Noise Meeting

December 13, 2023

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INDIANA DEPARTMENT OF TRANSPORTATION
INDOT

PRESENTERS

Brandon Miller

Principal Environmental Planner, Parsons

Mindy Peterson

Public Involvement Director, Parsons

John LaBlonde

Project Manager, Parsons

AGENDA TOPICS

Noise Analysis

Project Overview

Anticipated Improvements

Next Steps

NOISE ANALYSIS

NOISE POLICY

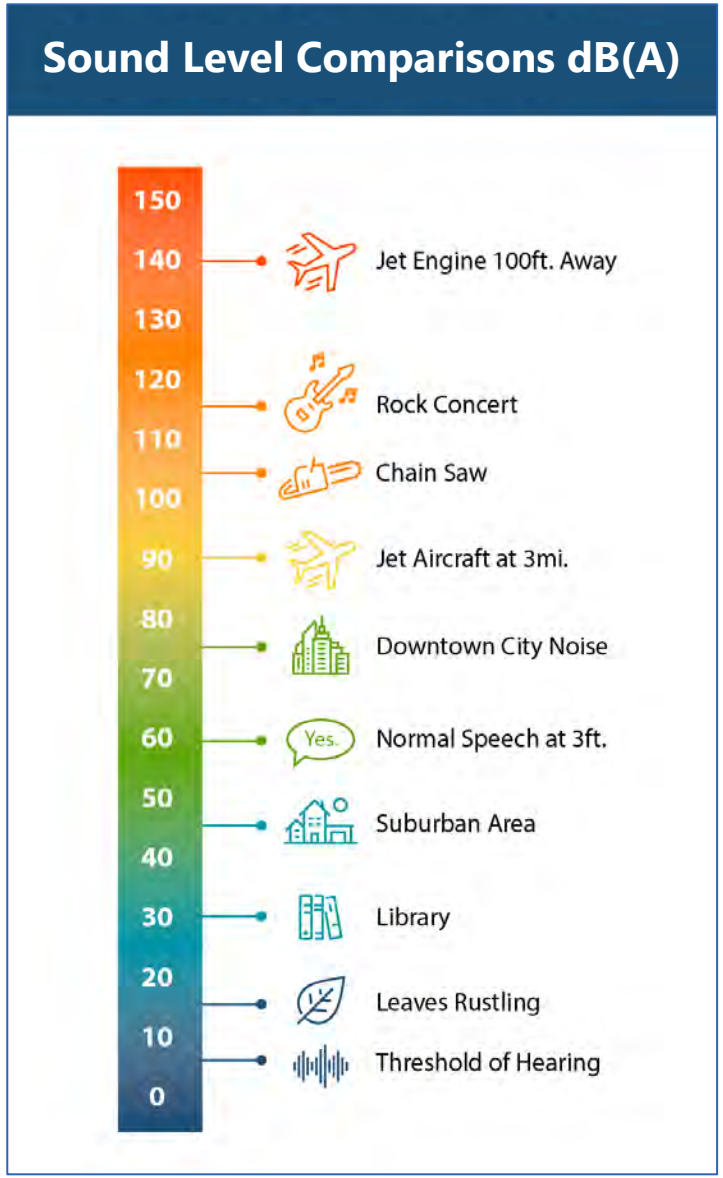
- **Federal Highway Act of 1970**
  - Mandated Federal Highway Administration (FHWA) to develop standards for traffic noise. Regulations are found in 23 CFR 772.
- **INDOT Traffic Noise Analysis Procedure**
  - States are required to develop and implement noise policy based on 23 CFR 772 standards. FHWA must review and approve state policies.
  - Noise analysis is required for all Type I highway projects that require FHWA approval

PURPOSE AND DEFINITIONS

- **Noise Policy Purpose**
  - INDOT's noise policy gives benefited receptors an opportunity to have a say in the construction of noise walls.
- **Impacted Receptor:** Property where predicted noise levels approach or exceed the noise abatement criteria (NAC), or substantially exceed the existing noise level.
- **Benefited Receptor:** Property that receives a minimum 5 decibel (dB(A)) reduction in future noise levels with noise mitigation.

NOISE BASICS

- **Noise** is unwanted sound
- **Sound** is a pressure fluctuation caused by vibration (source)
  - Travels through a medium such as air (path)
  - Capable of causing response in human ear & brain (receiver)
  - Sound levels are measured in decibels (dB(A))



NOISE BASICS

Change in Sound Level	Perception
3 decibels	Barely Perceptible
5 decibels	Clearly Perceptible
10 decibels	Twice as Loud

NOISE BASICS

- 2,000 vehicles per hour sound twice as loud (+10 dB(A)) as 200 vehicles per hour.
- Traffic at 65mph sounds twice as loud (+10 dB(A)) as traffic at 30 mph.
- One truck at 55 mph sounds as loud as 28 cars at 55 mph.

NOISE ANALYSIS PROCESS

- **Areas of frequent outdoor use** are identified and measured.
  - Front or backyards of residences, balconies or patios of apartments, outdoor seating at commercial properties, recreational areas
- **Sound levels** are measured in decibels, or dB(A).
- **Noise modeling software** analyzes existing and projected traffic volumes.
- **Projected noise levels** are based on 2045 traffic forecasts and noise impacts.
- **Noise impacts** occur when estimates approach or exceed 67 dB(A) or when estimates exceed the existing sound level by 15+ dB(A).

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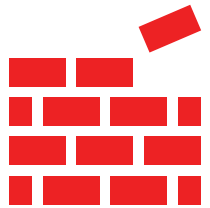
NOISE ANALYSIS PROCESS

FHWA Traffic Noise Model (TNM) 2.5

- 3D modeling software uses to analyze existing and projected traffic volumes & speeds
- Buildings, roads, pavement, terrain, grass, and receiver locations included in model
- Generates existing and predicted future noise levels
- Identifies noise impacts
- Evaluates noise barrier effectiveness



NOISE BARRIER EVALUATION

Noise barriers must be **feasible** and **reasonable**.

FEASIBLE

- Acoustic Feasibility: 5 dB(A) reduction at a majority of impacted receptors
- Engineering Feasibility: Considers environmental, drainage, safety and other issues to identify best location for a barrier

REASONABLE

- Barriers offer 7+ dB(A) reduction for the majority of directly adjacent receptors.
- Required barrier area (ft^2) per benefited receptor must be less than or equal allowable barrier area.

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NOISE BARRIER EVALUATION

Square Footage per Benefited Receptor	Results
0-1,000 ft^2	Reasonable
*1,001+ ft^2	NOT Reasonable

*1,250 ft^2 if majority of homes built before initial roadway construction

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YOUR FEEDBACK MATTERS

- Benefited property owners and residents are surveyed to determine if they support a noise barrier.
- If a response rate of 50%+ is not achieved, a second survey is mailed to those who did not respond.
- FHWA and INDOT review survey responses and determine next steps.
- Each barrier is analyzed separately.

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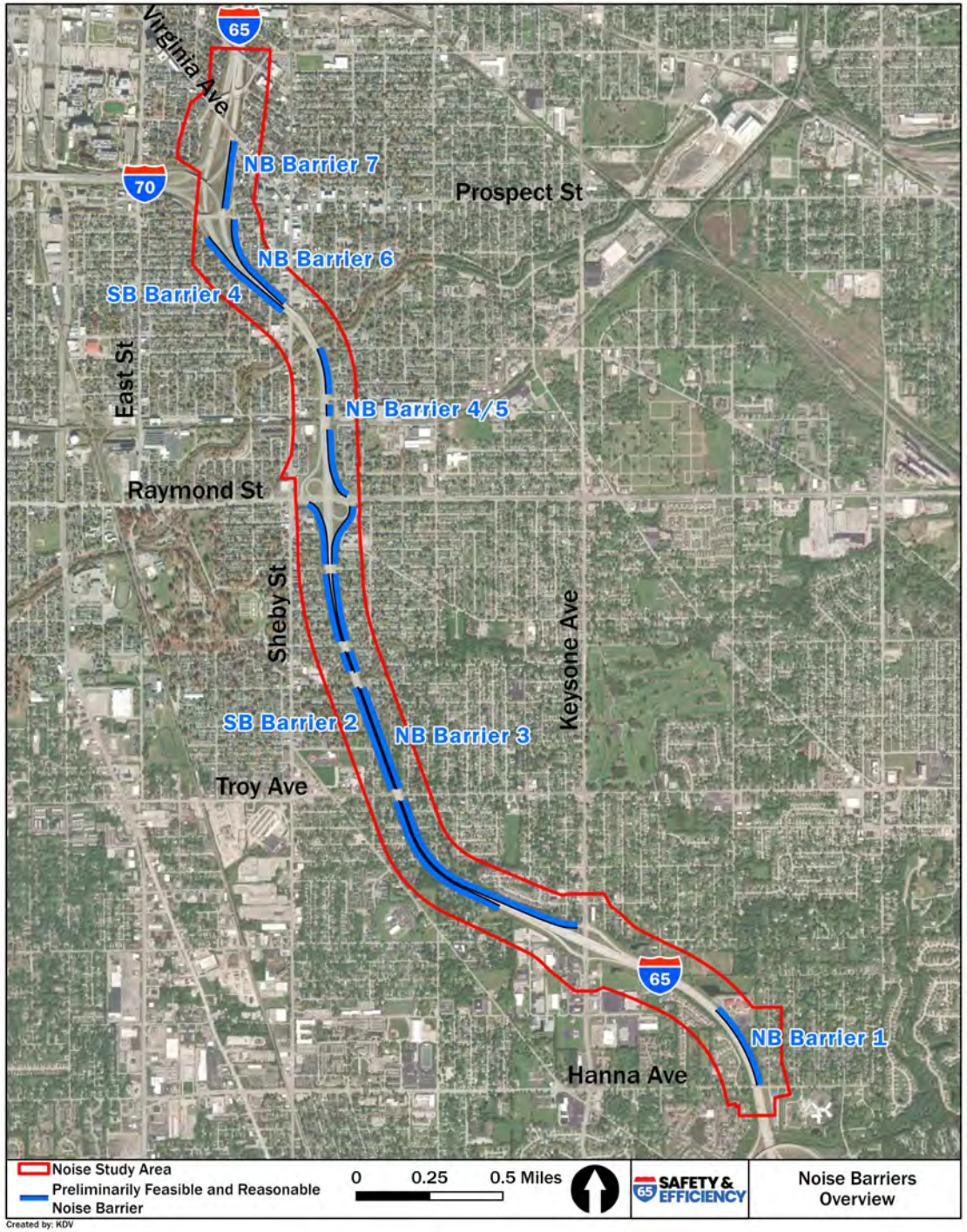
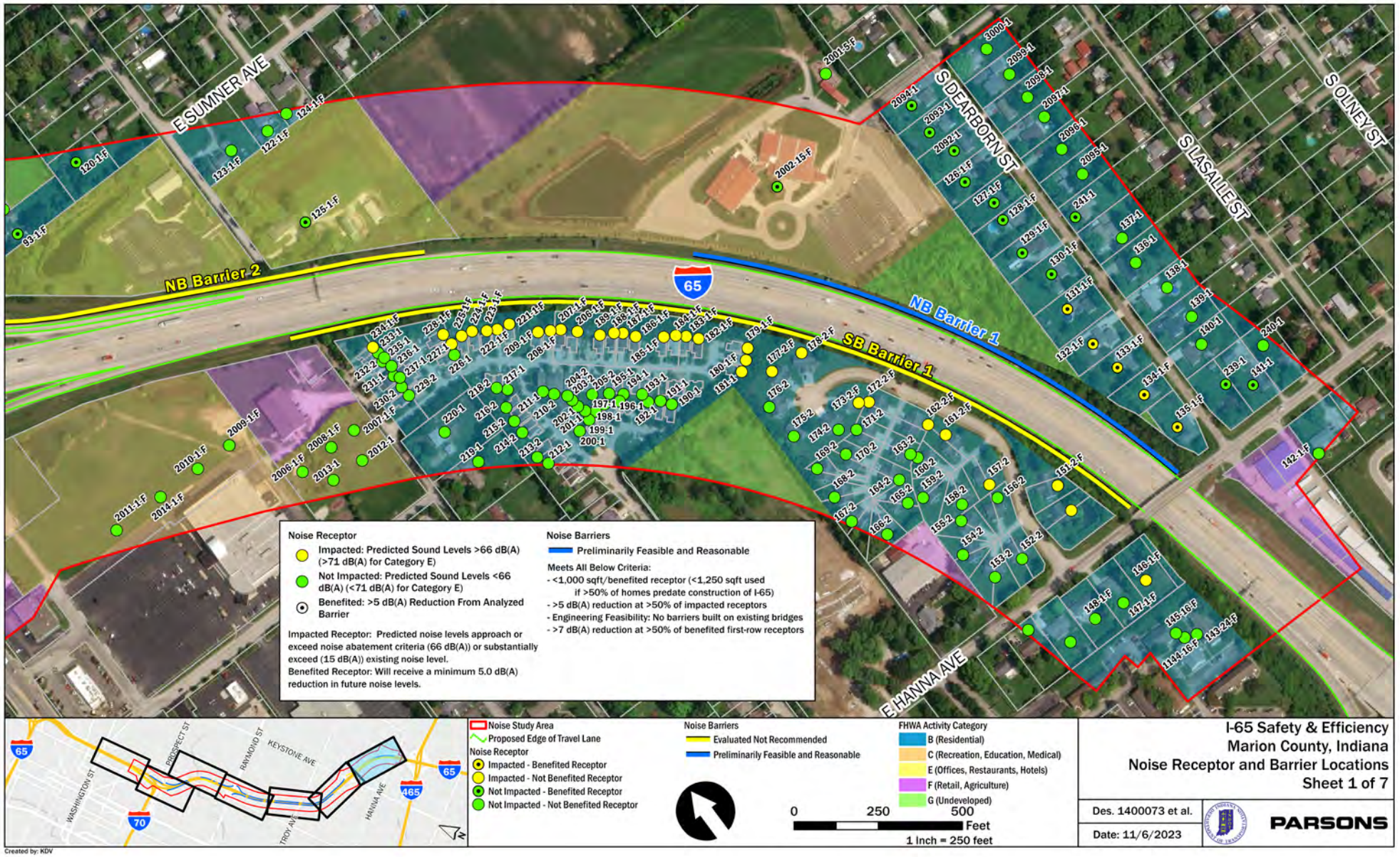
RECOMMENDED BARRIERS

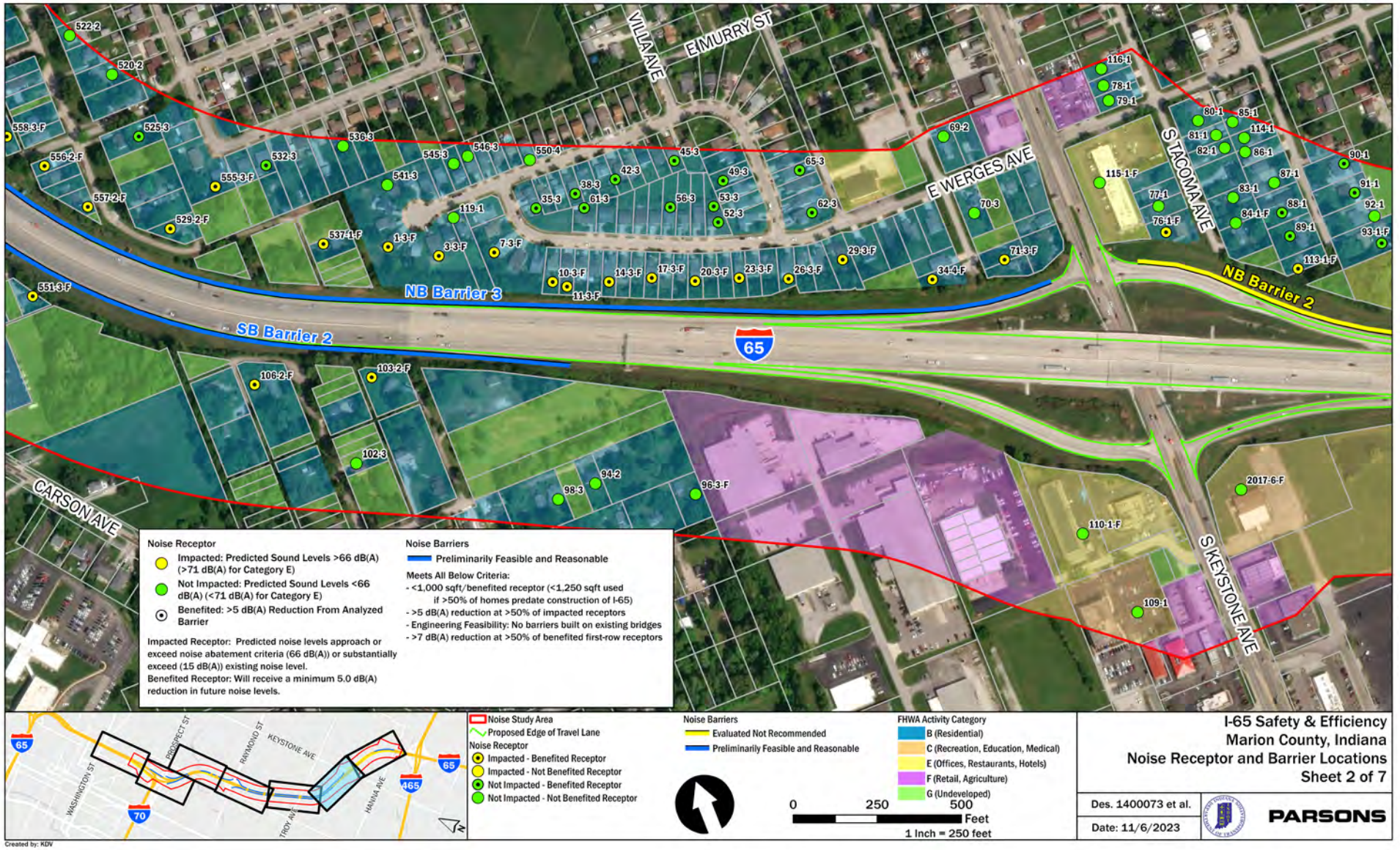
- Hanna Avenue
- Keystone Avenue
- Troy Avenue
- Raymond Street
- Pleasant Run Pkwy. South Dr.
- I-70 Interchange
- Calvary Street



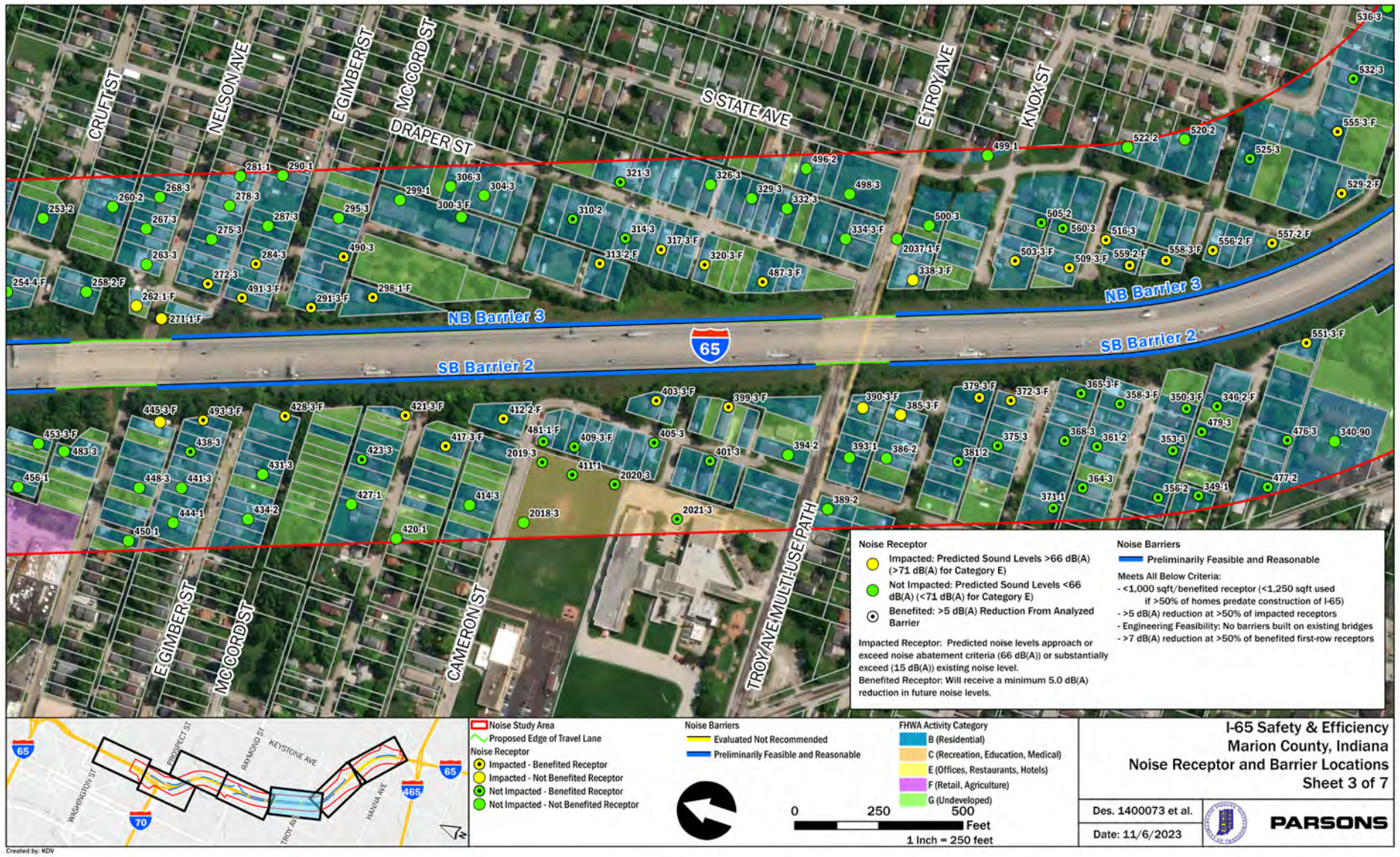
RECOMMENDED BARRIERS: Hanna Avenue



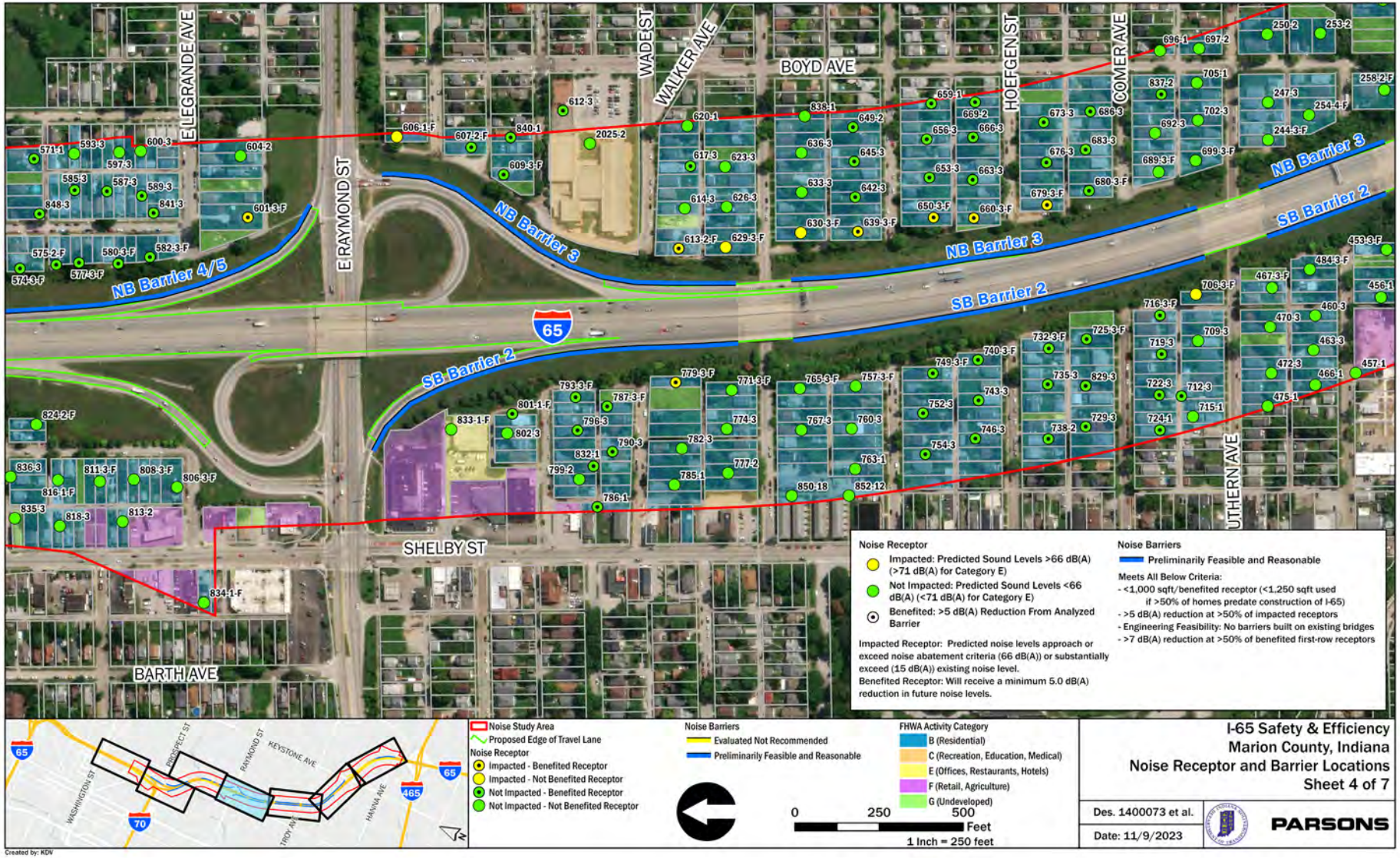
RECOMMENDED BARRIERS: Keystone Avenue



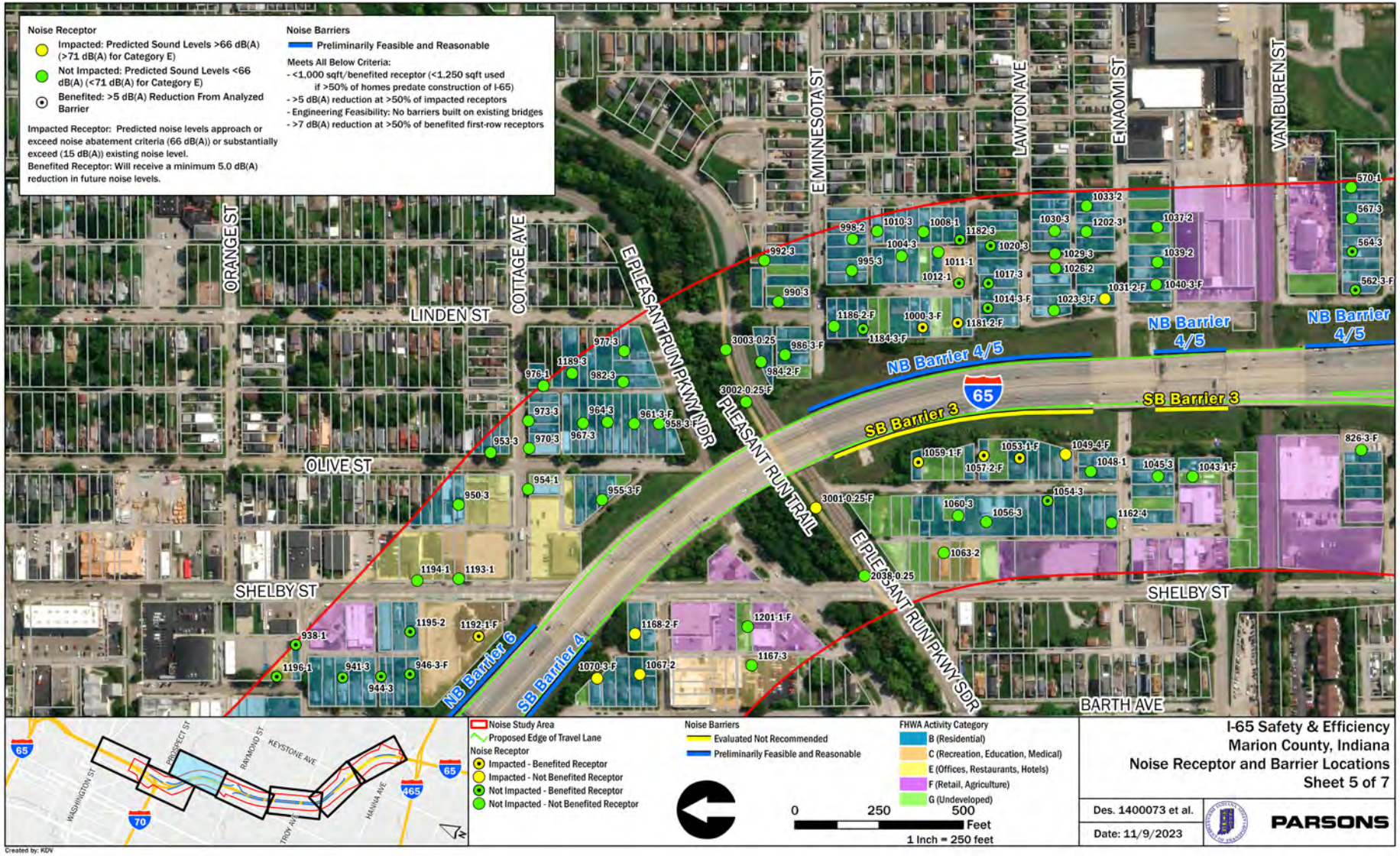
RECOMMENDED BARRIERS: Troy Avenue



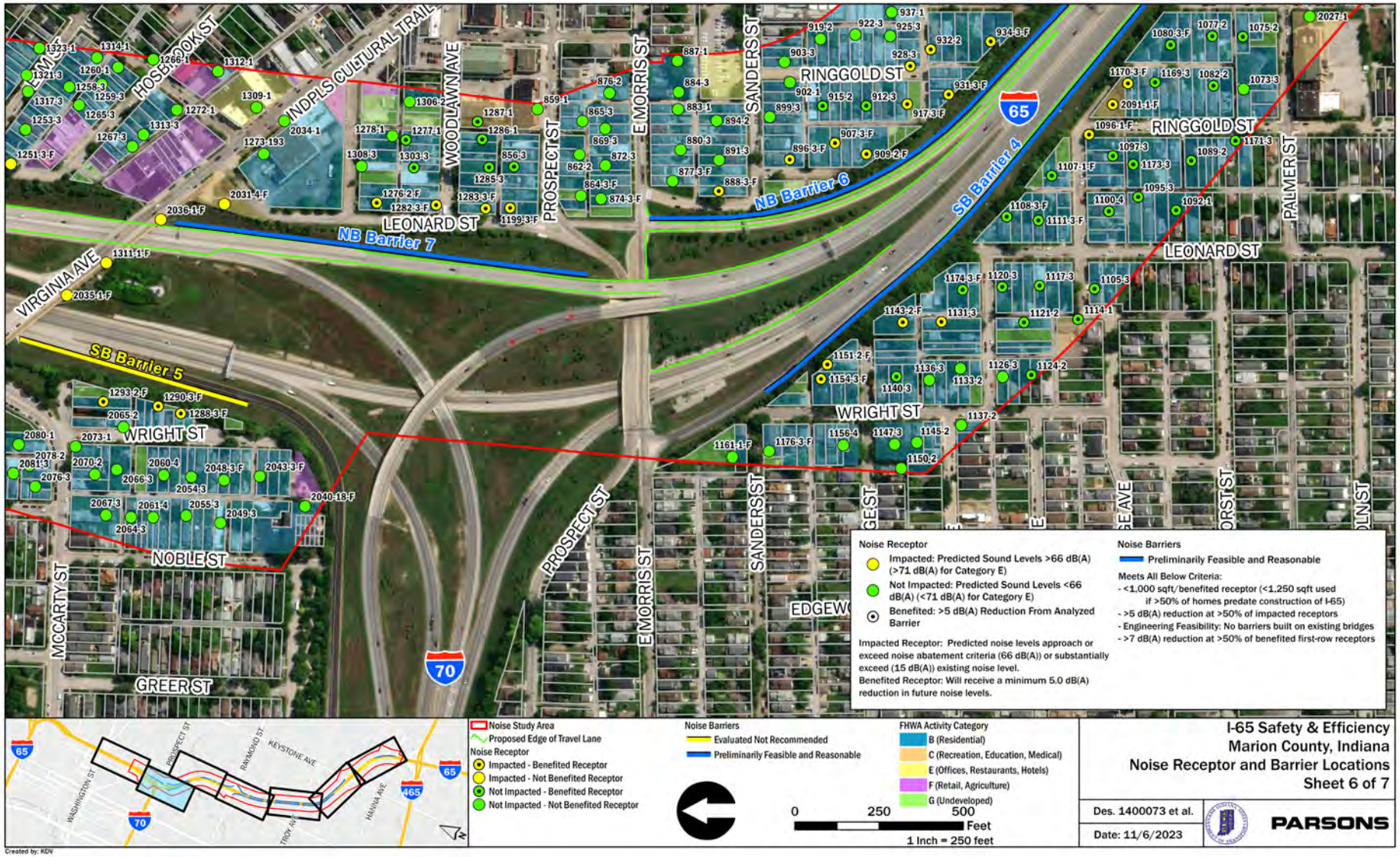
RECOMMENDED BARRIERS: Raymond Street



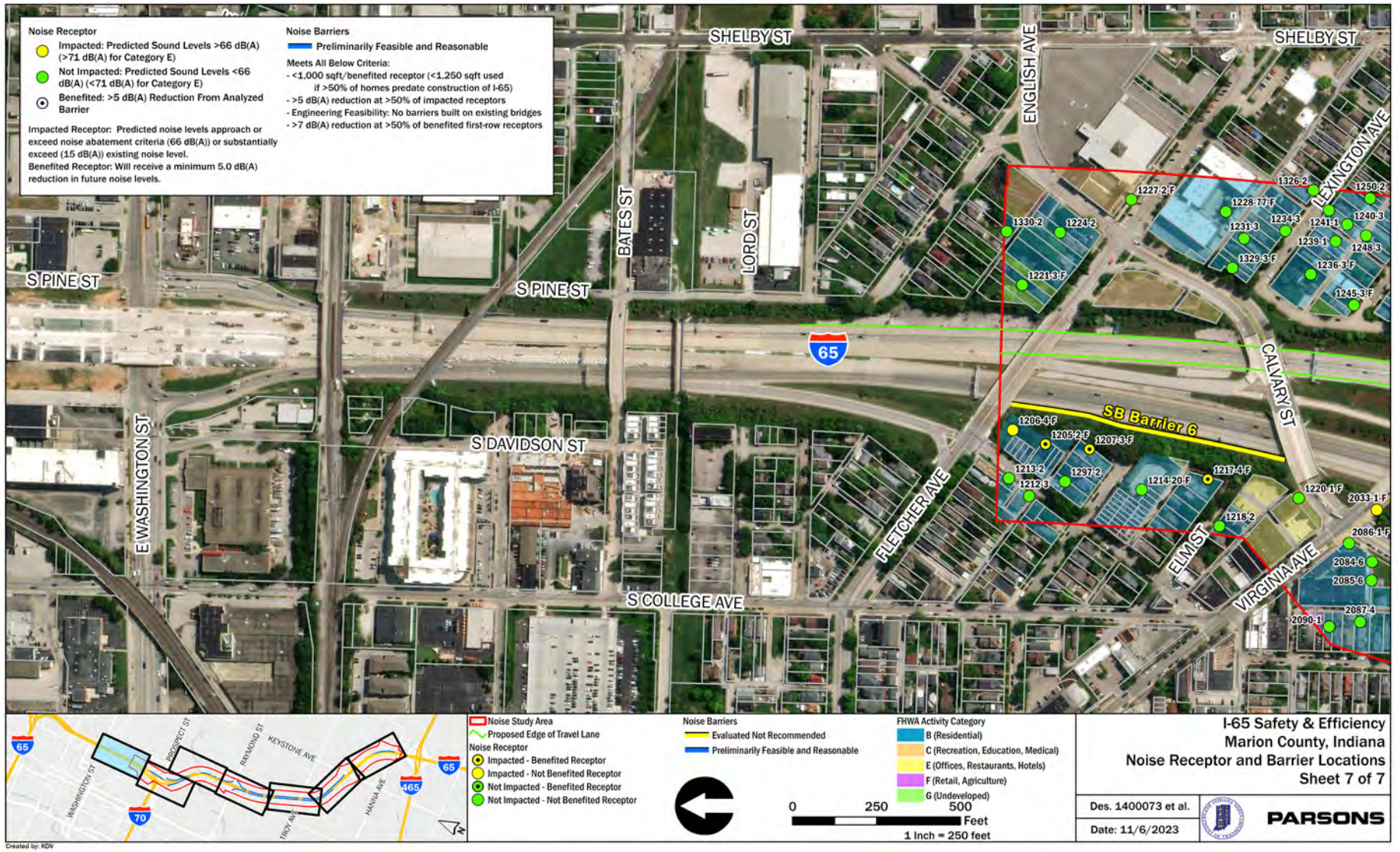
RECOMMENDED BARRIERS: Pleasant Run Parkway South Dr.



RECOMMENDED BARRIERS: I-70 Interchange



RECOMMENDED BARRIERS: Calvary Street



TYPICAL NOISE BARRIER

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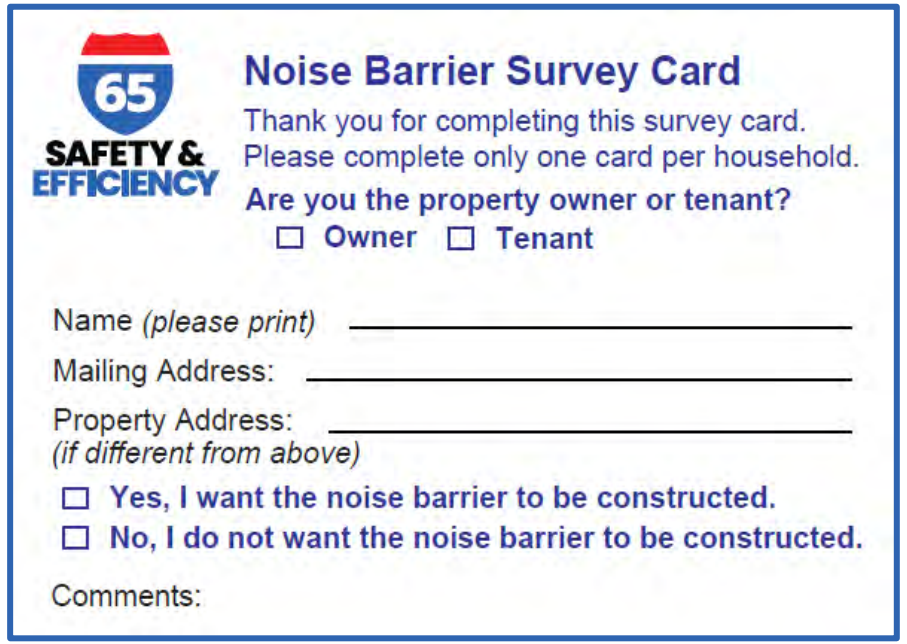
RESIDENT AND PROPERTY OWNER SURVEY

- Benefited property owners and residents were mailed a survey response card.
- A second mailing followed to those who hadn't responded.
- Completed card can be returned at tonight's meeting.
- Complete a survey at **I65SafetyandEfficiency.com/NoiseBarrier**.
- Responses are due by December 15, 2023.



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Noise Barrier Survey Card

Thank you for completing this survey card.
Please complete only one card per household.

Are you the property owner or tenant?

☐ **Owner** ☐ **Tenant**

Name *(please print)* _____

Mailing Address: _____

Property Address: _____
(if different from above)

☐ **Yes, I want the noise barrier to be constructed.**

☐ **No, I do not want the noise barrier to be constructed.**

Comments:

PROJECT OVERVIEW

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PROJECT OVERVIEW

- I-65 Safety and Efficiency in **southeast Indianapolis** will **reduce congestion** and **improve safety**.
- The nearly 5-mile project corridor stretches from north of the **I-465 interchange** to just north of **Fletcher Ave.** in downtown Indianapolis.
- The project includes **added capacity, bridge improvements** and **pavement patching and resurfacing**.

PURPOSE & NEED: ROADWAY

Purpose:

The purpose of the roadway project is to reduce corridor congestion by providing a roadway that will meet LOS D during peak hours for the design year, 2045, and to extend the life of the existing pavement by at least 10 years. Additionally, drainage features will meet current IDM standards.

Need:

The needs for this project stem from current and projected congestion during peak hours (i.e., rush hour), as well as the current pavement conditions along this section of I-65.

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PURPOSE & NEED: BRIDGES

- **Purpose:**

  The purpose of the bridges project is to accommodate the added capacity of the roadway project, extend the service life of the bridges within the project corridor by at least 10 years, and improve pedestrian facilities by meeting current IDM standard

- **Need:**

  The needs for the proposed bridge work stem from the need to accommodate additional capacity along I-65 for the roadway project, as well as the current conditions of the bridges and related pedestrian facilities.

EXPECTED IMPROVEMENTS

- Added capacity
- Bridge improvements
- Pavement resurfacing
- Drainage improvements
- Sidewalk improvements

ROADWAY IMPROVEMENTS

- Added lane between I-465 and I-70
- When complete, four lanes in each direction
- Most widening uses existing inside shoulder
- Widening to the outside for the southern 1/3 of the project

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ANTICIPATED IMPROVEMENTS

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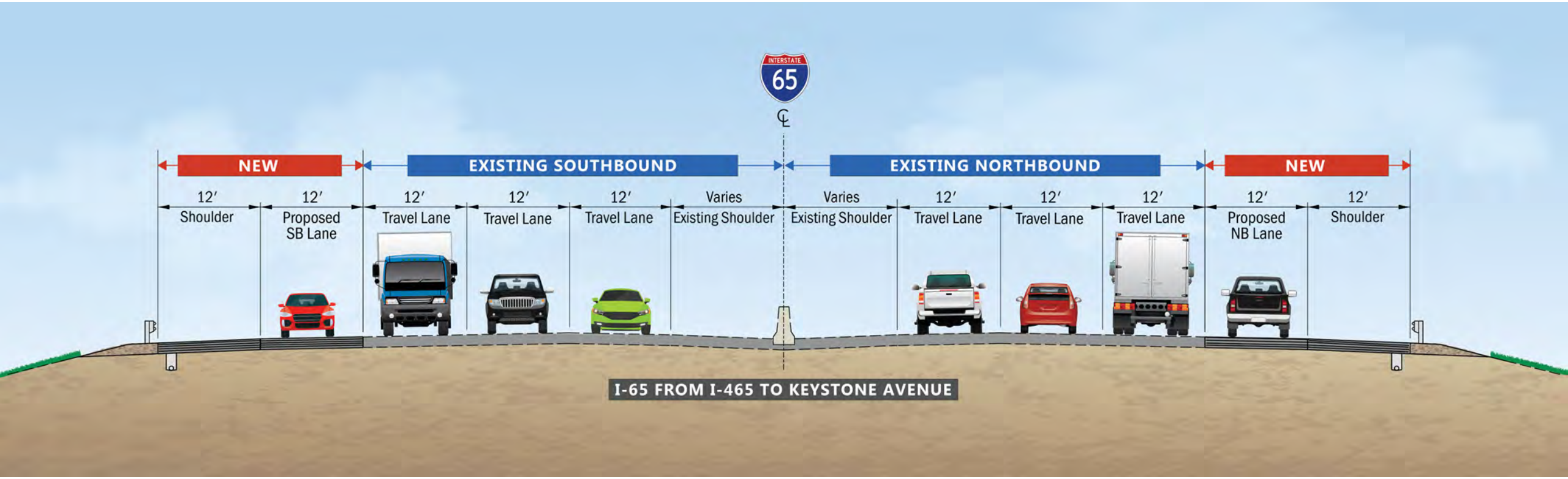
ROADWAY IMPROVEMENTS



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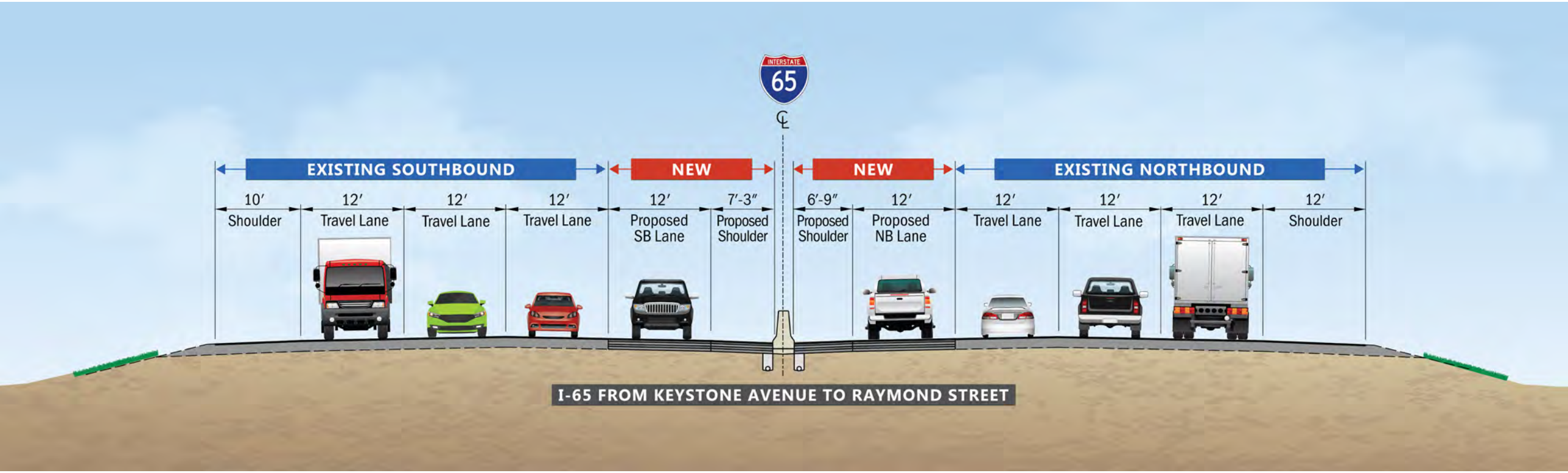
ROADWAY IMPROVEMENTS



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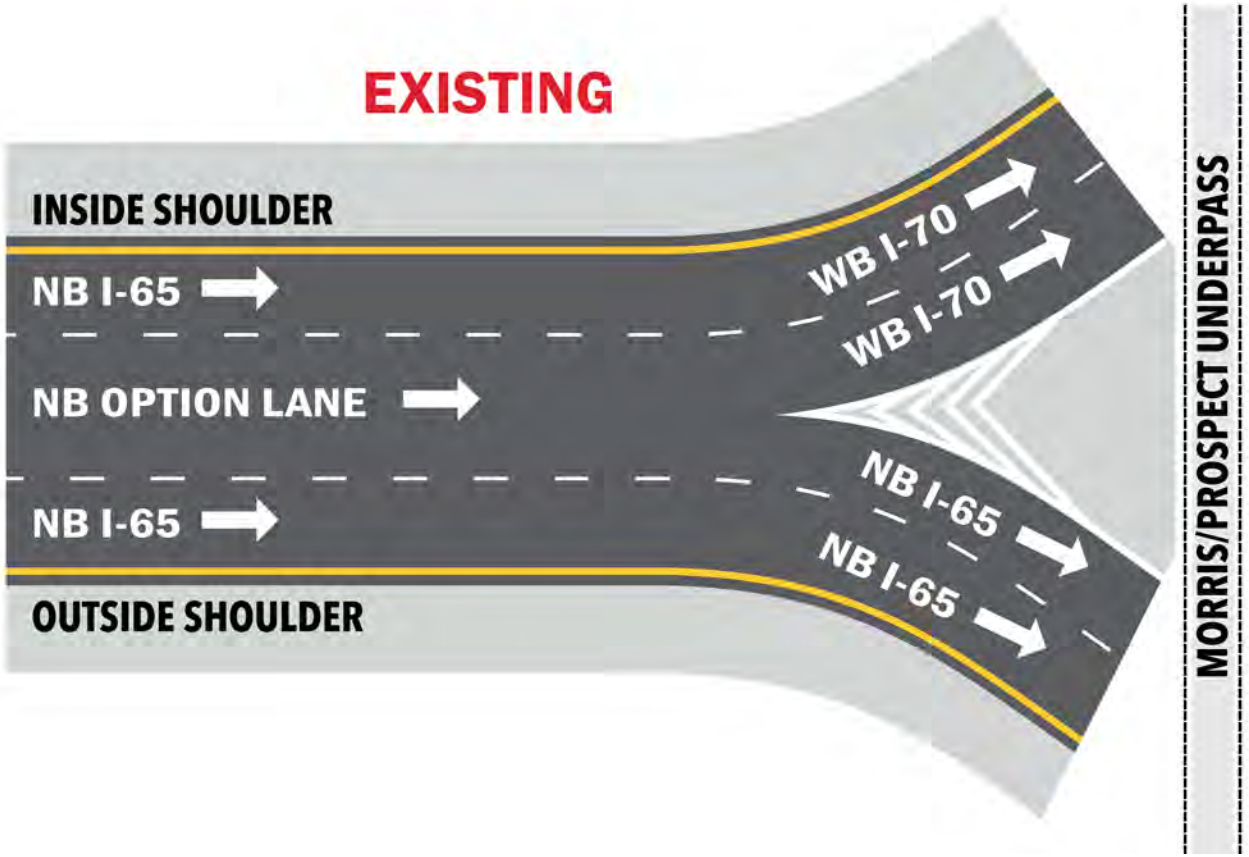
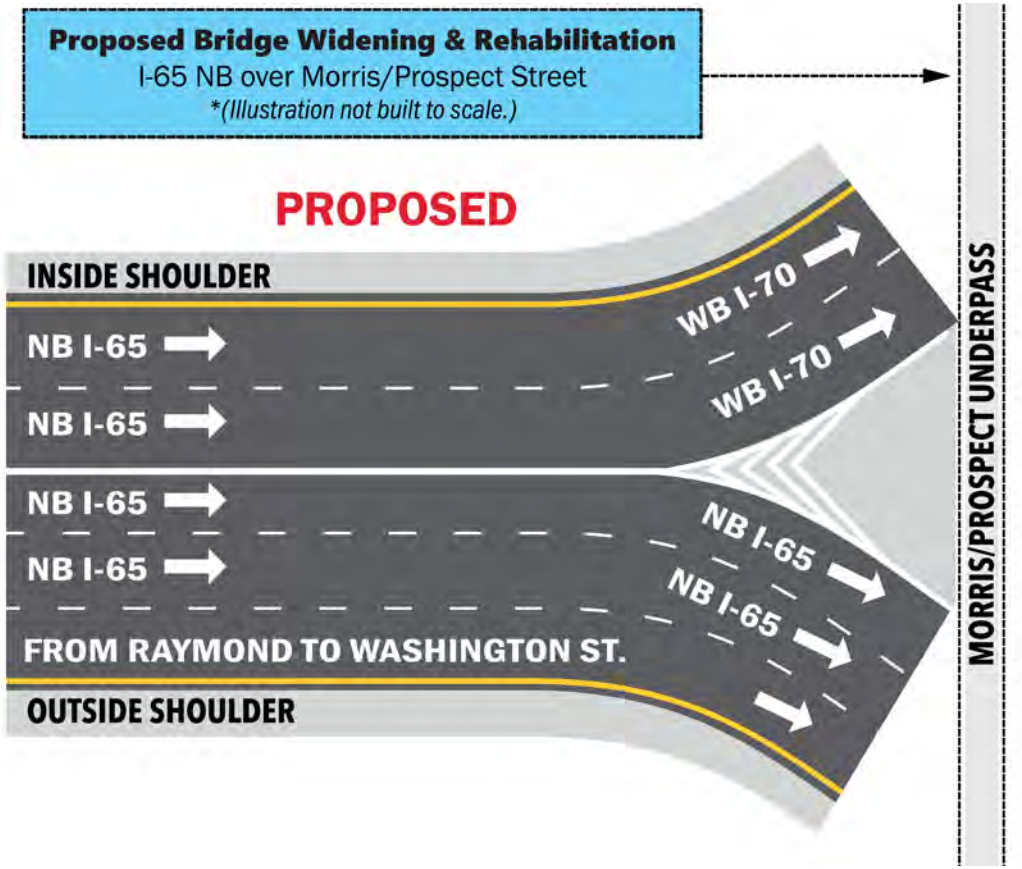
ADDED CAPACITY: MORRIS/PROSPECT





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BRIDGE IMPROVEMENTS

- Northbound bridges at three locations are being widened.
- They are Naomi Street, E. Pleasant Run and Morris/Prospect.
- The wider bridges will accommodate a fourth travel lane.
- Improvements will extend the life of all of the bridges.

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BRIDGE IMPROVEMENTS

- The Morris/Prospect bridge is also being rehabilitated.
  - This includes replacing the bridge superstructure.
  - It includes the deck and beams for the bridge.
- In addition, overlay work will extend the life of 19 other bridges along the corridor.

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NEW BRIDGE AT HANNA AVENUE

- New, replacement bridge at Hanna Avenue
- Six-foot sidewalk being added on north side of bridge
- A 10-foot shared-use path added on south side of bridge
- Shared-use path accommodates future pedestrian pathway

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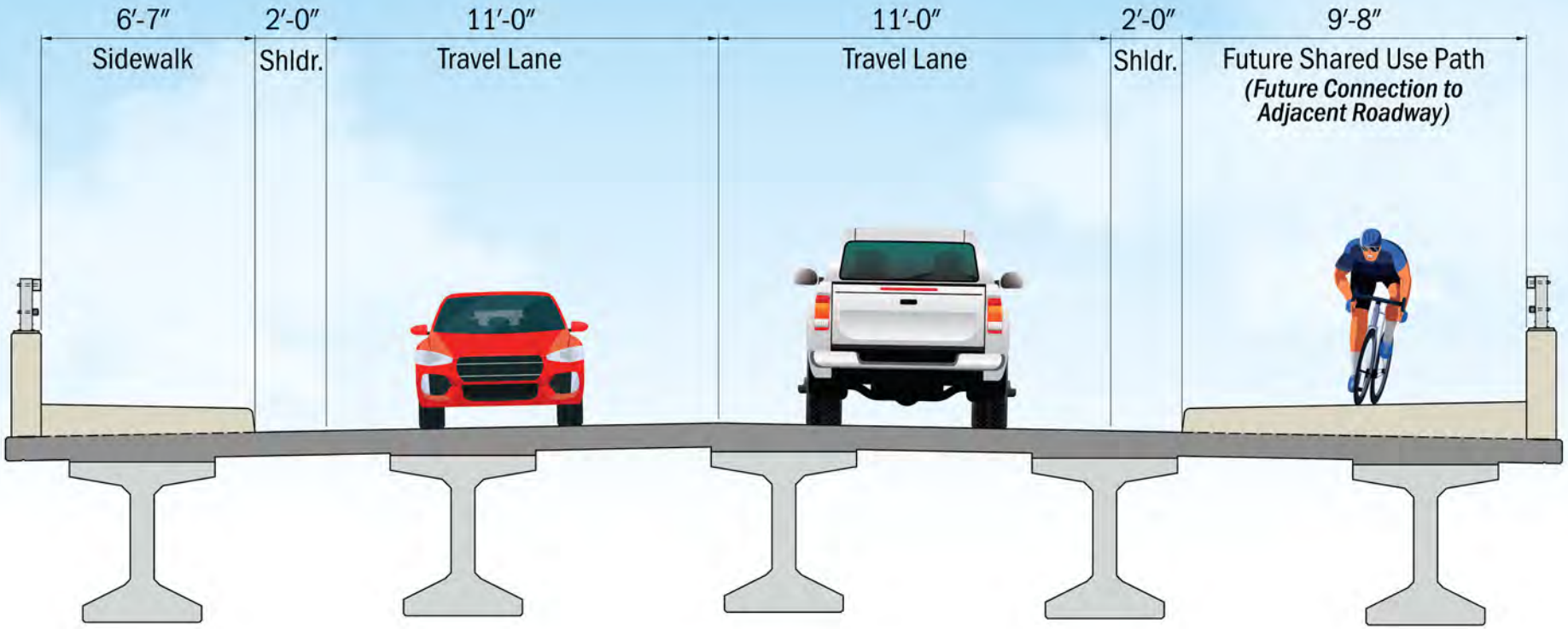
NEW BRIDGE AT HANNA AVENUE



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PAVEMENT & DRAINAGE IMPROVEMENTS

- Pavement patching and resurfacing along corridor
- Work will improve pavement and bridge conditions; minimize the need for future repairs
- Improvements to multiple drainage structures

SIDEWALK IMPROVEMENTS

- New lighting throughout the area
- New sidewalks in select areas
- Broken sidewalks replaced
- Sidewalks leveled throughout area
- ADA ramps evaluated and improved

WHAT TO EXPECT

SAFETY & EFFICIENCY

2022-2024: Environmental and final design work

Early 2025
Project letting

2022 | 2023 | 2024 | 2025

Summer 2023
Public meeting

Spring 2024
Public hearing

Spring 2025 Construction expected to begin

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NEXT STEPS

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Sign up for **email updates** on **website**

I-65 Safety and Efficiency

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Contact Us: www.INDOT4U.com 855-INDOT4U (468-6848)

RESIDENTS AND PROPERTY OWNER SURVEY

- Turn in completed survey card at tonight's meeting.
- Complete at I65SafetyandEfficiency.com/NoiseBarrier
- Return survey card be mail.
- Survey responses are **due Friday, Dec. 15**.
- Email brandon.miller@parsons.com with questions
- Or reach Brandon by phone, (317) 371-2296.

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