

# Brent Spence Bridge Corridor Project: Kentucky Southern Section

Noise Barrier Informational Meeting

April 14, 2025





# Introductions

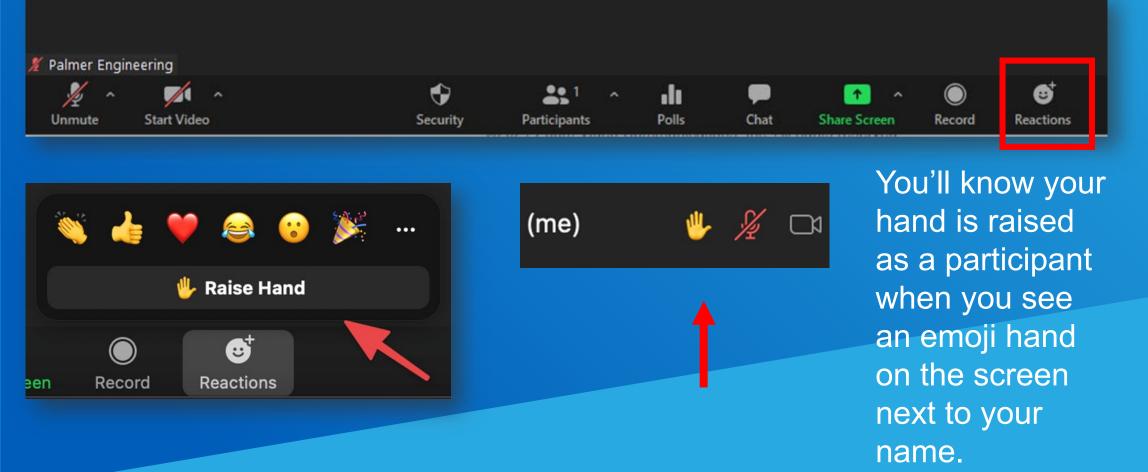
- Stacee Hans, KYTC Project Manager
- Gary Valentine, KYTC Project Advisor
- Scott Schurman, KYTC Environmental Project Manager
- Craig Craig, KYTC Noise Specialist
- Jeff Noble, AECOM, Kentucky Design Lead
- David Waldner, Palmer Engineering



# How to Participate in the Meeting

BRENT SPENCE

Raise your hand if you want to speak or ask questions on the video.



#### If You Are on a Mobile Device:

BRENT SPENCE



Join Audio





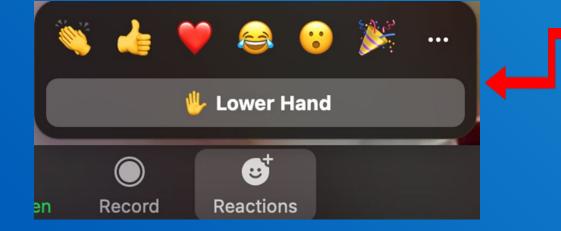
Start Video Share Content Participants



. . .

More

Raise hand can be found under 'more'



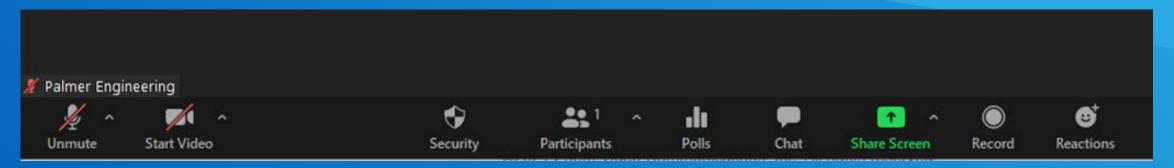
Lower your hand by clicking the same "Raise Hand" button on the screen as before, which now says "Lower Hand."

How to Raise Hand in Zoom Dial-In Calls:

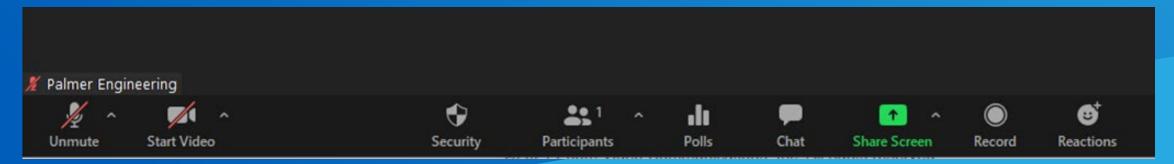
Once you join the meeting, dial \*9 on your phone's dial pad to raise your hand, and do the same to lower your hand.

# Using the chat function during the meeting:

BRENT SPENCE



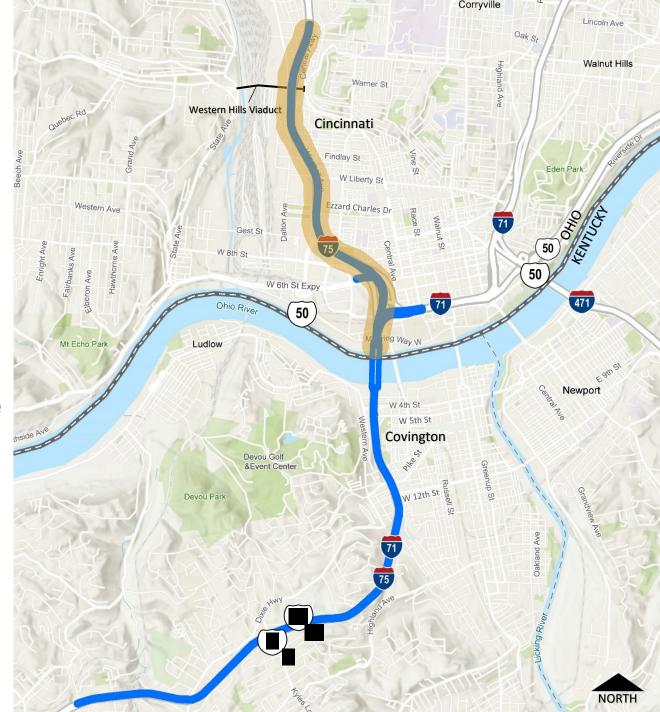
Submit your questions and comments using the chat feature. Click the chat button in your toolbar and type your question or comment in the provided box.



Use the microphone and camera buttons to control your video and audio sharing preferences.

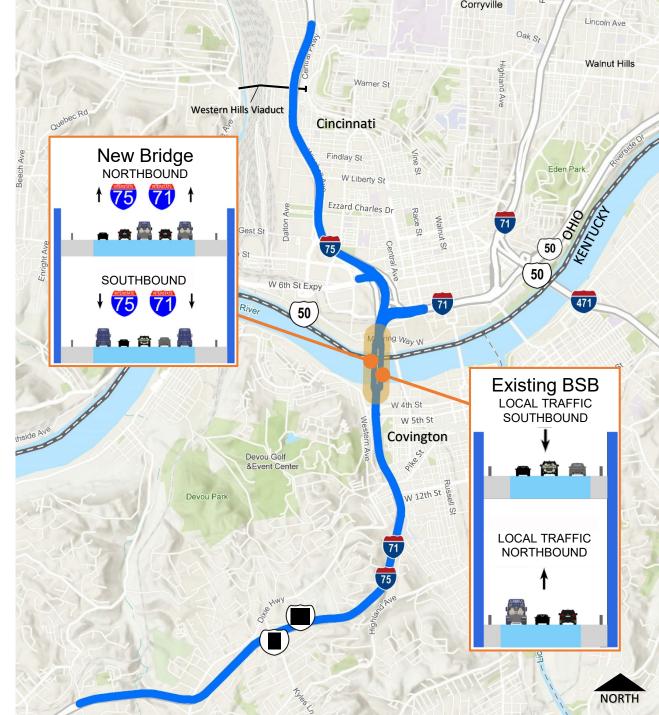
#### Project Description – Ohio

- Widen I-75
- Rebuild all overpass bridges and interchanges
- Build a collector-distributor system
- Tie into Mill Creek Expressway-Hopple Street Interchange project
- Tie into the Western Hills Viaduct project
- Add a northbound exit to Ezzard Charles Drive
- Connect to I-71 and US-50E



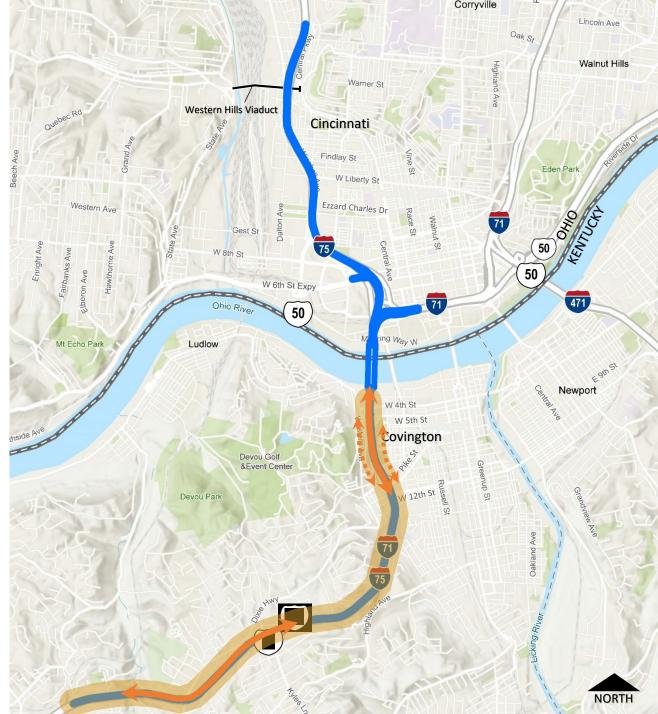
#### Project Description – Brent Spence Bridge

- New double-decker companion bridge
  - -5 lanes each deck
  - Carry through (interstate) traffic
- Rehabilitate and reconfigure existing bridge
  - Three lanes each deck
  - Increased inside/outside shoulders
  - Carry local traffic



#### Project Description – Kentucky

- Reconstruct and widen I-71/I-75
- Rebuild all overpass bridges and interchanges
- Extend frontage roads in Covington
- Construct a collector-distributor system from 12th Street north
- Construct collector-distributor systems between Dixie Highway and Kyles Lane



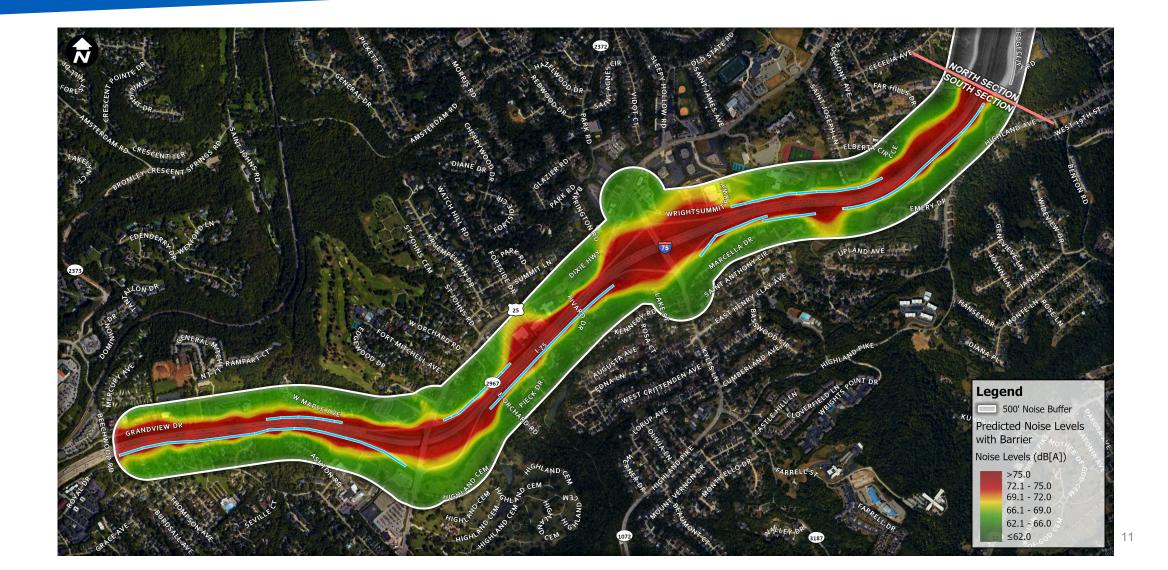
### Why Are We Here?



### Why Are We Here?



#### Why Are We Here?





### **Presentation Overview**

- Basics of Noise Analysis
- KYTC Noise Policy
- Results of Project Specific
  Noise Analysis
- Photos of Barrier Options
- Survey
- Questions and Answers





This meeting is for owners and residents of properties adjacent to I-71/I-75 who may benefit from construction of noise barriers when the road is widened. Which of the following describes your circumstances:

- 1. I both own property and live in the area
- 2. I own property but do not live in the area
- 3. I live in a rental property in the area



### What Is Noise?

- Unwanted Sound
- Tires
- Engines
- Exhaust



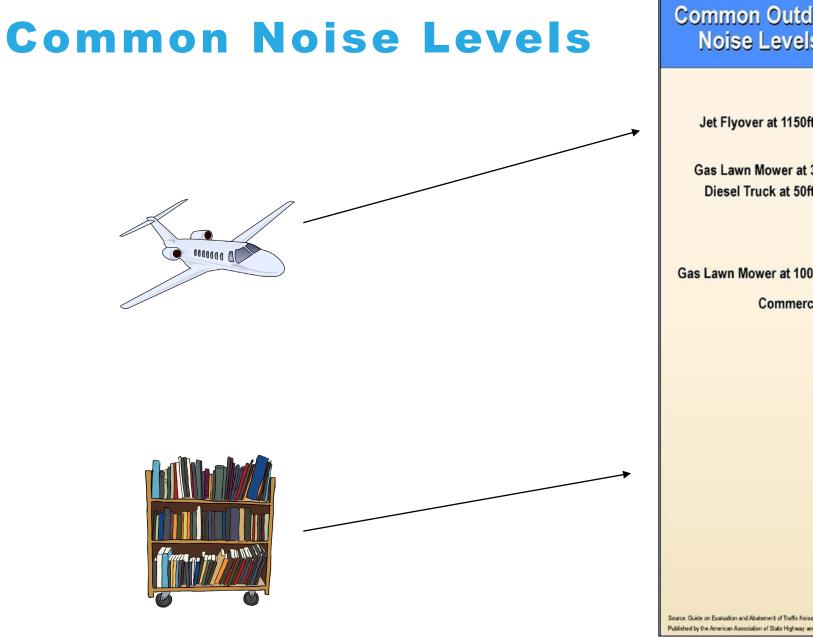


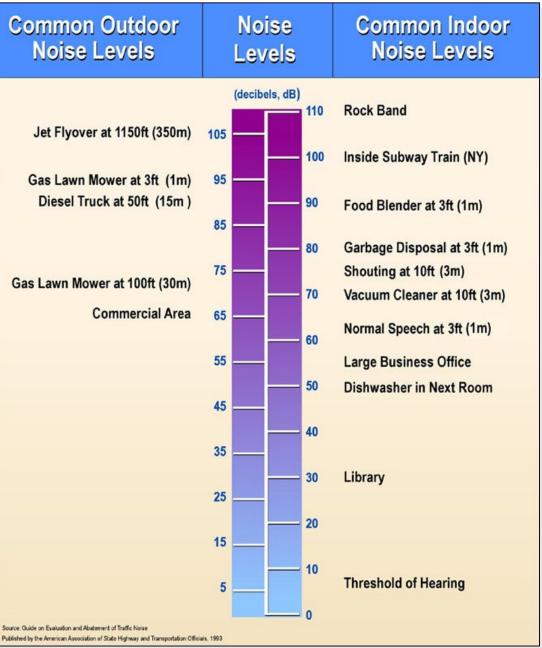
### **Noise Definitions**

- Decibels (dB) unit of noise measurement
- Sensitive Receptor ex. Homes, churches, etc.
- Benefited Receptor receives 5 db noise reduction
- TNM<sup>®</sup> Traffic Noise Model









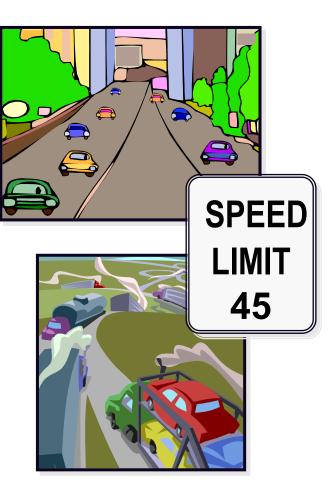
# **Sound Perception**

Change In Sound Level	Perception
3 dB	<b>Barely Perceptible</b>
<b>5 dB</b>	<b>Clearly Perceptible</b>
10 dB	Twice as Loud



# Level of Highway Noise Depends on Three Things:

- Volume of Traffic
- Speed of Traffic
- Number of Trucks





#### **How Traffic Volume Affects Noise**



#### 2000 vehicles per hour sound twice as loud (+10 dB) as





200 vehicles per hour



#### **How Speed Affects Traffic Noise**



#### Cars at 70 miles per hour sounds twice as loud (+10 dB) as









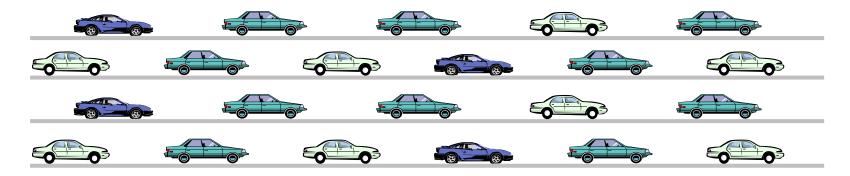
Cars at 35 miles per hour



#### **How Trucks Affect Traffic Noise**



#### One truck at 55 miles per hour sounds as loud as



#### about 20 cars at 55 miles per hour





# Which best describes the Interstate traffic noise outside your residence or building?

- 1. Not bad
- 2. Somewhat disruptive
- 3. Very disruptive





# **Questions?**

# **Noise Impact Identification**

• FHWA Traffic Noise Model

 Evaluate No Build and Build





### What Is a Noise Impact?

Land Use	Noise Level
Residential	67 dBA
Schools, Parks, Institutions	67 dBA
Restaurants & Offices	72 dBA

Source: Federal Highway Administration

Increase dBA	Description
10+	Substantial Increase



# **KYTC Noise Policy**

#### If Impacts Are Predicted, Then

- Avoid Change Line or Grade
- Minimize Restrict Trucks or Lower Speed
- Abate Earth Berms or Noise Walls
- Evaluate Feasibility and Reasonableness
  - Sight Distance; Entrances
  - Cost per Benefited Receptor
  - Desires of Benefited Receptors



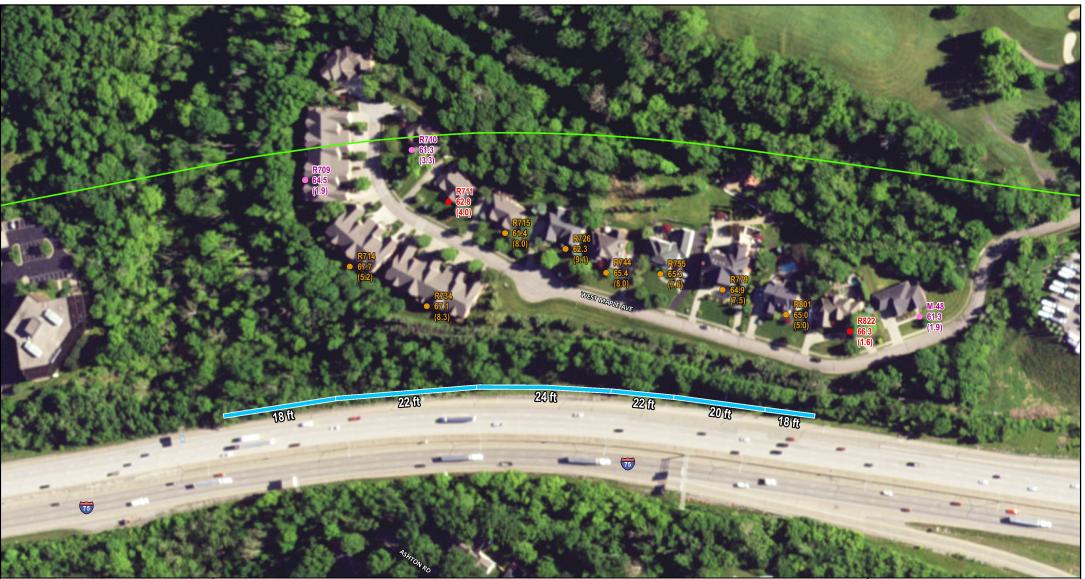


# **Noise Analysis Results**

#### **Barrier B17**







500' Noise Buffer (Southern Study Area) Fort Mitchell

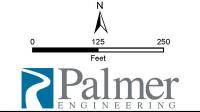


Analyzed Noise Barrier

Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Concept I-W Barrier B17A (18-24 ft) Exhibit 5





Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

#### **Barrier B18**











500' Noise Buffer (Southern Study Area)

Analyzed Noise Barrier

Benefitted

Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft) Exhibit 7A





Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





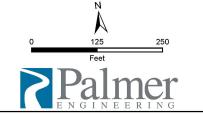


- Impacted, Not Benefitted
- Benefitted
  500' Noise Buffer (Southern Study Area)
  Analyzed Noise Barrier

Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft) Exhibit 7B





Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet



ent gy Wy BAPLE AVE 12 70 Fort Mitchell



Impacted, Not Benefitted
 Benefitted

500' Noise Buffer (Southern Study Area) Analyzed Noise Barrier Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft) Exhibit 7C

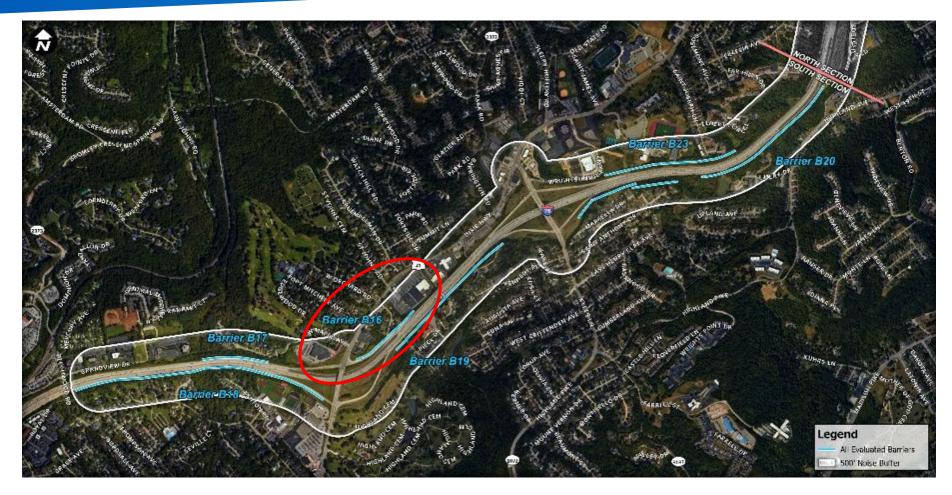




Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

33

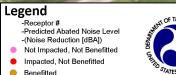
#### **Barrier B16**







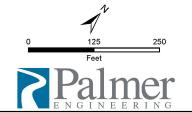
Benefitted 500' Noise Buffer (Southern Study Area) Analyzed Noise Barrier



Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Concept I-W Barrier B16B (12-22 ft) Exhibit 4





#### **Barrier B19**







Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet



Legend -Receptor # -Predicted Abated Noise Level -(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
  Impacted, Not Benefitted
- Benefitted
  500' Noise Buffer (Southern Study Area)
  Analyzed Noise Barrier

Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

> Concept I-W Barrier B19 (20 ft) Exhibit 8B





Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

#### **Barrier B20/NSA D**







STATES OF P Exhibit 9A

Benefitted

500' Noise Buffer (Southern Study Area) Analyzed Noise Barrier





Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet







500' Noise Buffer (Southern Study Area) Analyzed Noise Barrier

STATES OF AM

Impacted, Not Benefitted

Benefitted

Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Concept I-W Barrier B20 / NSA D (6 to 24 ft) Exhibit 9B



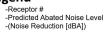


Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

41







Analyzed Noise Barrier

Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

STATES OF P

Concept I-W Barrier B20 / NSA D (6 to 24 ft) Exhibit 9C





Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

42

#### **Barrier B23**











Benefitted

500' Noise Buffer (Southern Study Area) Analyzed Noise Barrier

Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Concept I-W Barrier B23 (18-22 ft) Exhibit 10A





Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

44



Impacted, Not Benefitted Concept I-W Barrier B23 (18-22 ft) Exhibit 10B 500' Noise Buffer (Southern Study Area) Analyzed Noise Barrier

Not Impacted, Not Benefitted

Benefitted



TRANSPORTATION CABINET

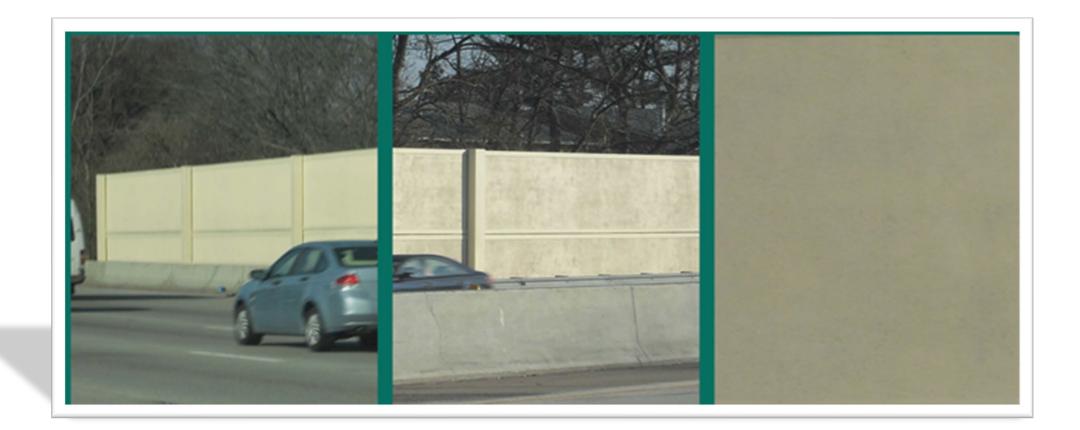


Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet



# **Questions?**

## Noise Wall Finish: Smooth Finish





#### **Noise Wall Finish: Cut Stone Finish**





## **Voting Process**

- Survey instructions mailed to Owners and Residents
- Survey accessible at registration page (brentspencebridge.com/south)
- Owner and Resident may each cast a vote
- Survey questions:
  - **Construct barriers (Y/N)** 0
  - Finish and texture (Smooth or Cut Stone) 0
- Survey results must be submitted by May 5, 2025







**Brent Spence Bridge Corridor Project** Kenton County, KY

On-Line Noise Barrier Meeting - Kentucky Southern Section April 14, 2025, 7:00 - 8:30 pm

#### Registration

Welcome to the Registration Page for the Noise Barrier Meeting - Southern Section for the Brent Spence Bridge Corridor Project. The project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety-related issues as a result of inadequate capacity to accommodate current traffic demand.

The environmental effects of the project, including potential traffic noise impacts to adjacent properties, have been evaluated. Maps showing the location and heights of proposed evaluated noise barriers are available at the link below. In accordance with the KYTC Noise Analysis and Abatement Policy and as a commitment in the 2024 Revised Supplemental Environmental Analysis, the opinions of owners and residents of properties that would benefit from proposed

noise and noise constructed as	Survey Ballot	uld be
A meeting to p Discussion/Qu the project and	owner, are being solicited. One ballot is available for the property owner and a second ballot is available for the current resident. If the property owner also resides at the property, that vote will be counted twice.	ed by a s about
Presumably, yo are being invite and instruction	provided on your letter inviting you to join the meeting.	ceptors I <b>terials</b> Was
	Register for Meeting - April 14, 2025	Wus
	Vote Now	
	Noise Barrier Location Maps	
	If you have any questions or problems registering or voting, please contact David Waldner at (859)744-1218 or dwaldner@palmernet.com.	



### **Project Contact**

 If you need assistance with your ballot or its submittal, you may contact:

David Waldner, Palmer Engineering <u>dwaldner@palmernet.com</u> (859) 744-1218





