





Virtual Open House

SH-9 in Cleveland County September 25 to October 12, 2020

Welcome to the Oklahoma Department of Transportation's (ODOT) virtual Open House for the State Highway 9 improvement project located in Cleveland County.

As part of our efforts to keep the public informed about transportation improvements, we developed this slide presentation. Normally, we would host an in-person Open House, but due to ongoing concerns about COVID-19, we opted to host a virtual Open House to protect public safety.

Please take a moment to review this presentation, and feel free to contact us with questions, concerns, and comments. If you would like to view the project in more detail, please visit the Interactive Map on the virtual Open House webpage.

Purpose of the Virtual Open House

To Inform the Public About the Proposed Improvements to SH-9 from 108th Ave. SE, East to 156th Ave. SE in Norman, Cleveland County.



Objectives:

- > Present the proposed improvements
- ➤ Describe the potential environmental impacts
- ➤ Obtain public input
- ➤ Outline the next steps and the proposed project schedule



Project Location:

The project begins just east of the 108th Avenue SE and SH-9 intersection, and extends approximately 4.4 miles to the 156th Avenue SE and SH-9 intersection, all within the city of Norman corporate boundary. Review the county road map on this slide for a depiction of the general project location.

Purpose of the Meeting:

The purpose of this virtual Open House is to provide an update on the proposed highway improvements. Specifically we wanted to:

- Present the proposed improvements;
- Describe the potential environmental impacts;
- Obtain public input; and
- Outline the next steps and the proposed project schedule.

Existing Roadway Conditions

SH-9 Roadway:

- Two,12-foot wide paved driving lanes
- · 10-foot wide shoulders
- Posted 65 mph speed limit
- · Traffic volume
 - 10,190 vehicles per day (2020)
 - 15,200 vehicles per day by 2045

SH-9 Bridges:

- Reinforced concrete box culvert over an unnamed tributary to Lake Thunderbird
- · Reinforced concrete box culvert over Clear Creek





Existing Conditions:

This segment of SH-9 is a two-lane, open section highway with 12-foot wide driving lanes and 10-foot wide shoulders. It has a posted speed of 65 MPH. Current traffic volumes are estimated at 10,190 vehicles per day (vpd) and are projected to increase to 15,200 vpd by 2045.

There are two bridges within the project extent. One over a direct tributary to Lake Thunderbird, and the other is over Clear Creek, which drains into Lake Thunderbird.

Purpose & Need for the Project

To Increase Driver Safety & Accommodate Current & Anticipated Traffic

- Purpose: What are we trying to do?
- ➤ Accommodate local & region travel demands by increasing capacity
- ➤ Upgrade SH-9 to meet current Federal Highway Administration & ODOT standards
- > Enhance safety throughout the corridor
- Need: What are we trying to fix?
- > Elevated traffic volumes congestion
- > Poor intersections
 - Limited sight distances
 - Tight turning radii
 - Skewed alignments
- ➤ Safety design issues
 - Lack of turning lanes
 - Steep side slopes
 - Deteriorating pavement



Project Purpose & Need:

The important questions associated with every transportation improvement project are:

- 1. What is ODOT trying to do? and
- 2. What is ODOT trying to fix?

These questions make up the purpose and need statement which helps decision-makers justify the economic cost associated with construction and the environmental costs associated with impacts to the natural and human environments.

The volume of traffic along the SH-9 corridor will increase significantly over the coming decades, and two lanes of traffic will not be enough to handle it. Also, the safety of this segment needs to be improved. There are steep slopes, limited sight distances, skewed intersections and driveways, deteriorating pavement, and a need for dedicated turning lanes at certain intersections. ODOT needs to address, or "fix" these issues in order to accommodate local and regional travel demands, update Oklahoma's transportation infrastructure to meet federal standards, and most importantly, improve driver safety.

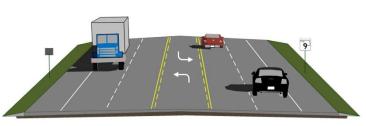
Proposed Improvements

· SH-9 Roadway:

➤ Widening the existing highway to create:

- Four 12-foot wide driving lanes
- A 16-foot wide center turning lane
- 10-foot wide paved shoulders
- 65 mph speed limit
- ➤ Widen bridge crossings to accommodate additional traffic lanes
- ➤ Reconfigure skewed driveways, side roads & entrances
- > Improve driving surface

TYPICAL CROSS SECTION



5-Lane Typical Roadway Section with Center Turn Lane
Typical includes: four 12-foot wide driving lanes; 16-foot wide center turn lane; 10-foot wide shoulders



Proposed Improvements:

In order to increase safety, ODOT proposes to widen the highway to create four 12-foot wide driving lanes with a 16-foot wide center turning lane and 10-foot wide shoulders. ODOT will also improve driving surfaces, reconfigure skewed driveways and entrances, realign side road intersections, eliminate steep slopes, improve the overall line-of-sight, extend and/or replace roadway drainage structures, and widen the two bridges.

Proposed Improvements

Project Walk-Through

- Begin project ~500 feet east of 108th Avenue SE intersection
- Tie into future ODOT project west of 108th Avenue SE (JP20266(11))
- Key intersection improvements are shown in this presentation
- View full 3-D project fly-through on webpage

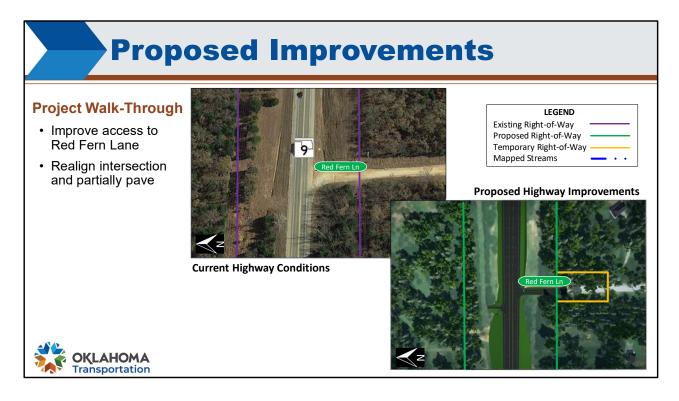




Proposed Improvements – Project Walk-Through:

The project begins about 500 feet east of the 108th Avenue SE and SH-9 intersection. It is the next segment in the overall improvement of SH-9 extending to Tecumseh, OK. This project will tie into the ODOT project to the west of 108th Avenue SE.

For a 3-D fly-through presentation of this project, please visit the webpage.



Proposed Improvements – Project Walk-Through:

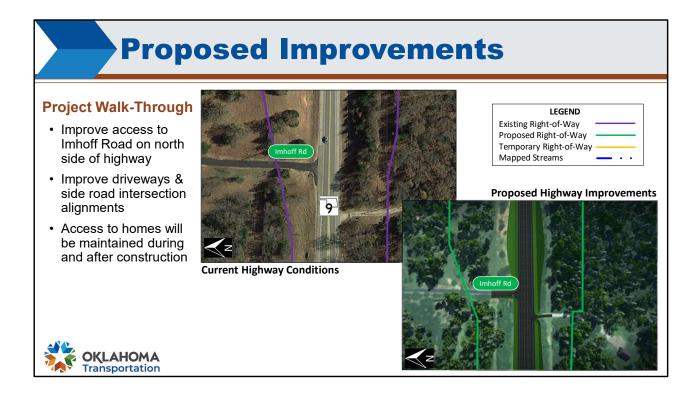
The following slides present the proposed improvements for important locations along the project length. Virtual images of the engineering plans have been super-imposed on top of a recent aerial. The colors and lines presented on the slide depict the existing or current roadway conditions, and also a representation of the proposed work or what the highway would look like once completed.

Please note that the aerial images are oriented generally east-west. That means north is on the left side of the screen. There is a north arrow symbol that depicts direction on each image.

On each slide there is an inset legend box. The color and line types represent different aspects of the plans.

- The purple solid-line is the current or existing location of ODOT's right-of-way.
- The green solid-line represents ODOT's future permanent right-of-way boundary. Between the lines represents the width of the project.
- The yellow-line indicates temporary right-of-way that ODOT will need during the construction phase, but it would not be permanent.
- The shaded dark gray fill represents the new roadway alignment, along with paved side roads, drives and entrances.

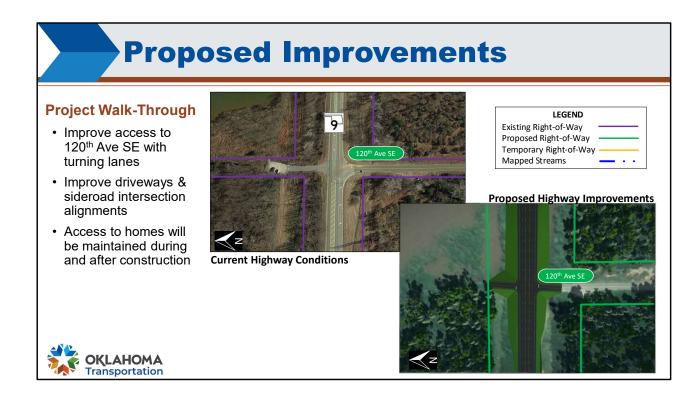
This specific slide shows the improvements at Red Fern Lane. Highway access will be realigned slightly to create a perpendicular intersection, and part of Red Fern Lane will be paved. Access to homes along Red Fern Lane will be maintained during and after construction.



This slide shows the changes at the north bound intersection of Imhoff Road. Highway access will be realigned slightly to create a perpendicular intersection.

Also, a driveway entrance just west of Imhoff Road will be improved and partially paved.

Access to homes will be maintained during and after construction.



This slide shows the proposed changes at the intersection with 120th Avenue SE. Highway access will be realigned slightly to create a perpendicular intersection. A dedicated left turn lane will be created with pavement stripes.

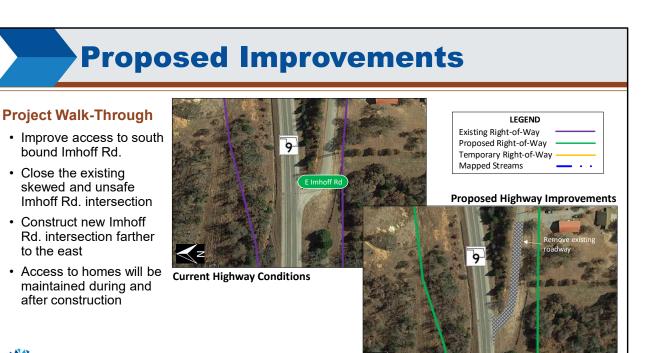
Also, the entrance to the north will be improved and partially paved.

Access to homes along 120th Ave will be maintained during and after construction.



This slide shows the changes with the Clear Creek bridge structures. The existing reinforced concrete box bridge will be replaced with an 84-foot wide clear roadway width span bridge.

SH-9 will remain open during construction of the bridge.



OKLAHOMA Transportation

This slide shows the changes at the south bound intersection with Imhoff Road. The existing skewed intersection with SH-9 creates a poor line-of-sight and is not safe. Highway access will be realigned at a new location farther east. The existing intersection location will be closed.

Access to homes along Imhoff Road will be maintained during and after construction.



This slide shows the new location of the Imhoff Road intersection. The intersection will be perpendicular to SH-9, and the line-of-sight will be greatly improved. The section of Imhoff Road that connects homes to the west will remain a street after the project is complete.

Access to all homes along Imhoff Road will be maintained during and after construction.



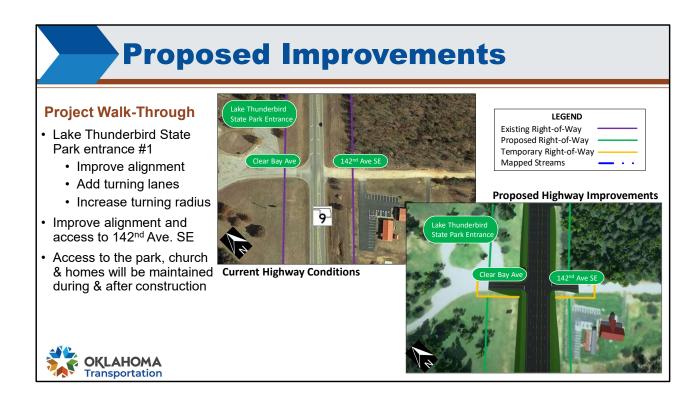
This slide shows the changes at the intersection with 132nd Avenue SE. Highway access will be realigned slightly to create a perpendicular intersection. A dedicated left turn lane will be created with pavement stripes.

Access to homes along 132nd Avenue will be maintained during and after construction.



This slide shows the changes at the intersection with 136th Avenue SE. Highway access will be realigned slightly to create a perpendicular intersection. A dedicated left turn lane will be created with pavement stripes, and a portion of 136th Street will be paved.

Access to homes along 136th Avenue will be maintained during and after construction.



This slide shows the changes at the intersection with 142nd Avenue SE and the Clear Bay Avenue entrance to Lake Thunderbird State Park.

The intersection with 142nd Ave will be improved. A dedicated left turn lane will be created with pavement stripes, and a portion of 142nd Ave will be paved. Access to homes and the church will be maintained during and after construction.

The entrance to the state park will be improved. There will be dedicated acceleration/deceleration lanes with 4-foot wide shoulder and a wider turning radius for larger vehicles and trailers. Access to the park will be maintained throughout the project.



This slide shows the improvements to the Lindsey Street intersection. The current alignment is narrow and skewed. This creates an intersection with a poor line-of-sight. Highway access will be realigned slightly to create a perpendicular intersection. A dedicated left turn lane will be created with pavement stripes, and a portion of 136th Street will be repaved.

Access to homes along Lindsey Street will be maintained during and after construction.



This slide shows the changes proposed for the Thunderbird Dam Road entrance to the state park. This entrance will be improved with a wider turning radius for larger vehicles and trailers. Access to the park will be maintained throughout the project.

Proposed Improvements

Project Walk-Through

- End project at 156th Avenue SE intersection.
- Project ties into the Little River bridge to the east
- Project advances ODOT's efforts to improve the SH-9 corridor.
- Refer to ODOT's 8-Year Construction Work Plan (2020-2027) for more information:

https://www.ok.gov/odot/Programs and Projects/8 Year Construction Work Plan/index.html





Proposed Improvements – Project Walk-Through (continued):

The project ends at the 156th Avenue SE and SH-9 intersection. It ties into the Little River bridge construction project to the east. You may recall the bridge construction work that finished recently.

Detailed Environmental Studies & Assessments

- ODOT Completed Studies:
- > Threatened & Endangered Species Assessments
- > Waters & Wetlands Reviews
- > Cultural Resources Studies
 - Historic & Archaeological
- > State Parkland Review
- ➤ Floodplains
- > Hazardous Materials Assessment
- > Traffic Noise Studies
- Commitments to avoid and/or minimize impacts to the environment will be included in the project in accordance with the National Environmental Protection Act (NEPA)





See the "Environmental Studies" section of the Virtual Open House website for more details.

Environmental Compliance:

As part of ODOT's commitment to protecting the environment, detailed environmental studies and assessments have been completed along the proposed alignment. These studies were done in compliance with the requirements of the National Environmental Protection Act (NEPA) of 1970. Ultimately, an environmental document will be generated that will include this information.

Studies and assessments of threatened and endangered species, waters and wetlands, cultural resources, parkland, floodplains, hazardous materials, and traffic noise were completed. ODOT consulted with the appropriate state, federal agencies, and Tribes for compliance approval.

As a result of these studies, additional commitments to avoid and/or minimize impacts to the environment will be added to the project design plans and environmental document.

The Federal Highway Administration must approve the environmental document before the project can proceed.

Studies & Assessments Results

Threatened & Endangered Species

- ➤ There are four federally protected species:
 - Whooping Crane
 - Red Knot
 - Piping Plover
 - Bald Eagle
- ➤ Measures to avoid or minimize impacts to protected species will be added to the project plans.

· Waters & Wetlands

- ➤ Impacts to waters & wetlands will be coordinated with the US Army Corps of Engineers.
- ➤ A Clean Water Act Section 404 permit will be obtained for the project impacts.





See the "Environmental Studies" section of the Virtual Open House website for more details.

Environmental Studies & Assessment Results:

The detailed studies and assessments resulted in the finding of federally protected species within the area. Threatened and endangered species, such as several bird species, use the Lake Thunderbird area habitat. Measures to avoid or minimize impacts to protected wildlife species will be added to the project plans.

Also, the new construction will affect several streams and creeks which are regulated by the US Army Corps of Engineers. Impacts to waters and wetlands 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.

Studies & Assessments Results

Cultural Resources

- ➤ No historic or Archaeological properties affected.
- ➤ The following tribes were consulted:

Absentee Shawnee Tribe, Citizen Pottawatomi Nation, Osage Nation, Wichita and Affiliated Tribes

Parkland

➤ The Lake Thunderbird State Park impacts—see Section 4(f) slide for more information.

Floodplain

- ➤ Portions of the project are located in flood hazard areas (Zone A).
- Any impact to floodplains will be limited or mitigated to an acceptable level.

· Hazardous Waste Sites

- ➤ Potential environmental concerns were identified adjacent to the study area.
- ➤ No impacts are anticipated.





See the "Environmental Studies" section of the Virtual Open House website for more details.

Environmental Studies & Assessment Results (continued):

Cultural resources—including both historic and archaeological aspects—were evaluated. The general project area is of tribal importance. Consequently, several tribes were consulted initially and continually throughout the process. Initial field results indicate that there are no pre-historic archaeological sites within the project construction footprint or vicinity.

Parkland—Impacts to Lake Thunderbird State park were considered throughout the entire design process. The designers were keenly aware of the importance of this resource, and purposefully limited the impacts as much as possible. Please refer to the Section 4(f) slide in this presentation for more information.

Floodplains—Portions of the project are located within floodplains and associated with the Lake Thunderbird's "backwater" area. During large rain events and wet seasons, the floodplain helps to manage flood waters and prevent impacts to homes and property. The design should minimize and/or avoid any impacts to floodplains.

Hazardous Waste Sites—There are no sites within the project footprint that have potentially hazardous materials associated with them. There is an active gas station and an old station near 108th Avenue, but are not considered to be high-risk. No adverse impacts are anticipated.

More details on the environmental studies can be found on the "Environmental Studies" section of this website.

Noise Study Results

· Traffic Noise Study

- A traffic noise study was completed according to FHWA Regulations & ODOT Noise Policy.
- ➤ Noise modeling was performed to predict sound levels for the existing condition year 2020 and the future condition design year 2045 based on roadway geometry, traffic volumes, terrain and receiver site locations.
- ≥ 23 noise receivers were evaluated, including 21 residential and 2 churches.

Noise Impacts Occur When:

- Exterior future noise levels are 66 decibels (dB) or above. -OR -
- > Exterior future noise levels are 15 dB or more above existing levels, even if future levels are below 66 dB.

Traffic Noise Results

- Future sound levels in the project area are expected to range from 52.6 to 69.8 dB.
- ➤ No receivers are anticipated to experience a substantial noise increase by 2045 ranging from -0.3 to 8.9 dB.
- ➤ 2 residence will approach or exceed 66 dB in the future—this is a noise impact



Environmental Studies & Assessment Results (continued):

Noise—ODOT completed a traffic noise study according to Federal Highway Administration (FHWA) and ODOT's Noise Policy. The study utilized the FHWA Traffic Noise Model to predict future noise levels, factoring in 2045 traffic volumes, terrain and receptor site locations. Twenty-three receptor locations were modeled, representing 21 homes and 2 places of worship.

Noise Impacts occur when future noise levels are at least 66 decibels; or future noise levels are 15 decibels or more above existing levels. The predicted sound level in the corridor is expected to range from 56.9 to 69.8 decibels.

Based on the proposed project, two homes would meet or exceed 66 decibels by 2045, which is considered to be a noise impact.

Noise Study Results

Traffic Noise Mitigation

- ➤ All affected noise receptors in the project area have direct driveway access to SH-9, requiring gaps in the wall that would make noise abatement measures ineffective.
- ➤ A noise wall was determined to be ineffective; therefore, no wall will be constructed as part of this project.





See the "Environmental Studies" section of the Virtual Open House website for more details.

Environmental Studies & Assessment Results (continued):

Noise Mitigation—Since all affected noise receptors within the project area have direct driveway access to SH-9, building a sound barrier wall is considered ineffective, as gaps would be required in the wall to accommodate driveways. A noise wall will not be constructed as part of this project.

Lake Thunderbird State Park Impacts - Section 4(f) Compliance

Section 4(f) of US DOT Act 1966

- > Section 4(f) affords protection to publicly-owned recreational areas, including state-owned properties.
- Loss of park property is a Section 4(f) action.

Lake Thunderbird Park Impacts

- ➤ Roadway widening & bridge improvements will require additional easement from within the park boundary.
- > Two entrances to Lake Thunderbird State Park will be widened.
- ➤ 2-3 acres of frontage along SH-9 will be potentially affected.
- ➤ No adverse impact to park amenities or entrances will occur.





Environmental Studies & Assessment Results (continued):

Section 4(f) of the US Department of Transportation Act of 1966 affords protection to publicly-owned recreation areas including parks. It prohibits ODOT from using certain properties, including Lake Thunderbird State Park property, unless there is no feasible or prudent alternative. ODOT needs to minimize harm to the resource and enter into an agreement with stakeholders to assure that the use of the parkland will have a "de minimis" or insignificant impact.

Impacts to Lake Thunderbird State Park were assessed by ODOT with the following findings:

- Roadway widening & bridge improvements will require additional easement from within the park boundary.
- Two entrances to Lake Thunderbird State Park will be widened.
- 2-3 acres of frontage along SH-9 will be potentially affected.
- No adverse impact to park amenities or entrances will occur.

Avoidance & Mitigation Measures - Section 4(f) Compliance

- · ODOT, US Bureau of Reclamation, OK Tourism & Recreation Dept. met to discuss the project.
- Tentative agreements were made on avoidance and mitigation measures. These included:
 - > A south off-set alignment was selected to avoid & minimize the amount of park land required.
 - > A span bridge design was selected to limit the park land required for the Clear Creek crossing.
 - ➤ All affected fencing along the SH-9 / park boundary will be replaced or improved.
 - > An acceleration/deceleration lane with a 4-ft shoulder will be constructed at the main entrance.
 - ➤ Both park entrances will be widened to improve access for larger vehicles and trailers.
 - ➤ The main park sign within SH-9 right-of-way will be removed, and ODOT will assist the park with constructing a new sign within the park property.
 - Access to the park entrances will be maintained throughout construction phases.



Environmental Studies & Assessment Results (continued):

As part of the environmental process, ODOT coordinated with the Bureau of Reclamation, Oklahoma Tourism & Recreation Department, Lake Thunderbird State Park representatives, and the Oklahoma Central Master Conservancy District with regard to avoidance and minimization of impacts on the state park and other uses of the Lake Thunderbird.

Avoidance measures included:

- Constructing the roadway on offset-south alignment was selected to specifically avoid park property
- Selecting a span bridge design (versus a box structure) at the Clear Creek stream crossing in order to limit impacts park property, wildlife habitat, and flood storage.

Mitigation measures included:

- All affected fencing along the SH-9 / park boundary will be replaced or improved.
- An acceleration/deceleration lane with a 4-ft shoulder will be constructed at the main park entrance.
- Both park entrances will be widened to improve access for larger vehicles and trailers.
- The main park sign within the existing SH-9 right-of-way will be removed, and ODOT will assist the park with constructing a new sign within the park property.
- Access to the park entrances will be maintained throughout construction phases.

Proposed Determination - Section 4(f) Compliance

· De Minimis Impact Determination

- ➤ The proposed project does not adversely affect the activities, features, or attributes of Lake Thunderbird State Park.
- ➤ Based on the cooperatively-developed plan, ODOT, in coordination with the FHWA, is proposing a *de minimis* determination with regards to Section 4(f) of the U.S. Department of Transportation Act (1966).



> ODOT welcomes your comments





Environmental Studies & Assessment Results (continued):

Based on the avoidance, minimization, and mitigation of impacts to the Lake Thunderbird State Park and US Bureau of Reclamation property as described, and the cooperatively-developed compensatory mitigation plan, ODOT, in coordination with FHWA, are proposing a *de minimis* impact finding with regard to Section 4(f) of the U.S. Department of Transportation Act (1966).

The proposed project does not adversely affect the activities, features, or attributes the park. Any direct impacts to the park property were considered minor or insignificant—or in other words "de minimis".

ODOT welcomes your comments regarding the USACE property, park impacts or any other project related concerns.

Refer to the "Submit a Comment" tab on the main webpage.

Right-of-Way Impacts

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

Right-of-Way Impacts

- ➤ No residential displacements are anticipated.
- ➤ No commercial or other private property relocations are anticipated.
- ➤ Additional frontage along SH-9 and side roads will be required.

Interact with ODOT

- ➤ Right-of-way process anticipated in Spring 2021
- ➤ For more information on personal property rights and impacts:
 - View your property on the "Interactive Map"
 - Go to the "Right-of-Way" section of website





See the "Right-of-Way" section of the Virtual Open House website for more details.

Right-of-Way Impacts:

Unfortunately, transportation projects require additional property to construct safe and efficient highways. Adverse effects to property owners are weighed heavily by ODOT. The designers looked at options to minimize impacts, and balance that with the primary purpose of improving highway safety. Any properties being impacted by the proposed right-of-way on this project may be eligible for compensation or other benefits. The eligibility of each property impacted will be determined through the right-of-way process.

Additional rights-of-way will be required along SH-9 and side roads; however, no residential or commercial displacements are expected as a result of this project. ODOT will start contacting impacted property owners in the Spring of 2021.

Construction

- Construction is anticipated to begin in Federal Fiscal Year (FFY) 2025.
- The project will be constructed in phases.
- Two-way traffic on SH-9 will be maintained throughout construction.
- Access will be maintained to all residences, businesses, & Lake Thunderbird State Park throughout construction.





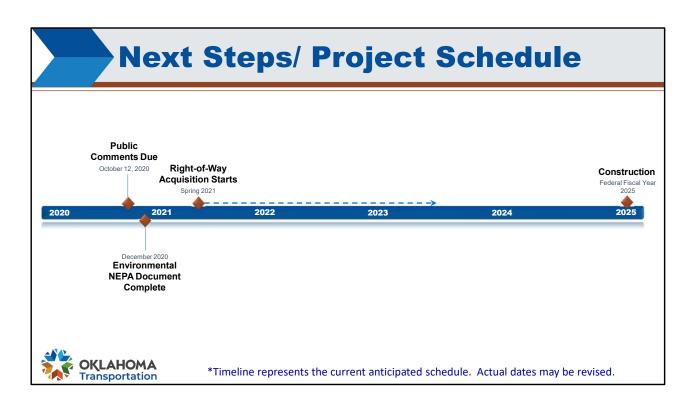
Construction:

At this time, construction is anticipated to start in 2025. The actual start date is dependent on several factors, including the availability of funds, but right now the project appears to be on schedule.

During construction, some segments will be constructed in phases. Traffic may be shifted onto temporary, adjacent lanes (also known as shoo-flies) in order to keep traffic moving efficiently.

SH-9 will remain open throughout the entire construction process to accommodate local, regional, and recreational travelers.

Access to all residences, businesses and the park property will be maintained throughout construction.



Next Step & Schedule:

This slide shows the schedule and next steps for the project. We ask that you submit your comments by October 12, 2020 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 Spring of 2021.

Currently, construction of the project is anticipated to begin in 2025.

Thank You!

Thank You for Participating in ODOT's Virtual Open House!

- Please visit other areas of the website for more information.
 - > Interactive Map view the design on an aerial photograph, zoom in & out, find your property, etc.
 - ➤ Right-of-Way Acquisition information for right-of-way acquisition & relocations
 - > Environmental Studies more information about the studies and environmental commitments
 - > 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 US 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 via email: environmental@odot.org

<u>onvironmental@odotrorg</u>

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



Please go to www.odot.org/SH9 for more information.

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

This concludes the meeting presentation portion of the Virtual Open House.