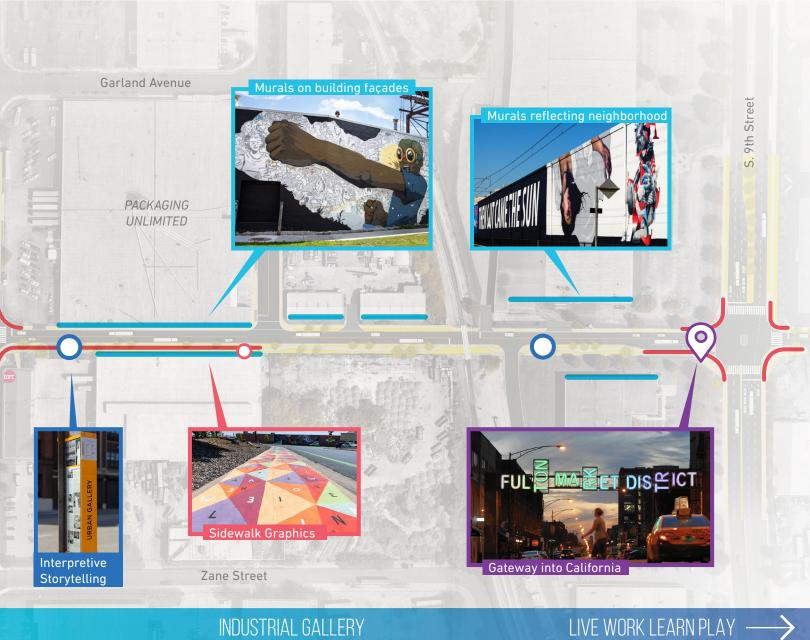




INDUSTRIAL GALLERY **PLACEMAKING & WAYFINDING** 15TH STREET TO 9TH STREET



- Mural (on private property)
- 0 Gateway Identification (Primary)
- * Gateway Identification (Secondary)
 - 0 Totem ID/Wayfinding
 - Sidewalk Graphics/Wayfinding
 - 83 Interactive Public Artwork
 - Interpretive Storytelling 0



INDUSTRIAL GALLERY

LIVE WORK LEARN PLAY

West Kentucky Street at S. 12th Street Looking East

The envisioned Industrial Gallery will be flanked by murals, activated by public art, and incorporate green infrastructure with lush landscaping. The new walk/bike path, which varies in width, meanders through a 17-to 20-foot wide "linear park" on the south side of the street. Developed as a partnership between California residents, the local arts community, and corridor businesses, new artwork should strive to reflect the history, identity, and spirit of the California neighborhood.

NATIVE GRASSES, STORMWATER INLETS, AND LANDSCAPING

PACKAGING UNLIMITED

NUBALS ON FAÇADES OF

PLACEMAKING ELEMENTS -

TEANWHILE IN THE GALLER



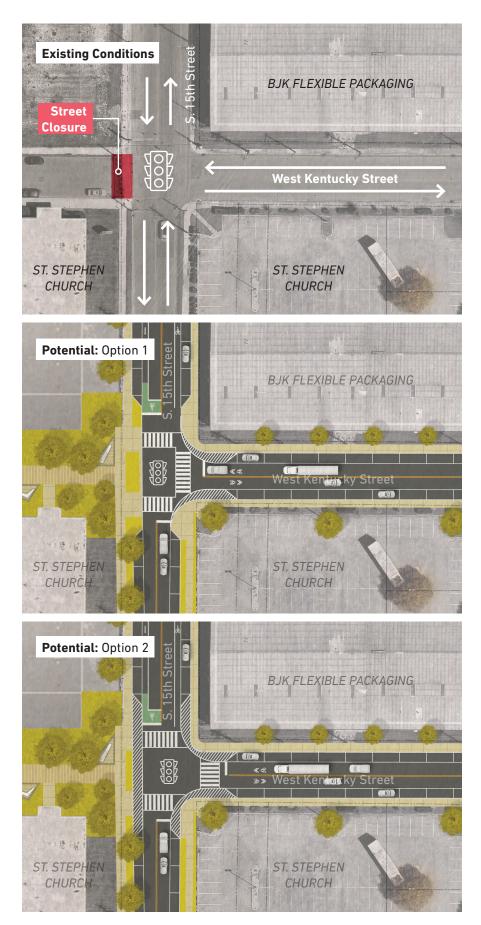
15TH STREET INTERSECTION

Currently, West Kentucky Street is closed to through-traffic on the west side of the signalized "T" intersection at 15th Street. The traffic signal provides a walk phase on each leg of the intersection, which accommodates high pedestrian volumes for St. Stephen Church.

Traffic volumes are relatively low, with an intersection volume of 5.800 vehicles per day (2003). The highest overall intersection volume (approximately 700 vehicles per hour) occurs during the evening peak hour, with most of the traffic traveling north/south on 15th Street. The large intersection footprint accommodates turning movements for trucks entering and exiting West Kentucky Street, but it also increases pedestrian exposure during street crossings. Lastly, twoway bike lanes exist on 15th Street between West Kentucky Street and Broadway.

The proposed solution for this intersection includes widening the sidewalk on the west side and striping bump-outs on the east side. AutoTURN analysis shows that trucks will need this striped bump-out space to complete their movements without traveling over the sidewalk. This will help delineate on-street parking, reduce pedestrian exposure, and calm traffic.

A less expensive, short-term solution would involve striping the bump-outs at all approaches. This would provide an opportunity to test the proposed improvements to ensure truck turning movements are still accommodated with the proposed geometry.



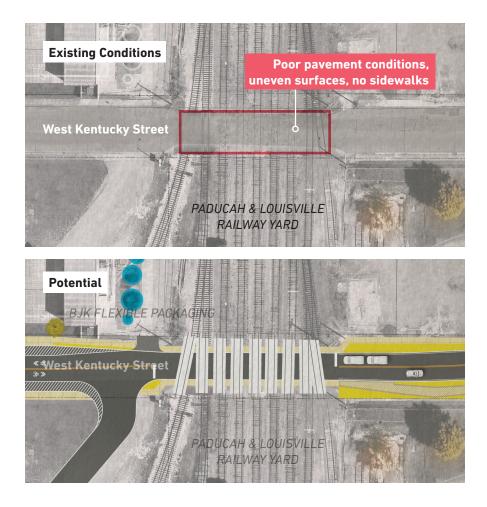
RAIL CROSSING

The rail crossing near 15th Street is a large, at-grade crossing with nine tracks. Users include Paducah & Louisville Railway, Consolidated Grain & Barge, and Louisville & Indiana Railroad. The most recent traffic counts for this section of West Kentucky Street show average daily traffic of 5,200 (2010) and 1,700 (2015) vehicles per day. Pedestrian counts are not available, but volumes are expected to increase with the growth of Simmons College, as students travel from housing west of 15th Street to the main campus at 7th Street. Pavement conditions within the crossings require excessively slow travel speeds for pedestrians and motorists. The poor rideability of the crossing is exacerbated as the elevation of the rails causes abrupt changes to the roadway profile over short distances.

Railcars are stored, sorted, loaded and unloaded in the adjacent railyard, resulting in slow moving operations (less than 5 mph) for trains as long as 15,000 feet. The process of assembling trains requires the train to move forward and in reverse at very slow speeds, often blocking the street in the process.

Several options were evaluated to address the issues at this crossing, including:

Grade Separation - Various scenarios of providing a pedestrian or vehicular grade-separated crossing were considered. These scenarios would come at a significant expense and face major obstacles. For example, an underpass would be subject to flooding, and an overpass would require a 22-foot clearance over the tracks. Constructing either option would have significant impacts to adjacent properties, require modifications to adjacent



intersections, and likely negatively impact usages as pedestrians can feel isolated and unsafe when using this type of facility.

Road Closure - A road closure and re-configuration between 12th Street and 15th Street was proposed by rail users and considered by the planning team. Due to the limited east-west connectivity in the area, as well as road closures at 13th Street and 15th Street, an additional road closure would further degrade the street grid. Closing this segment of West Kentucky Street would result in only two connections of 9th Street and 15th Street for nearly a mile: Broadway and Oak Street, which is prone to flooding. Moreover, a road closure would conflict with the California neighborhood's desire for strong street connectivity.

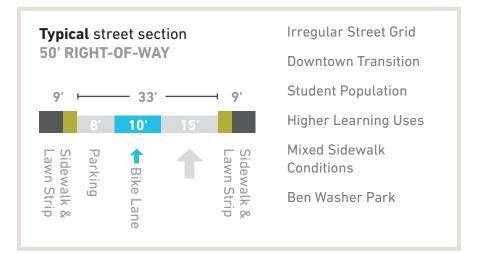
Surface Improvements - Improving the surface of the crossing will greatly enhance the safety of pedestrians, cyclists, and motorists while not impeding commercial activity or rail use. Due to the size and heavy use of the crossing, making asphalt-only repairs is merely a short-term fix. Upgrading the crossing with concrete is a more cost-efficient, long-term solution. Concrete improvements would extend the maintenance life of the crossing and would be completed at a fraction of the cost of grade separation. Concrete improvements would also allow for necessary adjustments to the elevation of each track to ensure a safe, level surface. Additional measures. such as vehicular and pedestrian gates or channelized islands, may be evaluated.

LIVE WORK LEARN PLAY 9TH STREET TO 4TH STREET

The segment of West Kentucky Street between 9th Street and 4th Street includes the neighborhood boundaries of California. Limerick and Old Louisville. This portion of the corridor features the most diverse mix of uses within the study area. These uses include the following: Sullivan & Cozart, planned athletic facilities for Spalding University, the Simmons College of Kentucky campus, College Court, Family & Children's Place, Ben Washer Park, Memorial Auditorium, and single-family residences.

Currently, West Kentucky Street changes to one-way eastbound travel at 8th Street toward Barret Avenue, funneling traffic from downtown to the Highlands area. As such, the typical street section for this segment includes a single travel lane with on-street parking and a buffered one-way bike lane on the northern side of the street. At intersections, this bike lane becomes a shared lane with vehicles turning left.

The feedback collected throughout the engagement suggested converting a portion of West Kentucky Street to two-way travel and celebrating the area's institutions through open space and streetscape improvements. Participants in the process also suggested finding solutions for improving the wide and confusing intersections at 7th Street and 5th Street.



The vision outlined in the following pages transforms this portion of the corridor into a campus-like parkway connecting institutions and neighborhoods. These improvements include the following projects:

Interim Projects:

- Convert the 6th Street and 8th Street intersections to four-way stops.
- Implement planned two-way conversions for 7th Street and 8th Street.
- Convert West Kentucky Street to two-way between 6th Street and 8th Street.
- Re-stripe the 7th Street intersection to test the proposed long-term reconfiguration, using temporary paint and bollards or delineators.

Mid-term Projects:

• Install wayfinding and placemaking elements that reflect the corridor's institutions.

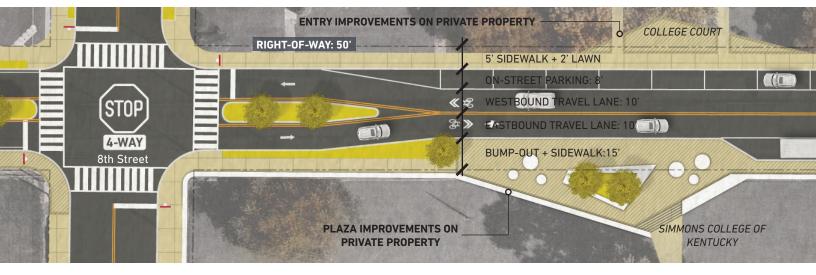
Long-term Projects:

- Partner with Simmons College and Spalding University to add medians at the 8th Street intersection.
- Partner with Simmons College to enhance the streetscape between 7th Street and 8th Street and add a bus drop-off area.
- Restore the historic street grid alignment of West Kentucky Street and 5th Street, converting portions of both streets to twoway travel.
- Implement full build-out of the 7th Street intersection realignment.

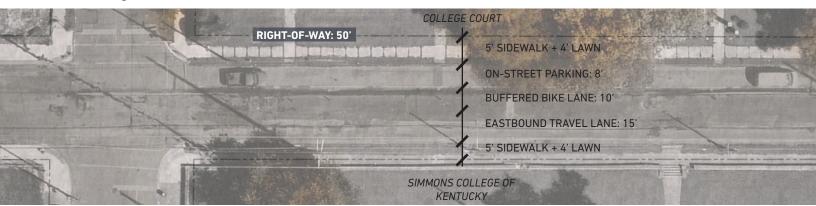
West Kentucky Street at S. 8th Street Looking East



Proposed Street Section

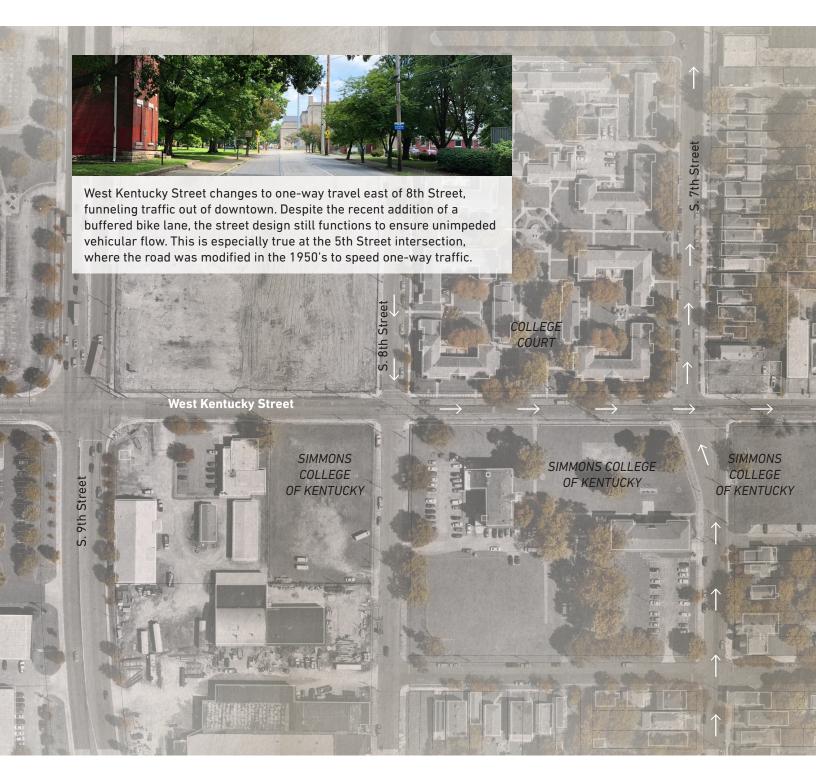


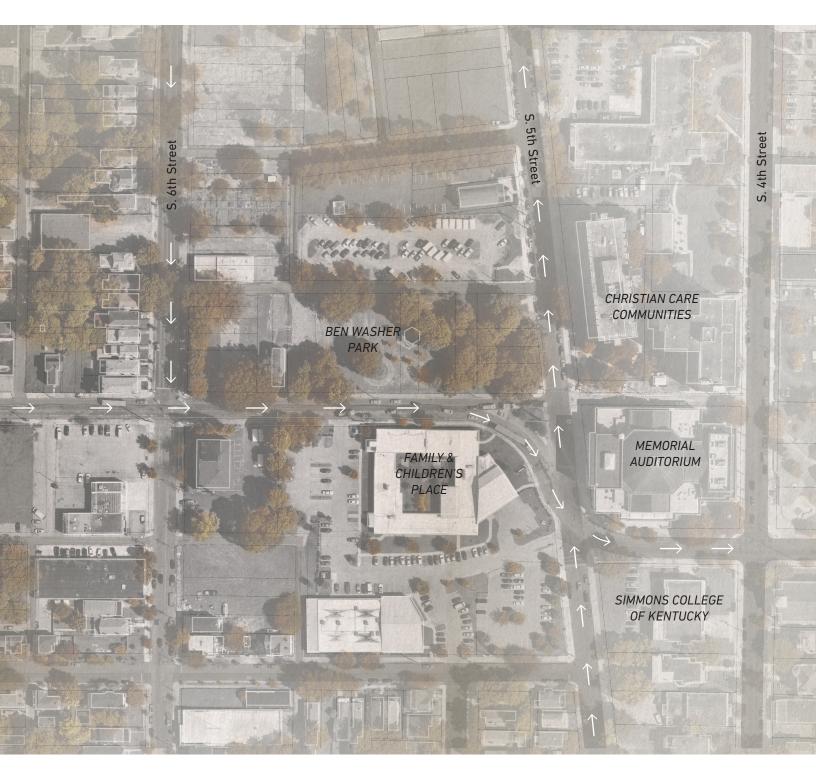
Existing Street Section





LIVE WORK LEARN PLAY **EXISTING CONDITIONS** 9TH STREET TO 4TH STREET





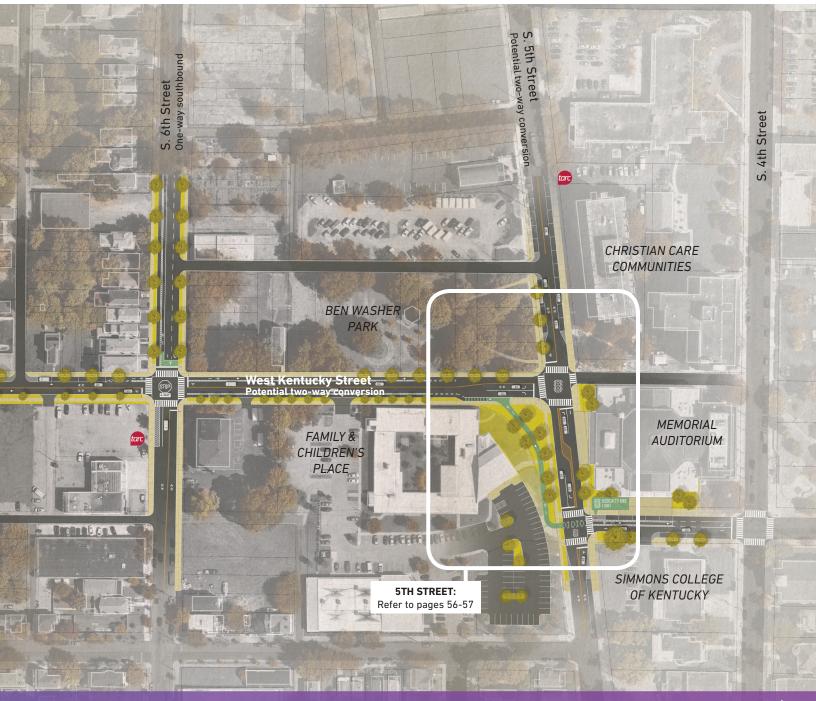


LIVE WORK LEARN PLAY **VISION** 9TH STREET TO 4TH STREET

conversion The two-way conversion of West Kentucky Street between 8th Street and 5th Street can help create a safer and more welcoming corridor. Shown in the graphic are various solutions that together will transform S. 7th Street Planned two-way c the corridor into a campus-like parkway. These solutions include adding gateway medians near 8th Street, creating an entry feature at Simmons College, right-sizing the 7th Street intersection, simplifying bicycle infrastructure between 6th Street and 4th Street, and restoring the historic grid alignment of the 5th Street intersection. COLLEGE COURT PLANNED SPALDING UNIVERSITY ATHLETIC FACILITIES **8TH STREET:** Refer to page 54 SIMMONS COLLEGE OF KENTUCKY SIMMONS COLLEGE OF KENTUCKY 7TH STREET: Refer to page 55

LIVE WORK LEARN PLAY

INDUSTRIAL GALLERY



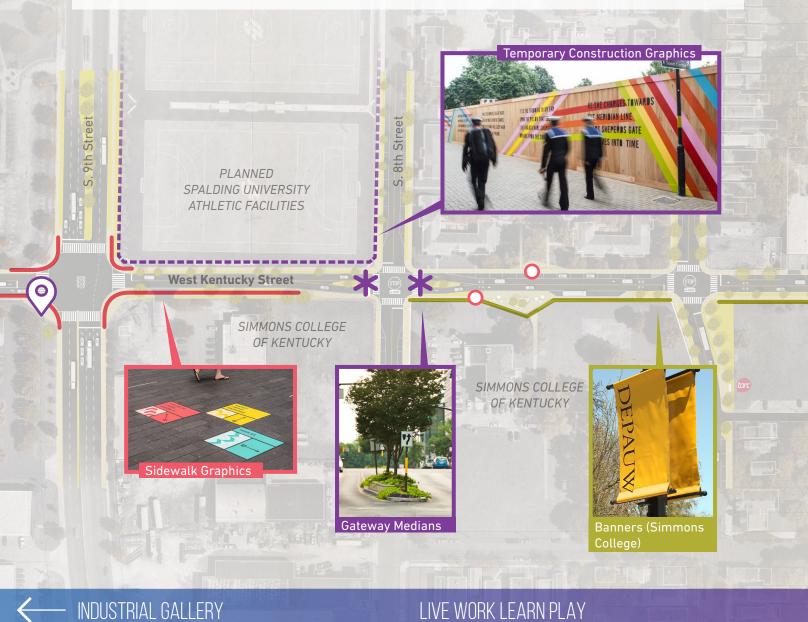
LIVE WORK LEARN PLAY

TO BAXTER AVENUE



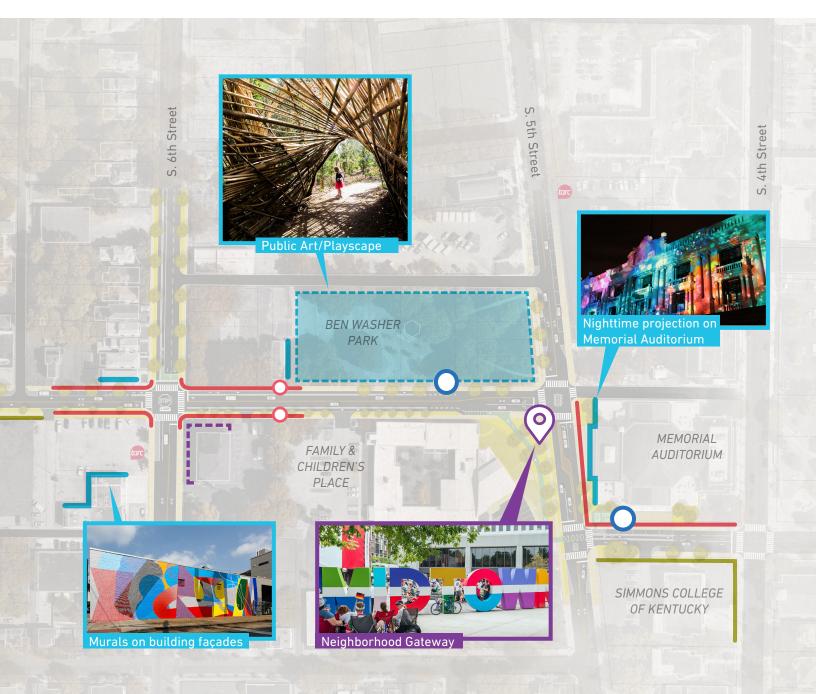
LIVE WORK LEARN PLAY **PLACEMAKING & WAYFINDING 9TH STREET TO 4TH STREET**

A common thread among the institutions along the corridor is their commitment to bringing people together. Inspired by these institutions, the placemaking strategy for this segment creates meaningful moments at these gathering areas, such as the Simmons College campus and Ben Washer Park, and connects them through sidewalk graphics, wayfinding elements, and gateway features.



LIVE WORK LEARN PLAY

- Mural or nighttime projection (on private property)
 - Gateway Identification (Primary)
 - Gateway Identification (Secondary)
 - Totem ID/Wayfinding O
 - Sidewalk Graphics/Wayfinding 🛛 🗕
 - Interactive Public Artwork
 - Temporary Construction Graphics
 - Interpretive Storytelling O
 - Banners 🗕



LIVE WORK LEARN PLAY

TO BAXTER AVENUE

West Kentucky Street at S. 8th Street Looking East

Currently a one-way street with on-street parking, a buffered bike lane, and a single travel lane, this stretch of West Kentucky Street was identified in the engagement process as having the opportunity to better showcase Simmons College and act as a gateway to the planned Spalding University athletic facilities. The graphic below shows a two-way conversion of the street that maintains on-street parking for College Court residents, adds medians near 8th Street, and narrows the road to create an entry plaza at Simmons College.

ON-STREET PARKING

ALONG COLLEGE COURT

MEDIANS AS GATEWAY ELEMENT

SIMMONS COLLEGE OF KENTUCKY ENTRY IMPROVEMENTS (PRIVATE)

LOADING FOR PRIVATE

CHARTER BUSES





8TH STREET INTERSECTION



The West Kentucky Street and 8th Street intersection is currently controlled by a traffic signal with both roadways transitioning from one-way to two-way streets at this intersection. This transition can be very confusing for drivers, as multiple signs and pavement markings are needed to direct motorists in the appropriate direction. Bike lanes are provided in the direction of travel on West Kentucky Street. 8th Street provides dedicated vehicular turn lanes on each approach.

Louisville Metro has plans to implement a two-way conversion on 8th Street, and the recommendations in this plan suggest West Kentucky Street be considered for two-way conversion from 6th Street to 8th Street. Implementation of both improvements would simplify operations at this intersection and reduce the need for dedicated turn lanes on the 8th Street approaches.

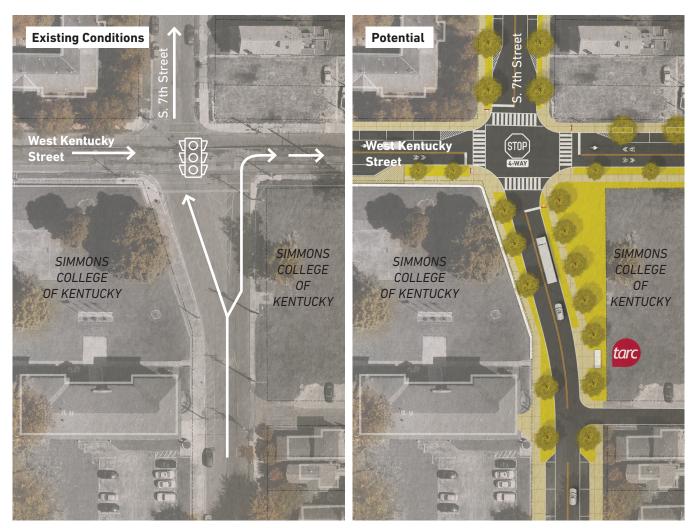
Recent traffic counts of 2,100 vehicles per day on 8th Street (2014) and 3,500 vehicles per day on West Kentucky Street (2015) suggest that the intersection has more than enough capacity, and the traffic signal should be replaced with a four-way stop. Converting this intersection to a four-way stop will improve pedestrian safety and utilize a more appropriate traffic control device, given the low traffic volumes.

Gateway medians are proposed on both sides of West Kentucky Street to announce the transition from the Industrial Gallery to the west into a residential and campuslike parkway. These medians also provide an opportunity to add landscaping elements and calm traffic.





7TH STREET INTERSECTION



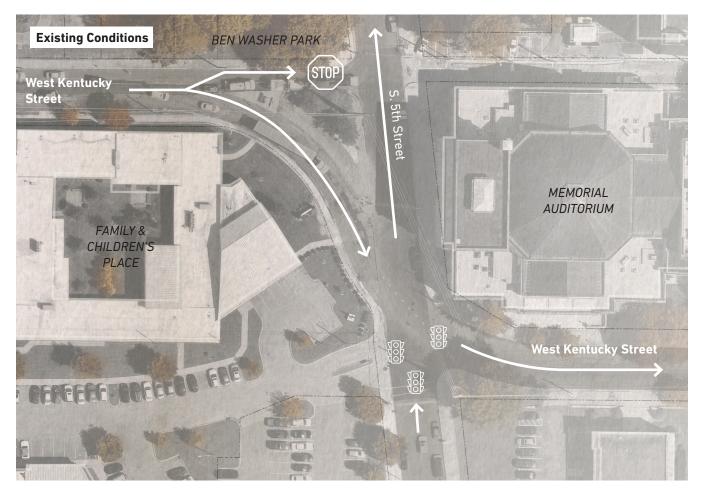
Currently, 7th Street intersects West Kentucky Street at a skew in order to align a shift occurring north and south of the intersection. A large channelized right turn on the south approach allows turning vehicles to bypass through-traffic that is stopped at the intersection. The intersection footprint on the south approach is excessively large for the types of vehicles that travel this corridor, which increases pedestrian exposure. Pedestrians cross nearly 80 feet of roadway when walking along the south side of West Kentucky Street.

Louisville Metro has plans to implement a two-way conversion on 7th Street, and the

recommendations in this plan suggest West Kentucky Street be considered for two-way conversion from 6th Street to 8th Street. Similar to the adjacent 8th Street intersection, recent traffic counts of 2,900 vehicles per day on 7th Street (2010) and 3,700 vehicles per day on West Kentucky Street (2018) suggest that the intersection has more than enough capacity, and the traffic signal should be replaced with a four-way stop. Converting this intersection to a four-way stop will improve pedestrian safety and utilize a more appropriate traffic control device, given the low traffic volumes.

Further improvements to pedestrian safety can be realized by reducing the intersection footprint on the south approach of South 7th Street. AutoTURN analysis shows that the intersection radii can be drastically reduced while still allowing a TARC bus perform turning movements. This modification would reduce the crossing distance from 80 feet to 45 feet, decreasing the time a pedestrian crosses the roadway by nine seconds. Reducing the intersection footprint also allows Louisville Metro and the adjacent property owner, Simmons College, to partner on improvements to recaptured space.

5TH STREET INTERSECTION



West Kentucky Street was modified in the 1950's at the 5th Street intersection to increase speed and efficiency for vehicular traffic. The result is a severely skewed and confusing intersection for pedestrians, cyclists, and motorists.

West Kentucky Street should be considered for a two-way conversion between 6th Street and 5th Street. Reconfiguring the intersection with 5th Street will provide an optimal transition from two-way traffic to one-way traffic east of 5th Street, while improving pedestrian safety. This conversion could also be coupled with a twoway conversion of 5th Street to further improve mobility.



Three alternatives were developed to simplify decisions for all modes of traffic at this intersection. The first two options restore the historic street grid, reducing the overall intersection footprint and increasing the green space east of Family & Children's Place. The third option redirects traffic flow through a roundabout.



The first alternative includes traffic signals at the north and south intersections with West Kentucky Street. The proximity of the intersections and periodic peaks in traffic volumes during the evening peak hour would require coordination to prevent queuing on West Kentucky Street. This alternative also includes an offstreet bike lane to allow cyclists to safely exit eastbound West Kentucky Street on the right side of the road and then re-enter traffic with a dedicated bike signal on the left side of the road to align with the existing bike lane east of 5th Street. This alternative also shows reconfiguration of the entrance to Family & Children's Place to create a "T" intersection and provide more parking.

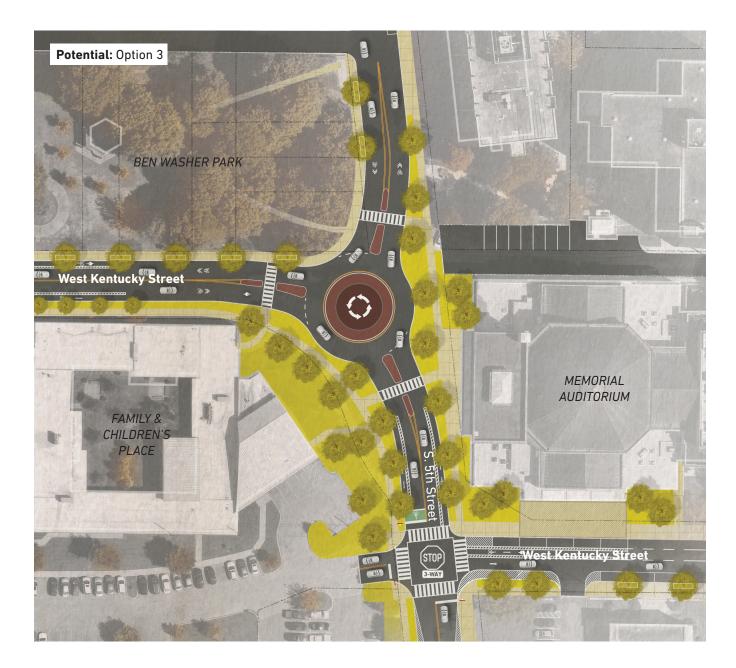


5TH STREET INTERSECTION (CONTINUED)



The second alternative removes the existing traffic signal and utilizes three-way stops at both intersections. Cyclists would not need the separated path to re-enter traffic and could instead use the onstreet bike lanes and a bike box at the southern intersection to utilize the existing bike lane east of 5th Street. This alternative reduces the size of the 5th Street entrance to Family & Children's Place and aligns it with West Kentucky Street for improved safety.





A third alternative considers the addition of a roundabout at the northern portion of the intersection, with realignments to the southern portion of the intersection. This option may require a mountable center island to accommodate bus and truck movement, lowering the speed limit to 25 miles per hour, potentially relocating two utility poles, and closing Baseball Alley. Implementation of one of these alternatives will require further traffic analysis to ensure there are no capacity concerns with the twoway conversion of 5th Street and West Kentucky Street. Moreover, intersection control will need to be further evaluated after traffic volumes are adjusted for two-way traffic.





PLAN OF ACTION

Implementing this corridor plan hinges on creating and strengthening partnerships with businesses, neighborhoods, and institutions along West Kentucky Street. Using interim solutions, these partners can test the ideas presented in the plan.

The West Kentucky Street Corridor Plan presents a bold and ambitious future for this vital corridor. Currently a fragmented east-west street, a future West Kentucky Street will connect neighborhoods, serve as a truck route for industrial businesses, and be a front door for prestigious institutions. As such, getting this vision implemented will require coordination and buy-in from these key stakeholders.

The graphic on the right outlines a general six-step implementation process, starting with a preliminary design and ending with a full build-out. This process follows a conventional approach to streetscape and roadway improvements, yet it allows and encourages interim solutions to immediately implement some of the plan's ideas.

A full implementation may be hindered by a lack of funding, the complexity of improving atgrade rail crossings, and lack of coordination of the interests and needs among industrial businesses, three neighborhoods, and various agencies. The following pages outline an implementation strategy tailored to West Kentucky Street. This strategy includes the following:

- A guide to testing ideas in a real-life setting through tactical urbanism methods and temporary traffic-calming measures.
- A project matrix that summarizes the plan's proposed improvements, identifying potential partners and setting feasible timelines.
- A list of potential next steps and funding sources for improving rail crossings.
- An order of magnitude cost to guide future decision-making and set funding priorities.

This strategy provides a toolkit approach for a successful implementation of the West Kentucky Street Corridor Plan, with the understanding that this document is just the beginning of this project.

IMPLEMENTATION STEPS

1 - Prepare streetscape 30% preliminary design

2 - Procure local, state, and federal funding to support construction of future roadway improvements

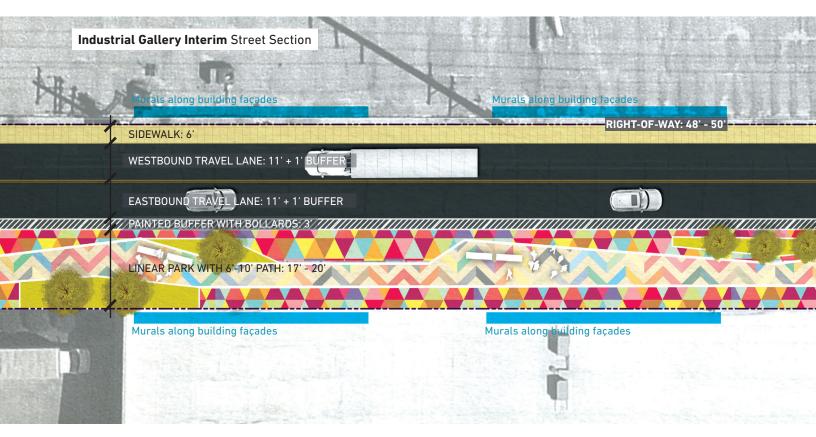
3 - Implement interim traffic calming measures and roadway configurations to test the feasibility of new traffic patterns and intersection redesigns

 4 - Partner with institutions, neighborhood representatives, and businesses to implement public art and wayfinding strategy

5 - Complete final design for public infrastructure improvements

6 - Initiate construction for public infrastructure improvements

INTERIM SOLUTIONS



Tactical urbanism is a common method to test ideas and concepts in an affordable and real-life setting. The vision set forth through this document is ambitious its implementation will require coordination across multiple city agencies and buy-in from neighborhoods and businesses along the corridor. Some of the master plan's concepts, such as narrowing portions of the road or right-sizing intersections, may benefit from temporary onsite installations that test their feasibility and functionality before investing in a long-term solution. The graphic above shows what a temporary installation of the Industrial Gallery's "linear park" may look like. The visualization assumes a pilot test of the road reconfiguration using bollards,

acrylic paint, AstroTurf, murals, small trees in planters, and temporary signage. These items are discussed with greater detail on the following page.

The installations of the temporary "linear park" can be approached as a community-building exercise with local artists and volunteers. A similar project was completed in Akron, Ohio, in the summer of 2018, when 88 volunteers implemented a painted surface to test a potential linear plaza that was proposed for the Northside District.



TACTICAL URBANISM KIT OF PARTS

The following materials are commonly used in tactical urbanism installations and may be useful in testing the ideas and street configurations presented in the master plan vision. The list below includes an order of magnitude cost for reference. Actual cost will vary with the project's intended lifespan and design.



High-Performance Bollard

Lifespan: 1 - 5 years

Unit Cost: \$80 - \$90 Description: Suitable for painted bump-outs or testing of roadway narrowing. Rebounds after being hit by vehicles.

Mural: Hand-painted

Description: Painted treatment of a blank building facade

with colorful, graphic art. A

way to engage local artists

neighborhood identity and create sense of place.

and residents, celebrate

Lifespan: 15 years

Cost: \$25/sq. ft



Temporary Bollard (Freestanding)

On-site Lifespan: Less than one month

Unit Cost: \$20 - \$35

Description: Suitable for pilot testing ideas for event-based tactical urbanism. Reusable after purchase.

Surface Paint (Acrylic)

Lifespan: 1 year Unit Cost: \$100/5-gallon container

Description: Suitable for painting on asphalt or concrete to create colorful and artistic surface treatments.

Mural: Vinyl

Lifespan: 5 - 7 years

Cost: \$2 - \$8/sq. ft + \$7,000 -\$8,000 installation

Description: Using a printed vinyl or adhesive surface material, this mural application can be used to adhere supergraphics or photography to building façades.



AstroTurf

On-site Lifespan: Less than one month

Unit Cost: \$20 - \$60 for 4 ft by 6 ft Artificial Grass Area Rug

Description: Suitable for a limited-engagement event. Movable carpets can be purchased individually and assembled on-site.







Walk [Your City] Signs

Lifespan: 1 year

Unit Cost: \$20/sign at walkyourcity.org

Description: Sold with installation materials and customizable online. Signs can be placed along existing utility poles and provide low-cost wayfinding.

Small "Temporary" Tree

On-site Lifespan: Less than one month

Unit Cost: \$50 - \$200

Description: Pilot test the impact of greenery through eventday trees. Cost will depend on species and planters.



PROJECT MATRIX

The following matrix summarizes the projects outlined in the Master Plan Vision section of this document by each of the three experience zones. The matrix includes a list of potential public and private partners for each recommendation, as well as a potential timeline. The project timeline is divided into three categories: **Interim Projects** may occur immediately following the completion of this plan.

Mid-term Projects may occur within the next 2-5 years.

Long-term Projects may require additional analysis and significant investment. Therefore, they are expected within a 5-10 year time frame.

LEGEND

KIPDA - Kentuckiana Regional Planning & Development Agency

LG&E - Louisville Gas & Electric

MSD - Metropolitan Sewer District

KYTC - Kentucky Transportation Cabinet



PROJECTS		AGENCIES &	TIMELINE		
		POTENTIAL PARTNERS	INTERIM (0-2 Years)	MID-TERM (2-5 Years)	LONG-TERM (5+ Years)
RES	IDENTIAL LANE: Dixie Highway to 15th Street				
R-1	Improve and repair minor pavement conditions, such as potholes.	Louisville Metro, MSD			
R-2	Add painted bump-outs at the Dixie Highway, Salem Avenue, 16th Street, and 17th Street intersections.	Louisville Metro			
R-3	Convert the 16th Street intersection to a four- way stop.	Louisville Metro			
R-4	Incorporate neighborhood identity through painted art at existing utility/light poles.	Louisville Metro, Commission on Public Art, California Neighborhood Groups, LG&E, Fund for the Arts			
R-5	Improve and repair sidewalks and street curbs.	Louisville Metro			
R-6	Add planters with street trees.	Louisville Metro			
R-7	Install wayfinding and placemaking elements.	Louisville Metro, Commission on Public Art, California Neighborhood Groups			
R-8	Install bump-outs with green infrastructure and ADA-compliant crossings at the Dixie Highway and 16th Street intersections.	Louisville Metro, MSD			
R-9	Install mid-block bump-outs with stormwater features and street trees.	Louisville Metro, MSD			



AGENCIES &

PROJECTS		AGENCIES &	IIMELINE		
		POTENTIAL PARTNERS	INTERIM (0-2 Years)	MID-TERM (2-5 Years)	LONG-TERM (5+ Years)
IND	USTRIAL GALLERY: 15th Street to 9th Street				
I-1	Establish a public-private partnership to fund and maintain new public art.	Louisville Metro, Commission on Public Art, California Neighborhood Groups, West Kentucky Street Businesses, Simmons College, Fund for the Arts			
I-2	Using tactical urbanism elements, re-stripe West Kentucky Street between the railyard and 9th Street to test a widened pedestrian path and "linear park" connection.	Louisville Metro, KIPDA, West Kentucky Street Businesses			
I-3	Test traffic-calming features to the 15th Street intersection, using painted bump-outs.	Louisville Metro, St. Stephen Church, West Kentucky Street Businesses			
1-4	Re-stripe the 9th Street intersection to shorten the pedestrian crossing distance along the north side. Increase walk time for pedestrian crossing.	Louisville Metro, KYTC, KIPDA			
I-5	Install wayfinding and placemaking elements that reflect the industrial heritage of the area.	Louisville Metro, Commission on Public Art, California Neighborhood Groups, West Kentucky Street Businesses			
I-6	Add a median with street trees to 9th Street's center turn lane.	Louisville Metro, KYTC, KIPDA			
I-7	Improve the at-grade rail crossing near 15th Street with concrete pads around tracks, new asphalt, and sidewalks.	Louisville Metro, KIPDA, Railroad Companies, Consolidated Grain & Barge			
I-8	Improve at-grade railroad crossing between 9th Street and 11th Street with concrete pads around tracks.	Louisville Metro, KIPDA, Railroad Companies, West Kentucky Street Businesses			
I-9	Create a "linear park" connection between the railyard and 9th Street by adding street trees, wayfinding/placemaking elements, and improved pedestrian crossings.	Louisville Metro, KYTC, KIPDA, MSD, California Neighborhood Groups, West Kentucky Street Businesses			

PROJECT MATRIX (CONTINUED)



PROJECTS		AGENCIES &	TIMELINE		
		POTENTIAL PARTNERS	INTERIM (0-2 Years)	MID-TERM (2-5 Years)	LONG-TERM (5+ Years)
LIVE	WORK LEARN PLAY: 9th Street to 4th Street				
L-1	Convert the 6th and 8th Street intersections to four-way stops.	Louisville Metro			
L-2	Implement planned two-way conversions for 7th Street and 8th Street.	Louisville Metro			
L-3	Convert West Kentucky Street to two-way between 6th Street and 8th Street.	Louisville Metro			
L-4	Re-stripe the 7th Street intersection to test the proposed long-term reconfiguration, using temporary paint and bollards or delineators.	Louisville Metro, Simmons College			
L-5	Install wayfinding and placemaking elements that reflect the corridor's institutions.	Louisville Metro, Commission on Public Art, Limerick Association for Neighborhood Development, Old Louisville Neighborhood Council (West Saint Catherine neighborhood)			
L-6	Partner with Simmons College and Spalding University to add medians at the 8th Street intersection.	Louisville Metro, Simmons College, Spalding University			
L-7	Partner with Simmons College to enhance the streetscape between 7th Street and 8th Street and add a bus drop-off area.	Louisville Metro, Simmons College, LG&E, MSD			
L-8	Restore the historic street grid alignment of West Kentucky Street and 5th Street, converting portions of both streets to two-way travel.	Louisville Metro, KIPDA, MSD, LG&E			
L-9	Implement full build-out of the 7th Street intersection realignment.	Louisville Metro, KIPDA, TARC			

RAIL CROSSING NEXT STEPS & POTENTIAL FUNDING

Implementing improvements to the rail crossing near 15th Street will require coordination among Louisville Metro, KYTC, Consolidated Grain & Barge, and Paducah & Louisville Railway. Preliminary estimates from railroad officials suggest replacing the deteriorated asphalt with concrete and adjusting the rail elevations will cost approximately \$1.5 million. Adding gates or other forms of positive protection would increase the cost. Some of the potential funding opportunities to implement these changes are explained below:

CRISI - The Federal Railroad Administration sponsors the Consolidated Rail Infrastructure and Safety Improvements (CRISI) program and appropriated \$318 million in grant funding for 2018. This funding will go toward capital improvement projects aimed at improving passenger and freight rail safety, efficiency, and reliability. This funding is highly competitive and often requires a 50% match from local governments or railroad companies to be considered. While this funding can be applied to improving surface crossings, it is typically used to implement much larger initiatives and is more focused on rail operations than roadway and pedestrian crossings.

KRCI - The Kentucky Rail Crossing Improvement (KRCI) Program is administered through KYTC's Division of Planning, and the matched funds are used to improve local and regional railroads. KYTC considers multiple factors when evaluating projects for this program, such as crash history; vehicle, train, and truck traffic; physical condition; project cost; and the federal railroad crossing score. The existing traffic and pedestrian



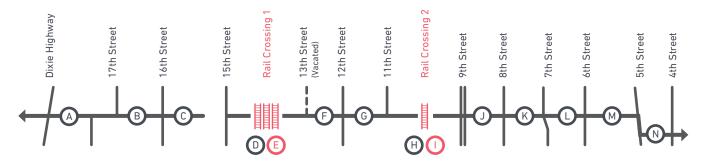
volumes at this crossing, combined with a lack of reported incidents, could result in a low score for this project.

TAP Grant - The federal Transportation Alternatives Program (TAP) in Kentucky uses funding set aside from the Surface Transportation Block Grant (STBG) funding program under the Fixing America's Surface Transportation (FAST) Act. This funding is typically applied to projects that include onor off-road pedestrian and bicycle facilities or other improvements to improve or build multi-modal corridors. Improvements to the rail crossing could be lumped into a larger West Kentucky Street initiative, thus qualifying for this program.

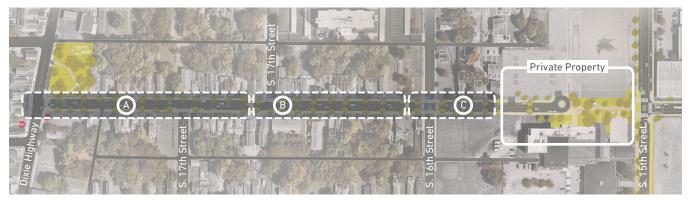
Railroad and Local Funds - Federal and state funding opportunities to improve at-grade rail crossings are very competitive, so improving and maintaining this crossing will likely require an investment from Louisville Metro, Consolidated Grain & Barge, and Paducah & Louisville Railway.

ORDER OF MAGNITUDE COST

The following probable costs are based on general planning and design parameters and represent order-ofmagnitude costs, in 2019 dollars, suitable for general planning purposes. These are not intended to represent total project costs and should not be reflected as such. Actual project costs must be based on a build-up of more detailed design and engineering information. As shown in the graphics below, the estimates divide the corridor into blockby-block segments that include improvements to the easternmost intersection of each segment. Improvements to rail crossings are estimated separately from these segments. Potential improvements to areas that fall in private property, such as the vacated right-of-way in front of St. Stephen Church and the entry plaza to Simmons College, are not included in this estimate. Other excluded improvements include signage and wayfinding, and utility work and relocation. The chart in the following page is a summary, with full estimates included in the appendix.



RESIDENTIAL LANE: DIXIE HIGHWAY TO 15TH STREET



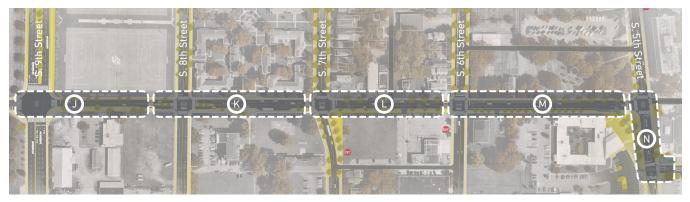
SEGMENT		INCLUDED IMPROVEMENTS	COST			
RES	RESIDENTIAL LANE: Dixie Highway to 15th Street					
A	Dixie Highway to 17th Street	Dixie Highway intersection improvements, new curbs/sidewalks, street repaving, street lights, and street trees.	\$358,100			
B	17th Street to 16th Street	17th Street intersection improvements, new curbs/sidewalks, street repaving, street lights, and street trees.	\$290,200			
C	16th Street to 15th Street (Excludes improvements to private property)	16th Street intersection improvements, new curbs/sidewalks, street repaving, street lights, and street trees.	\$156,600			

INDUSTRIAL GALLERY: 15TH STREET TO 9TH STREET

Paducah & Louisville Railway Yard	S. 9th Street

SEGMENT		INCLUDED IMPROVEMENTS	COST			
INDU	INDUSTRIAL GALLERY: 15th Street to 9th Street					
0	15th Street to 13th Street (excludes improvements to Rail Crossing 1)	15th Street intersection improvements (Option 1), new curbs/ sidewalks, street repaving, linear park (benches, street lights, trees).	\$586,400			
E	Rail Crossing 1	Concrete pads around rail tracks, asphalt between tracks.	\$1,500,000			
3	13th Street to 12th Street	New curbs/sidewalks, street repaving, linear park (benches, street lights, trees).	\$263,600			
6	12th Street to 11th Street	12th Street intersection improvements, new curbs/sidewalks, street repaving, linear park (benches, street lights, trees).	\$312,600			
H	11th Street to 9th Street (excludes improvements to Rail Crossing 2)	11th Street intersection improvements, new curbs/sidewalks, street repaving, linear park (benches, street lights, trees).	\$442,800			
0	Rail Crossing 2	Concrete pads around rail tracks, asphalt between tracks.	\$250,000			

LIVE WORK LEARN PLAY: 9TH STREET TO 4TH STREET



SEGMENT INCLUDED IMPROVEMENTS		COST		
LIVE WORK LEARN PLAY: 9th Street to 4th Street				
J	9th Street to 8th Street	9th Street intersection improvements, new curbs/sidewalks, street repaving, street lights, and street trees.	\$320,250	
K	8th Street to 7th Street	8th Street intersection improvements, new curbs/sidewalks, street repaving, medians, street lights, and street trees (Excludes entry plaza for Simmons College).	\$369,450	
0	7th Street to 6th Street	7th Street intersection improvements, new curbs/sidewalks, street repaving, street lights, and street trees.	\$672,000	
\bigotimes	6th Street to 5th Street	6th Street intersection improvements, new curbs/sidewalks, street repaving, street lights, and street trees.	\$332,800	
\bigcirc	5th Street to 4th Street	5th Street intersection reconfiguration (Option 1), new curbs/ sidewalks, street repaving, street lights, and street trees.	\$460,950	
Total Direct Cost			\$6,315,750	
	General Requirements (6%)			
General Contractor's Fee (4%)			\$267,788	
Design Contingency (10%)			\$710,140	
		TOTAL ESTIMATED COST	\$7,672,623	

This page left intentionally blank



SIMMON

S

Louisville, Kentucky 2019