

# WELCOME



**OKLAHOMA**  
Transportation

## **Virtual Open House**

SH-9 in Cleveland and Pottawatomie Counties  
January 29, 2021 to February 15, 2021

Welcome to the virtual public open house for the SH-9 project in Cleveland and Pottawatomie Counties.

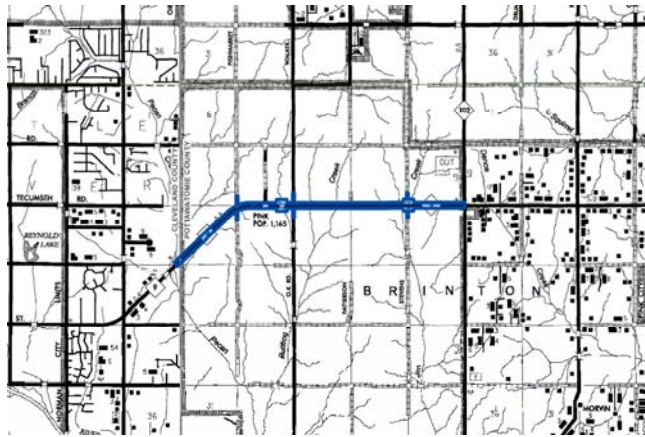
# Purpose of the Meeting

To inform the public about the proposed roadway improvements to SH-9 from east end of Pecan Creek bridge east approximately 5.5 miles to SH-102:

1. Present Proposed Improvements
2. Describe Potential Environmental Impacts
3. Obtain Public Input
4. Outline the Schedule for the Project



Project Location



The purpose of this meeting is to present the proposed design on SH-9 from the east end of Pecan Creek Bridge east approximately 5 ½ miles to SH-102, and obtain public input.

We will present the proposed design and improvements and describe potential environmental impacts.

We will outline the next steps and schedule. We will also explain how to ask questions or make comments on the project.

# Purpose of the Project

## Accommodate Future Traffic Volumes and Provide a Safety Corridor

- **Existing Roadway**
  - Two (2)- 12 foot wide driving lanes
  - 8 foot wide paved shoulders
- **Current Traffic (2020):**
  - 5,130 Vehicles/Day
- **Projected Traffic (2040):**
  - 7,180 Vehicles/Day
- **Traffic includes 11% Trucks**
- **What are we trying to do? (Project Purpose)**
  - Continuation of a Safety Corridor
  - Meet local and regional travel demands by increasing capacity
  - Upgrade the road to meet current Federal Highway Administration (FHWA) and Oklahoma Department of Transportation (ODOT) design standards



The purpose of the project is to accommodate future traffic volumes on SH-9 and provide a safety corridor. Current traffic in this segment is 5,130 vehicles per day. By 2040, traffic is expected to grow to over 7,180 vehicles per day in this segment. Trucks make up approximately 11% of the vehicles on SH-9. Depending on speed and access, a 2-lane highway can typically only handle about 10,000 vehicles per day before it becomes severely congested. These next phases of planned improvements to SH-9 are a continuation of an ODOT commitment to improve this heavily used route.

These SH-9 improvements are a continuation of a safety corridor from Norman to Tecumseh. The purpose of the project is to meet local and regional travel demands by increasing capacity and upgrade the road to meet current design standards.

# Proposed Improvements

## Proposed Roadway

Five-lane roadway with four 12-foot wide driving lanes with a 14-foot wide center lane and 10-foot wide paved shoulders with a design speed of 65 mph



The proposed improvement for this segment of SH-9 consists of widening the existing 2-lane section to a 5-lane section with four 12-foot-wide driving lanes with a 14-foot wide center turn lane and 10-foot-wide paved shoulders. The design speed will be 65 mph.

The existing SH-9 roadway will continue to provide local access to homes and businesses. Properties will have direct access to the highway like they do today. One of the main reasons this design was selected was to minimize additional right-of-way needed for the improvements versus a divided roadway section.

The existing drainage structures will be extended to accommodate the wider roadway.

SH-9 will remain open during construction and phased construction will be utilized to maintain traffic.

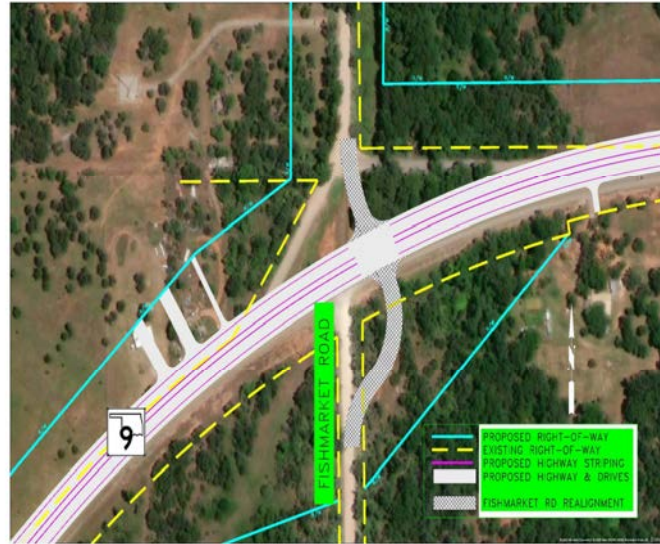
# Development of Construction Plans

## Proposed Right-of-Way

- Design Development has Advanced to Include:
  - Highway/Local Roads
  - Drainage
  - Driveways
  - Utility Corridors
- Proposed Right-of-Way for Acquisition Has Been Laid Out According to ODOT Guidelines.

### Questions About Right-of-Way Acquisition

See Public Open House Website for Additional Information



The design for the highway has advanced to the point where we can determine the proposed right-of-way. Right-of-way is property that ODOT will purchase to build the highway. The proposed right-of-way is shown with solid blue lines in the snapshot on the screen. Existing ODOT owned right-of-way is in dashed yellow lines. The hashed black and white shading is the proposed re-alignment of Fish Market Road. The white outline is the proposed highway and driveways. The purple lines inside the white reflects the proposed highway striping.

The public open house website includes an Interactive Map that shows the design and proposed right-of-way for the entire project. You can use the Interactive Map to view your property and leave comments. The public meeting website also includes additional information on the Right-of-Way purchase process.

# Development of Construction Plans

## Project Overview

- Starts east from Pecan Creek bridge
- Continues east approximately 5.50 miles
- Ends at SH-102 and includes intersection improvements



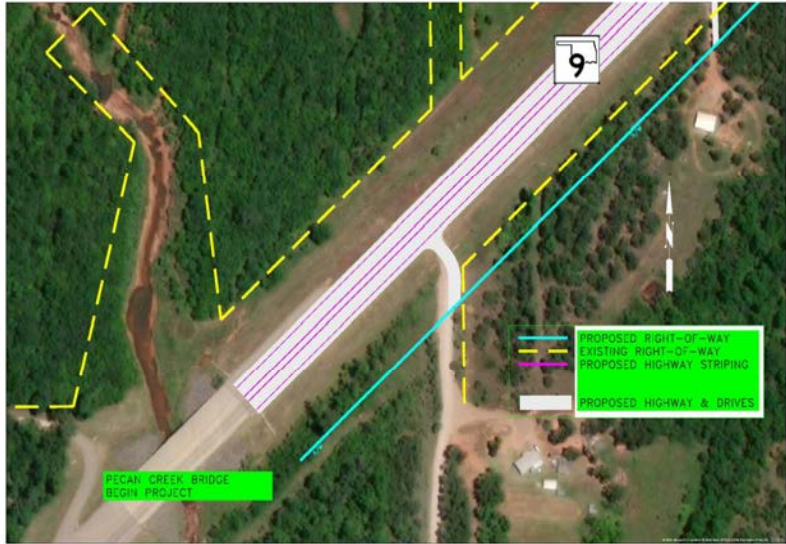
The map on the slide shows the project limits. The proposed highway will start east of the Pecan Creek Bridge and extend to the east approximately 5 ½ miles, ending at the SH-102 intersection. This project includes improvements to the intersection with SH-102.

# Development of Construction Plans

## Project Walk Through

### Begin Project

- East end Pecan Creek bridge
- Widen existing highway from 2 to 5 lanes
- Center turn lane will be a paved median except for striped left-turn bays



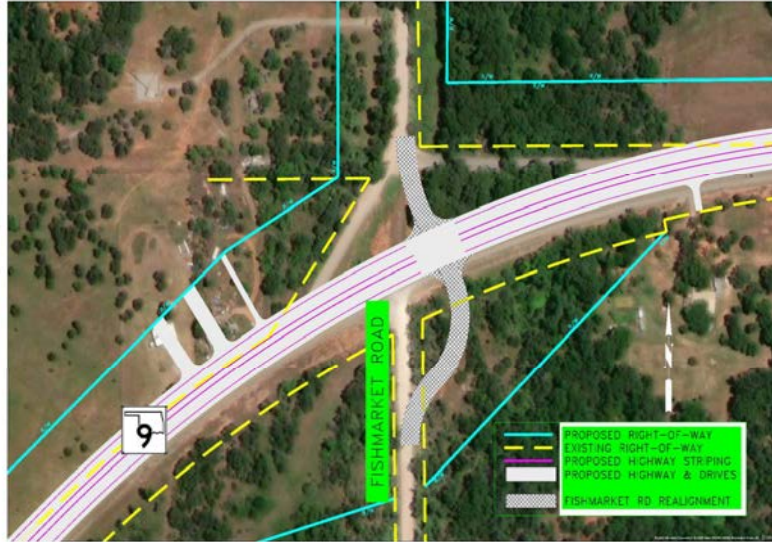
Next, we will step through the project, showing key elements or points of interest along the proposed highway. The project begins at the east end of the Pecan Creek Bridge. The project will widen the existing SH-9 highway from 2 to 5 lanes. The center lane will be a paved median except for striped left-turn bays at intersections.

# Development of Construction Plans

## Project Walk Through

### SH-9 & Fishmarket Road Intersection

- Soften curve on SH-9 and provide intersection realignment
- Increases driver safety
- Increased right-of-way needed for this safety operational improvement
- Proposed driveways shown



Continuing to the east, at the SH-9 and Fishmarket Road Intersection, the design includes an intersection modification for driver safety. This will require additional right-of-way for this operational improvement to soften the curve on SH-9 and provide a new alignment for the intersection at Fishmarket Road. Also, proposed driveways to several homes are shown.



# Development of Construction Plans

## Project Walk Through

### Pink Baptist Church

- SH-9 re-aligned to avoid impacting the Pink Baptist Church
- Additional right-of-way to the north will be needed
- Proposed driveways shown



This screen shows the proposed design for the SH-9 Roadway near the Pink Baptist Church. SH-9 was aligned to avoid the church. Therefore, the properties to the north will require more right-of-way. Also, proposed drives are shown.

# Development of Construction Plans

## Project Walk Through

### NS-333 Road and Bridge with a Detour

- Bridge over Unnamed Creek will be replaced on existing alignment
- A detour will be constructed to the north to maintain traffic during construction for the bridge replacement
- A slight re-alignment of NS-333 Road to the east if proposed due the bridge structure
- Proposed driveways shown



The bridge over Unnamed Creek will be replaced just east of NS-333 Road. The proposed design will use a temporary shoofly detour to the north to maintain traffic during construction so the bridge can be replaced on the existing alignment. The bridge will be constructed in phases. To the south of SH-9, a slight re-alignment of NS-333 Road to the east is proposed due the bridge structure. Proposed drives are shown.

# Development of Construction Plans

## Project Walk Through

### SH-9 & SH-102 Intersection

#### Conventional Intersection

- SH-9 will operate normally with 2-lanes of traffic east and west bound.
- SH-102 will be controlled with stop signs north and south bound.
- The intersection will operate similarly to existing.
- A conventional two-way stop intersection at this location is expected to reduce all crashes by 45%, and fatal or injury crashes by 31%. A signalized intersection at this location is expected to reduce all crashes by 44%, and fatal or injury crashes by 36%.



CONVENTIONAL INTERSECTION AT SH-9 AND SH-102



INTERSECTION ENLARGEMENT

#### INTERSECTION TRAFFIC CONTROL

Conventional intersection at SH-9 and SH-102. The mainline will operate (SH-9) normally with 2-lanes of through traffic east and west bound. SH-102 will be controlled with stop signs north and south bound. Right-turn movements will be controlled by a yield sign and embedded and with a stop sign north and southbound. The intersection will operate similarly to the existing configuration.



INTERSECTION OF SH-9 & SH-102

Improvements will be made at the SH-9 and SH-102 intersection. SH-9 will operate normally with 2-Lanes of through traffic east and west bound. SH-102 will be controlled with stop signs north and south bound. The intersection will operate similarly to the existing. A conventional two-way stop intersection at this location is expected to reduce all crashes by 45%, and fatal or injury crashes by 31%. A signalized intersection at this location is expected to reduce all crashes by 44%, and fatal or injury crashes by 36%.

# Potential Future Alternatives

## Future Alternatives for SH-9 and SH-102 Intersection

Two potential future alternatives are proposed for the SH-9 and SH-102 intersection:

➤ **J-turn Intersection**

- ✓ A J-Turn intersection at this location is expected to reduce all crashes by 56%, and fatal or injury crashes by 56%

➤ **Roundabout Intersection**

- ✓ A roundabout at this location is expected to reduce all crashes by 71%, and fatal or injury crashes by 87%.

Right-of-way will be purchased to accommodate either of these possible options



## We need your input

Please provide your input regarding the two alternatives via the comment form

Two potential future alternatives are proposed for the SH-9 and SH-102 intersection: a J-turn Intersection and a Roundabout Intersection. Please provide your input into which alternative you like best. The next two slides present the two alternatives.

# Potential Future Alternatives

## SH-102 Intersection

### J-Turn Intersection Alternative

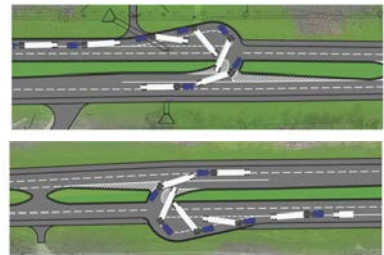
- Restricted Crossing U-Turn (RCUT) Option – Also known as a J-Turn or Super Street Intersection, allows for the mainline (SH-9) to operate normally while restricting left and through movements on the crossing highway (SH-102).
- At this specific intersection, the RCUT option features the west median U-Turn being shifted west to the crest of a hill. This allows U turning vehicles the sight distance to facilitate adequate decision-making time.



RESTRICTED CROSSING U-TURN (RCUT) INTERSECTION AKA J-TURN INTERSECTION



RCUT INTERSECTION ENLARGEMENT



J-TURN LANE ENLARGEMENTS WITH WB-67 VEHICLE SHOWN

A J-Turn Intersection, also known as a Super Street Intersection, allows for the mainline (SH-9) to operate normally while restricting left and through movements on the crossing highway (SH-102). At this specific intersection, the option features the west median U-Turn being shifted west to the crest of a hill. This allows U turning vehicles the sight distance to facilitate adequate decision-making time.

# Potential Future Alternatives

## SH-102 Intersection

### Roundabout Intersection Alternative

- A Roundabout at this location can help decrease the number of collisions by providing fewer conflict points and slower speeds.
- When operating at capacity the roundabout will typically have lower overall delay compared to other traffic control. Roundabouts can provide a calming effect by physically slowing vehicles.
- For safe operation, this alternative would require that the highway be narrowed back down to 2 lanes (one lane in each direction) along SH-9 as drivers approach the roundabout.



ROUNDAABOUT INTERSECTION



ROUNDAABOUT INTERSECTION ENLARGEMENT



A Roundabout intersection can help decrease the number of collisions by providing fewer conflict points and slower speeds. When operating at capacity, the roundabout will typically have lower overall delay compared to other intersection types. Roundabouts can provide a calming effect by physically slowing vehicles.



## Environmental Studies

### Detailed Environmental Studies Have Been Completed

- ODOT Completed Studies of:
  - Cultural Resources (Historic and Archeological)
  - Waters and Wetlands
  - Threatened and Endangered Species
  - Hazardous Materials Assessment
  - Traffic Noise
  - Floodplains Assessment
- Commitments to avoid and/or minimize impacts to the environment will be included in the project in accordance with the National Environmental Policy Act (NEPA).



ODOT has completed detailed environmental studies of the proposed improvement and have consulted with the appropriate agencies for approval. Studies of cultural resources, waters and wetlands, threatened and endangered species, hazardous materials, floodplains, and traffic noise were completed. As a result of these studies, additional commitments to avoid and/or minimize impacts to the environment will be added to the project. In order to authorize construction of the project, ODOT will complete a Documented Categorical Exclusion for Federal Highway Administration approval.

# Environmental Studies

## Study Results

### Cultural Resources (Section 106)

- No effect on Historic Properties.
- The study and report was provided to the State Historic Preservation Office and the State Archaeologist
  - Both agencies agreed with the results that there is no effect of cultural resources
- The following Tribes were consulted: Absentee Shawnee Tribe, Citizen Potawatomi Nation, Kickapoo Tribe of Oklahoma, Osage Nation, Sac & Fox Nation, and Wichita & Affiliated Tribes.



For cultural resources, field studies and reporting to the State Historic Preservation Office (SHPO) and the State Archaeologist (OAS) were completed that resulted in concurrence from both agencies. There is no effect on historic properties for this segment. ODOT also consulted with tribes regarding areas that may affect burials, cemeteries, or properties of religious and cultural significance.



# Environmental Studies

## Study Results

### Threatened and Endangered Species

- Measures to avoid or minimize impacts to the American Burying Beetle will be taken

### Measures to protect Migratory Birds will be taken

- Construction restrictions to avoid impacts to migratory birds during their nesting season will be taken



Measures to avoid or minimize impacts to American Burying Beetle will be added to the project plans.

Migratory birds are protected by the federal Migratory Bird Treaty Act. Migratory birds were found to be nesting on transportation structures and notes will be added to the plans to minimize impacts to nesting birds.

# Environmental Studies

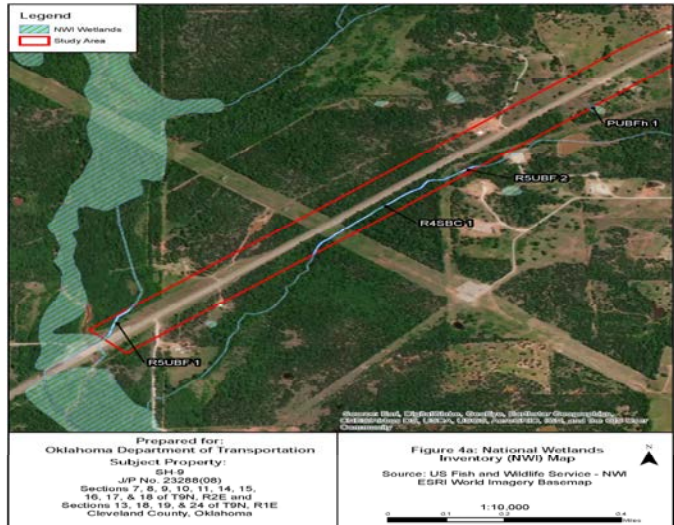
## Study Results

### Waters and Wetlands

- Impacts to Waters and Wetlands will be coordinated with the US Army Corps of Engineers
- The appropriate Clean Water Act Section 404 permit will be obtained for the project.

### Hazardous Materials

- Low risk for impacts



Impacts to waters and wetlands will occur at several streams and drainages within this segment. Any impacts will be coordinated with the U.S. Army Corps of Engineers and ODOT will obtain a Clean Water Act Section 404 permit for the project.

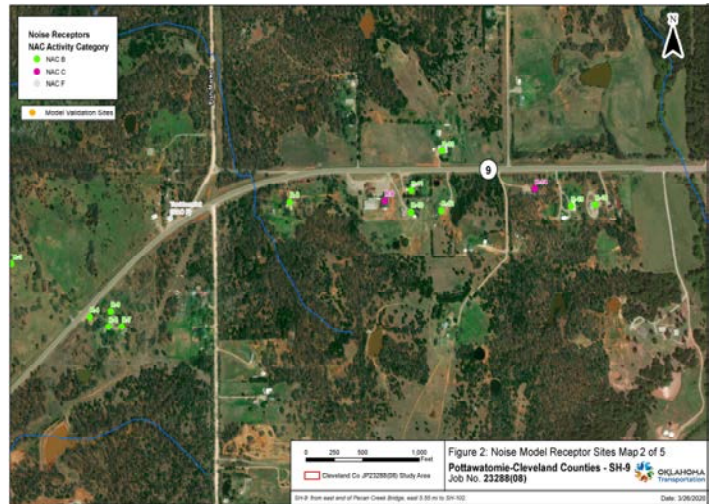
ODOT completed an Initial Site Assessment for hazardous materials and found there is low risk for impacts. The Initial Site Assessment identifies the presence of hazardous waste or soil and groundwater pollution within or adjoining to the proposed project area, in order to avoid or minimize project delays and escalated construction costs.

# Environmental Studies

## Study Results

### A Noise Study was Completed According to FHWA Regulations and ODOT Noise Policy

- Noise modeling was performed to predict potential noise impacts associated with future traffic, terrain and receptor site locations
- The model was based on the existing 2-lane roadway and proposed future 5-lane roadway
- 50 residential noise receivers were evaluated, along with 2 places of worship, an event center and cemetery



ODOT completed a traffic noise study according to Federal Highway Administration and ODOT Noise Policy. The study utilized the FHWA Traffic Noise Model to predict future noise levels, factoring in future traffic volumes, terrain and receptor site locations. Model validation was performed by measuring existing noise levels and counting existing traffic volumes at several locations in the corridor. The model was based on the existing and proposed future roadway including the future 5-lanes on SH-9. Fifty residential noise receivers were evaluated.

The green dots represent homes or in “noise language” – receptors.

# Environmental Studies

## Study Results

- Noise Impacts Occur When:
  - Exterior future noise levels are 66 dB or above; or
  - Exterior future noise levels are 15 dB or more above existing levels
- Traffic Noise Results
  - Six (6) residences will approach or exceed the 67dB.
  - No substantial increases (15 dB) in noise levels, with the highest increase in future noise levels being 6.1 dB
- The six (6) receptors that are projected to be impacted are listed in the ODOT Relocation Plan and will likely be displaced as a result of the project. Further, all six (6) receptors either have direct driveway access onto SH-9 or they are located near a cross street intersection. Without access control, the gap that would be required for driveway and street connections would make noise abatement measures ineffective and, therefore, noise mitigation would not prove feasible.



dB = Decibel

Noise impacts occur when exterior future noise levels are 66 decibels or above; or exterior future noise levels are 15 decibels or more above existing levels.

For this project, six residences will approach or exceed the 67 decibels. No substantial increases in noise levels are anticipated, with the highest increase in future noise levels being 6.1 decibels.

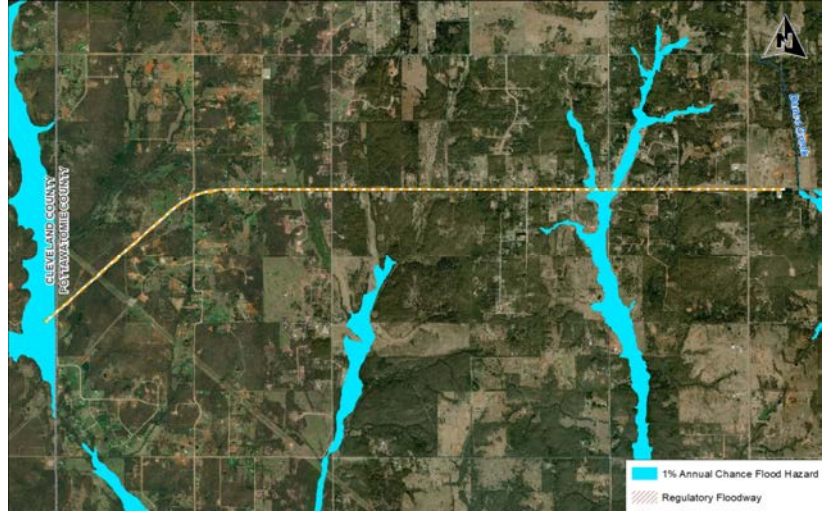
The six receptors that are projected to be impacted are listed in the ODOT Relocation Plan and will likely be displaced as a result of the project. Further, all six receptors either have direct driveway access onto SH-9, or they are located near a cross street intersection. Without access control, the gap that would be required for driveway and street connections would make noise abatement measures ineffective and, therefore, noise mitigation would not prove feasible.

# Environmental Studies

## Study Results

### Floodplains

- The project is not located within a regulatory floodway.



The project is not located within a regulatory floodway.

# Environmental Studies

## Socio and Economic Impacts – A study of demographics

### Median Income

- None of the census geographies show a median income below the poverty level of \$25,750 for 2019.

### Minority Population

- Fourteen of the 21 populated census blocks adjacent to the project area showed some minority population. Two census blocks had a ratio of minority population greater than the 2010 Decennial Census average for Pottawatomie County (27.8%) with populations of 53.8% and 100% respectively.

### Limited English Proficiency

- Two (2) of the six (6) census block groups within and surrounding the project area include households with LEP residents



None of the census geographies show a median income below the federal poverty level.

Fourteen of the twenty-one populated census blocks adjacent to the project area showed some minority population. Two of those census blocks had a ratio of minority population greater than the average for Pottawatomie County.

Two of the six census block groups showed the presence of persons who speak English “less than very well,” also referred to as persons with Limited English Proficiency. The average percentage of households that include LEP residents is 2.1% for the State of Oklahoma and 0.6% for Pottawatomie County.

# Estimated Relocations

**To Accommodate Highway Widening, Additional Right-of-Way will be Required**

**Residential**

- 11 Single Family Residences

**Commercial**

- 5 Commercial
- 3 Personal Property moves

While authorization to start the acquisition process is anticipated in the spring of 2021, it may be summer or fall of 2021 before agents begin contacting landowners.



**We encourage you to view the ODOT Relocation Brochure and Property Rights Brochure.**

**View the Interactive Map to find your property.**

Residential and commercial relocations will be required to accommodate the highway widening. Two churches are located within the project area and will not be relocated. No other community facilities were identified within or immediately surrounding the proposed project area. It is estimated that 11 single family residences, 5 Commercial buildings, and 3 Personal Property moves will be impacted by the project.

While authorization to start the acquisition process is anticipated in the spring of 2021, it may be summer or fall of 2021 before agents begin contacting landowners.

We encourage you to view the ODOT Relocation Brochure and Property Rights Brochure Tabs in this website and view the Interactive Map to find your property.



## Construction

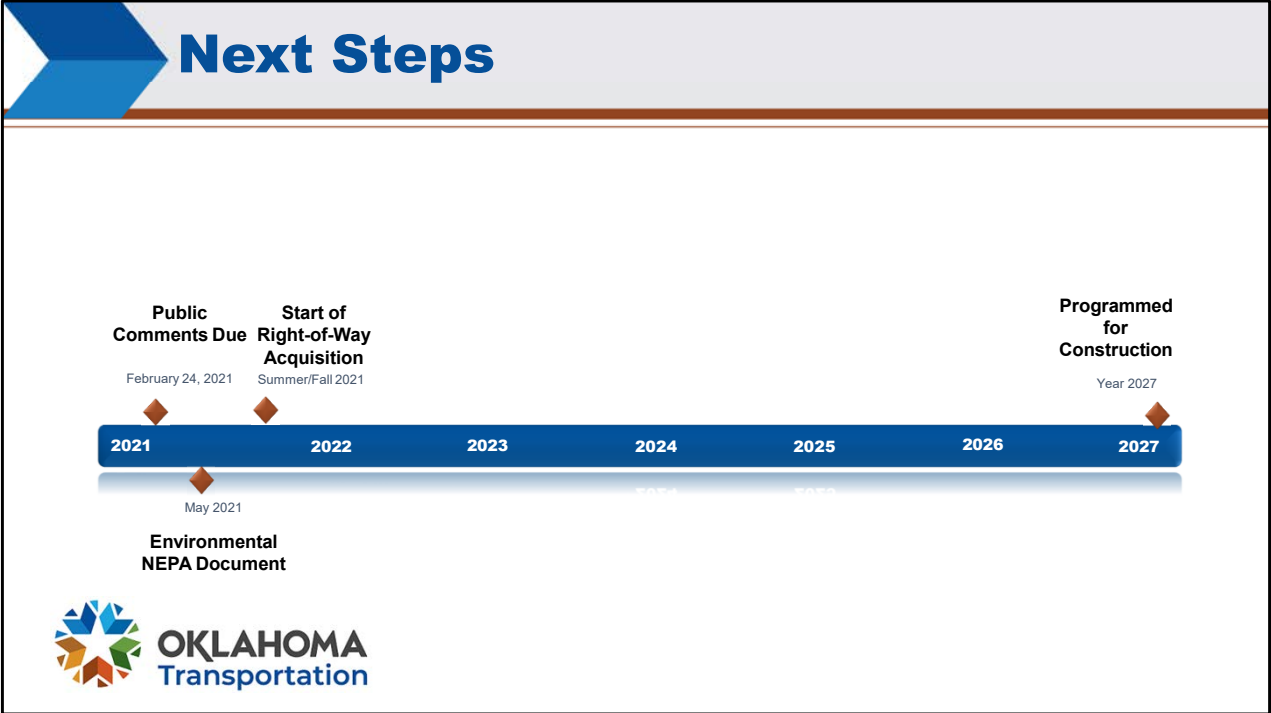
### To Accommodate Highway Widening, Additional Right-of-Way will be Required

- Construction is currently in the ODOT Eight-year Construction Work Plan to begin in Fiscal Year 2027.
- The project will be constructed in phases.
- Two-way traffic will be maintained throughout construction.
- Access will be maintained to all residences and businesses during construction.



Construction is currently in the ODOT 8-year plan to begin in Fiscal Year 2027. The project will be constructed in phases. Two-way traffic will be maintained throughout construction. Access will be maintained to all residences and businesses during construction.





This slide shows the next steps for the project. We ask that you submit your comments by February 24, 2021 so that we may incorporate your feedback and finalize the design plans. If your property is affected by the project, you can expect to hear from ODOT right-of-way agents beginning in the summer or fall of 2021. Currently, construction of the project is programmed to begin in 2027. Construction is anticipated to last approximately 2 to 2-1/2 years.



## Thank You!

### Thank You for Participating in our Virtual Open House!

Please visit the other areas of the website for more information

- **Interactive Map** – view the design on an aerial photograph, zoom in and out, find your property, etc.
- **Right-of-Way Acquisition** – information and contact information for right-of-way acquisition and relocations
- **Frequently Asked Questions** – for common questions and answers about the project
- **Submit a Comment** – submit your comments or questions on this page or send by email or mail:

The best way to leave a comment or ask a question is to submit a written comment at the Submit a Comment page or email [environment@odot.org](mailto:environment@odot.org).

For more information on this project call (405) 325-3269.



Thank you for participating! Please visit the other areas of this website for more information. This concludes the meeting presentation.