

WELCOME



OKLAHOMA
Transportation

Virtual Open House

SH-82 in Sequoyah & Cherokee Counties
October 2 to October 19, 2020

Welcome to the Oklahoma Department of Transportation's virtual public Open House meeting for the State Highway 82 improvement project located in Sequoyah and Cherokee Counties.

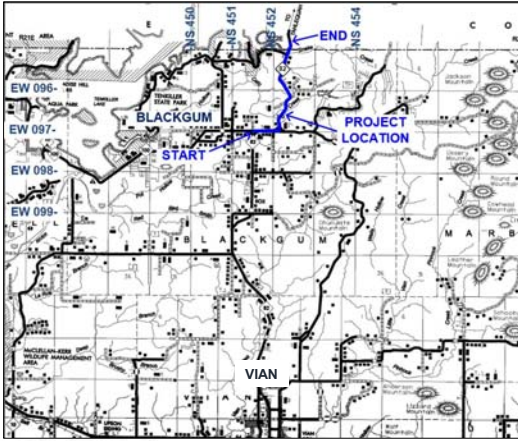
As part of our efforts to keep the public informed about transportation improvements, we developed this slide presentation. Normally, we would host an in-person Open House meeting, but due to ongoing concerns about COVID-19, we opted to host a virtual meeting to protect public safety.

Please take a moment to review the 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 Update the Public About the Proposed Improvements to SH-82:
From the SH-100/SH-82 Junction in Blackgum, Extending East & North Approximately 3 Miles
Sequoyah & Cherokee Counties



- **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 at the SH-100/SH-82 junction in the community of Blackgum, and extends east and north approximately 3 miles to just beyond the Cherokee County line. 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 meeting 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.

Project History

SH-82 Alignment Study

- **Background**

- This segment of SH-82 was originally a county road.
- There is an elevated collision rate, including multiple severe crashes.
- SH-82 needs to be upgraded to meet current highway design safety criteria.

- **Alignment Study**

- In 2015, ODOT sponsored an alignment study to evaluate potential highway improvements.
- Initial engineering designs were developed for 5 alignment alternatives.
- Construction costs, right-of-way & utility impacts, environmental constraints, and the scenic byway were all included in the evaluation process.
- The alignment study report was finalized in 2016.



Project History:

Improving the safety along the State Highway 82 corridor is a top priority for ODOT. This project is located on a particularly dangerous stretch of SH-82. It was originally a county road that was converted to a state highway, but it needs to be upgraded to meet current safety design criteria. There is an elevated collision rate, including multiple severe crashes.

Highway Alignment Study:

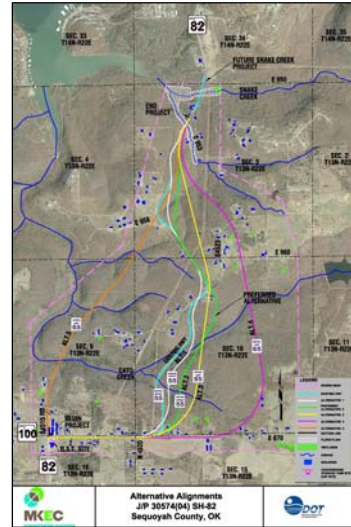
In January 2015, ODOT sponsored a study to evaluate possible alignments for the necessary improvements. Conceptual or initial engineering designs were developed for five alternatives. Factors such as constructability, economic costs, right-of-way & utility impacts, environmental constraints, and the scenic nature of the roadway were all considered. The engineering report was completed some 18 months later in 2016.

Project History

SH-82 Alternative Alignment Considered

- **Five Alternatives Evaluated Included:**

- Alternative 1 involved roadway rehabilitation with curve corrections of the existing alignment to meet a 55-mph design speed.
- Alternative 2 involved roadway reconstruction with an offset alignment to the east with a 55-mph design speed.
- Alternative 3 involved roadway reconstruction with an offset alignment to the east with a 65-mph design speed.
- Alternative 4 involved roadway reconstruction with an offset alignment further east with a 65-mph design speed.
- Alternative 5 involved roadway reconstruction with an offset alignment to the west with a 65-mph design speed.



Alternatives Alignment Considered:

Five alternatives were considered.

- Alternative 1 involved roadway rehabilitation with curve corrections of the existing alignment to meet a 55-mph design speed.
- Alternative 2 involved roadway reconstruction with an offset alignment to the east at a 55-mph design speed.
- Alternative 3 involved roadway reconstruction with an offset alignment to the east at a 65-mph design speed.
- Alternative 4 involved roadway reconstruction with an offset alignment further east at a 65-mph design speed.
- Alternative 5 involved roadway reconstruction with an offset alignment to the west at a 65-mph design speed.

Project History

Public Involvement

• Public Open House Meeting

- A SH-82 Open House was held in Blackgum on November 15, 2016.
- Presentation boards were set up, and a looping slideshow repeatedly narrated the proposed project scope & objectives.
- Personnel from ODOT and the engineering design team were available to answer questions and take comments from the public.
- Attendees were encouraged to write their specific questions or concerns related to the project.
- More information on the 2016 Open House can be found in the archive section of the ODOT Public Meetings webpage:

www.ok.gov/odot/Programs_and_Projects/Public_Meetings_and_Hearings/20161115.html



Public Involvement:

An Open House informational meeting was held at the Blackgum Mountain Volunteer Fire Department and Community Building on November 15, 2016. At that meeting, the five alternatives were presented using a looping slideshow presentation and poster boards. ODOT staff and the engineering design team were present to answer questions and take comments from the public. Attendees were encouraged to submit written comments. Several comments were received from affected residents, the general public, and state and federal agencies.

A summary report and the meeting materials presented at that Open House are available by accessing ODOT's public involvement webpage and searching the "archives". Or, copy and paste the following link into your web browser:
[https://www.ok.gov/odot/Programs and Projects/Public Meetings and Hearings/20161115.html](https://www.ok.gov/odot/Programs_and_Projects/Public_Meetings_and_Hearings/20161115.html)



Project History

Alternative Selection

• Alignment Selection Overview

- Based on the completed alignment study, public participation, & state and federal agency input, ODOT selected Alternative 2 as the preferred alignment.
 - Alternative 2 would correct the sharp curves, poor sight distances, steep slopes, and the lack of shoulders.
 - Alternative 2 is the safest option, with relatively moderate environmental and community impacts, and has the lowest overall cost of construction.
- Alternative 1 was rejected because it did not fully address safety concerns.
- Alternatives 3, 4 and 5 were eliminated due to the effects on residential and commercial properties, constructability issues, relatively severe environmental impacts, and economic costs.
- The “no-build” option (i.e., leave SH-82 as is), was rejected because of the high collision rate and overall unsafe driving conditions.



Alternative Selection:

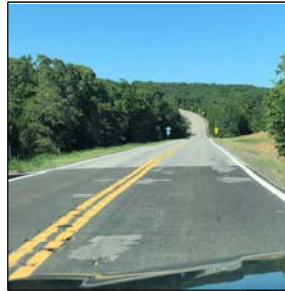
Based on the completed alignment study, public participation, and state and federal agency input, ODOT selected Alternative 2 as the preferred alignment. The preferred alignment design corrected the sharp curves, poor sight distances, steep slopes, and the lack of shoulders. It was also the safest option, with relatively moderate environmental and community impacts, and had the lowest overall cost of construction.

Alternative 1 was rejected because it did not fully address safety concerns. Alternatives 3, 4 and 5 were eliminated due to the adverse effects on residential and commercial properties, constructability issues, relatively severe environmental impacts, and economic costs—ranging from 8.4 to 17 million dollars more than Alternative 2.

In addition, the “no build” option (i.e., leave SH-82 as is) was rejected because unsafe driving conditions would remain.

Existing Roadway Conditions

- **SH-82 Roadway:**
 - Two, 11-foot wide paved driving lanes
 - No shoulders
 - Posted 55 mph speed limit
 - Traffic volume
 - 1,600 vehicles per day currently
 - 2,250 vehicles per day by 2040
- **SH-82 Bridge Over Snake Creek:**
 - Narrow bridge
 - 22-foot wide clear roadway width



Existing Conditions:

This segment of SH-82 is a two-lane, open section highway with 11-foot wide driving lanes and no shoulders. It has a posted speed of 55 MPH. Current traffic volumes are estimated at 1,600 vehicles per day (vpd) and are projected to increase to 2,250 vpd by 2040.

There is also a bridge over Snake Creek within the project extent. It is a 22-foot wide span bridge built in 1952 and is considered too narrow (or functionally obsolete) according to modern safety standards.

Purpose & Need for the Project

To Increase Driver Safety, Correct Roadway Deficiencies, & Efficiently Accommodate Traffic

- **Purpose: What are we trying to do?**
 - Accommodate local & regional travel demands
 - Upgrade the infrastructure to meet current Federal Highway & ODOT standards
 - Enhance overall safety on the SH-82 corridor
- **Need: What we are trying to fix?**
 - Safety design issues
 - Deteriorating pavement
 - Narrow shoulders
 - Sharp curves & steep hills
 - Steep slopes
 - Poor intersections
 - Limited sight distances
 - Skewed alignments
 - Elevated collision history



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.

As stated previously, there is an elevated collision history, including severe crashes, associated with this segment of SH-82. The collision rate is caused in part by narrow to no shoulders, sharp horizontal and vertical curves, steep slopes, limited sight distances, and skewed intersections and entrances. ODOT needs to address or “fix” these issues in order to accommodate local and regional travel demands, update Oklahoma’s transportation infrastructure, and most importantly, improve driver safety along the SH-82 corridor.



Proposed Improvements

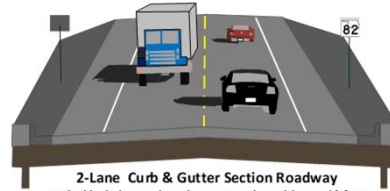
- **SH-82 Curb & Gutter Section Roadway:**
 - Widening on existing alignment – “east-west” portion
 - Create roadway with:
 - Two 12-foot wide driving lanes
 - 6-foot wide paved shoulders

- **SH-82 Open Section Roadway:**
 - Widening on offset east alignment – “north-south” portion
 - Create new roadway with:
 - Two 12-foot wide driving lanes
 - 8-foot wide paved shoulders
 - 55 mph speed limit

- **SH-82 Snake Creek Bridge:**
 - New bridge on offset east alignment
 - 40-foot clear roadway width span structure



TYPICAL CROSS SECTIONS



2-Lane Curb & Gutter Section Roadway
Typical includes: curb-and-gutter section with two 12-foot wide driving lanes; 6-foot wide shoulders



2-Lane Open Section Roadway
Typical includes: two 12-foot wide driving lanes; 8-foot wide shoulders

Proposed Improvements:

In order to increase safety, ODOT proposes to improve driving surfaces, reconfigure skewed driveways and entrances, realign county road intersections, add shoulders, eliminate sharp curves and dips, improve the overall line-of-sight, extend and/or replace roadway drainage structures, and widen the Snake Creek bridge.

The “east-west” roadway segment starting at McQuick’s Grocery will be widened to create a curb and gutter section with two 12-foot wide driving lanes with 6-foot wide shoulders on existing alignment. The curb and gutter section continues east roughly 0.6 miles to where the highway curves to the north near the intersection with county road EW-097. From this point,, the highway will transition to an open section roadway with two 12-foot wide driving lanes and 8-foot wide paved shoulders positioned on east offset alignment. Skewed side streets, county roads and drives will be reconfigured to create perpendicular intersections. The bridge over Snake Creek will be replaced on east offset alignment to create a 40-foot wide clear roadway width span bridge.

Proposed Improvements

Project Walk-Through

- The project begins at the SH-100/SH-82 junction in Blackgum, OK
- A two lane curb and gutter section will be constructed from McQuick's gas station east to where the highway turns north
- The road will be widened on existing alignment
- Driveways, entrances and side streets will be improved



Proposed Improvements – Project Walk-Through:

The following slides present the proposed improvements from the start of the project to the end. The engineering plans have been super-imposed on top of a recent aerial. The colors and lines presented on the aerial represent the proposed work or what the highway would look like once completed.

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

- The shaded gray fill with white edge lines and solid yellow center line lines represents the new roadway alignment, paved drives and entrances.
- The red solid line represents the curb & gutter segment
- The blue dashed-line is the current or existing location of ODOT's right-of-way.
- The purple solid-line represents ODOT's future permanent right-of-way boundary. (Between the lines represent the width of the project.)
- The bright green dashed-line indicates temporary right-of-way that ODOT will need during the construction phase, but it would not be permanent.
- The yellow dashed-line shows the location of a temporary utility easement. Some utilities would be moved along this line, but ODOT would not require the property for permanent right-of-way.

This specific slide shows the start of the project at the junction of SH-100 and SH-82—at McQuick's Grocery. The curb and gutter section with two 12-foot lanes and 6-foot wide shoulders begins here and extends east to the County Road EW-097 intersection. Driveways will be constructed perpendicular to the roadway. Access to all businesses and homes will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- The two lane curb & gutter continues east until the road turns north near EW-970 Road
- Roadway widened on existing alignment
- Driveways & entrances will be improved



Proposed Improvements – Project Walk-Through (continued):

For this slide, the curb and gutter section continues east toward the intersection with County Road EW-970.

The road will stay on existing alignment, but it will be widened to the north and south.

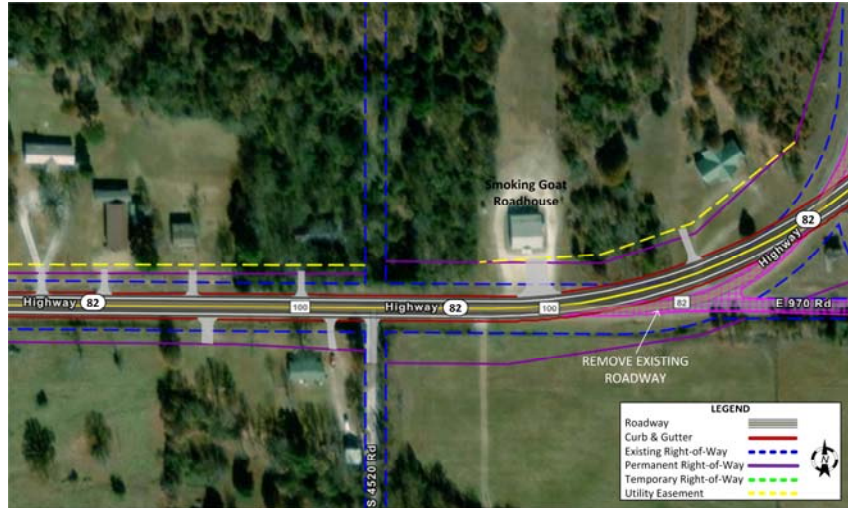
Driveways and entrances will be constructed perpendicular to the roadway.

Access to all businesses and homes will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- The two lane curb & gutter continues east until the road turns north near EW-970 Road
- After the Smoking Goat Roadhouse, the roadway begins to transition to offset alignment
- Driveways, side streets & entrances will be improved



Proposed Improvements – Project Walk-Through (continued):

For this slide, the curb and gutter section continues east toward the intersection with County Road EW-970.

The roadway will stay on existing alignment, but just past the Smoking-Goat Roadhouse, the roadway begins to transition to off-set alignment.

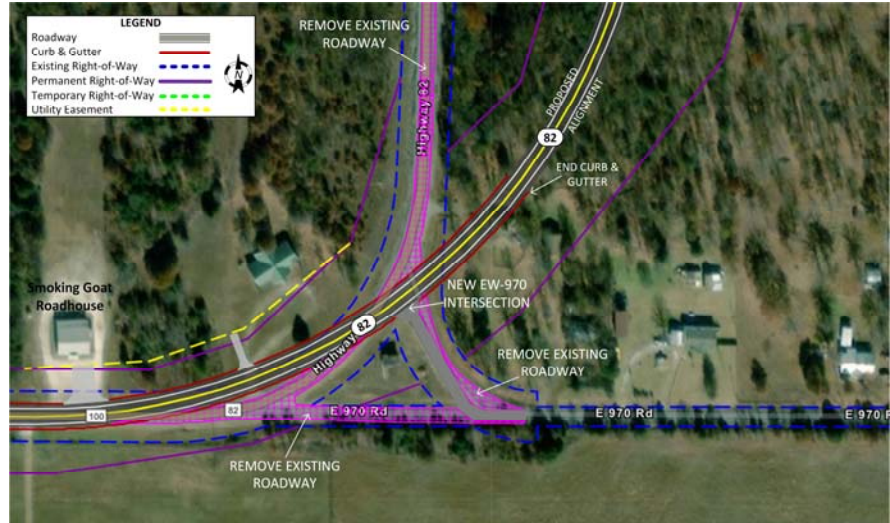
Driveways and the side street intersection will be constructed perpendicular to the roadway.

Access to all businesses, homes and churches will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- Highway shifts east on offset alignment
- The curb & gutter section ends just past the existing intersection
- The roadway transitions to a 2-lane open section highway heading north to the Cherokee County line
- The existing CR EW-097 intersection configuration will be changed
- There will be one entry/exit point from SH-82. It will be reconfigured to a perpendicular "T"



Proposed Improvements – Project Walk-Through (continued):

As shown on this slide, the intersection with County Road EW-970 will be replaced with a safer design. SH-82 will gently curve through the intersection towards the new east-offset alignment—headed north towards the Cherokee County line.

The intersection with County Road EW-097 will be reconfigured. There will only be one access point with SH-82. As shown, a perpendicular "T" intersection will be created. The existing intersection lanes and pavement will be removed.

The curb and gutter section extends through the curve and then transitions to the 2-lane open-section roadway (i.e., no curbs) roadway with 8-foot wide paved shoulders.

Access to all businesses, churches and homes will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- The two lane open section highway continues north towards the Cherokee County Line
- The new roadway is on east offset alignment
- The existing SH-82 roadway will be removed



Proposed Improvements – Project Walk-Through (continued):

For this slide, SH-82 is headed north towards the Cherokee County line.

The proposed roadway will be constructed to the east of the existing highway on new offset alignment.

The existing SH-82 roadway will be removed.

Proposed Improvements

Project Walk-Through

- The two lane open section highway continues north
- The new roadway is on east offset alignment
- A new drainage structure will be created for the Cato Creek tributary
- The existing SH-82 roadway will be removed



Proposed Improvements – Project Walk-Through (continued):

The new roadway continues north on east-offset alignment.

A new reinforced concrete box drainage structure will be constructed where the highway crosses an unnamed tributary to Cato Creek.

The existing SH-82 roadway will be removed.

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north
- New roadway stays on east offset alignment
- Existing roadway will be removed
- New drainage structure created for Cato Creek



Proposed Improvements – Project Walk-Through (continued):

On this slide, The new roadway continues north on east-offset alignment.

A new reinforced concrete box drainage structure will be constructed for the Cato Creek crossing.

The existing SH-82 roadway will be removed.

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north
- New roadway stays on east offset alignment
- Existing roadway will be removed up to EW-965 Road
- Access to homes will be maintained during and after construction



Proposed Improvements – Project Walk-Through (continued):

On this slide, the new roadway continues north on east-offset alignment. The existing roadway will be removed up to the County Road EW-965 intersection.

The segment of old SH-82, north of the County Road EW-965 intersection, will remain as a county road to provide access to residences during and after construction. The portion to the south of the intersection will be removed.

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north
- New roadway stays on east offset alignment
- Improved intersection with CR NS-4523 Road
- Existing roadway will be removed north of NS-4523 Rd intersection
- Access to homes will be maintained



Proposed Improvements – Project Walk-Through (continued):

On this slide, the new roadway curves slightly and continues north towards the Cherokee County line on east-offset alignment.

The intersection with County Road NS-4523 will be reconstructed. The side road will be reconfigured to be perpendicular with SH-82. This creates a safer intersection with a better line-of-sight.

The segment of old SH-82 roadway between the County Road EW-965 intersection and the NS-4523 intersection will remain as a county road after construction is complete. The existing SH-82 road will be removed north of the NS-4523 Road intersection.

Access to residences will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north towards the Cherokee County Line
- New roadway stays on east offset alignment
- Construct driveway to maintain access
- Remove existing roadway south of new driveway access point



Proposed Improvements – Project Walk-Through (continued):

On this slide, the new roadway parallels the existing SH-82 for a short distance as it continues north.

Access to a private property drive will be maintained. The intersection will be reconfigured to be perpendicular with SH-82.

The existing SH-82 roadway will be removed south of the driveway to the NS-4523 intersection, but will remain open north of the driveway entrance.

Access to residences will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north
- New roadway stays on east offset alignment
- Existing roadway will remain open to housing addition entrances
- Access to homes will be maintained
- Existing roadway north of entrance will be removed



Proposed Improvements – Project Walk-Through (continued):

The new roadway continues north towards the Cherokee County line on east-offset alignment.

The existing SH-82 roadway will remain as a county road and provide access to the housing addition and residences located off of County Road EW-958 (Parkview Lane) and County Road NS-4522. The old SH-82 will be removed north of the NS-4522 intersection.

Access to residences will be maintained during and after construction.



Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north
- New roadway stays on east offset alignment
- Existing roadway will be removed
- A new drainage structure will be created for the unnamed creek



Proposed Improvements – Project Walk-Through (continued):

On this slide, the new roadway continues north towards on east-offset alignment.

A new reinforced concrete box drainage structure will be constructed where the highway crosses an unnamed creek.

The existing SH-82 road will be removed, but access to residences will be maintained during and after construction along County Road NS-4522.

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north
- New roadway stays on east offset alignment
- Existing roadway will be removed
- New driveway will be constructed to maintain access to dirt road
- Access to homes will be maintained



Proposed Improvements – Project Walk-Through (continued):

On this slide, the new roadway continues north on east-offset alignment.

A new driveway is created to maintain access to dirt road on the east side.

The existing SH-82 road will be removed

Access to residences will be maintained during and after construction

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north
- New roadway stays on east offset alignment
- CR EW-953 intersections will be improved with perpendicular alignments
- Remove existing roadway south of EW-953 Rd.
- Access to homes & Cato Creek Recreational Area will be maintained



Proposed Improvements – Project Walk-Through (continued):

On this slide, the new roadway curves in towards the existing SH-82 as it approaches the Snake Creek bridge.

The existing intersection with County Road EW-953 will be reconstructed. To correct the current skewed access alignments and poor lines-of-sight, the east and west intersection points will be staggered. The east intersection, with access to the housing addition to the south, will be reconfigured to be perpendicular with the new SH-82 alignment. Slightly to the north of this point, the west EW-953 intersection will be reconstructed to be perpendicular as well. These improvements create a safer intersection.

A new drainage structure will be created for the Snake Creek tributary stream, south of the intersection.

The existing SH-82 road will be removed to the south of the EW-953 intersection.

Access to residences and the Caddo Creek Recreational Area will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- Construct bridge over Snake Creek on new east offset alignment
- Construct new 40-ft clear roadway width span bridge
- Existing bridge & roadway will be removed
- After the bridge, the new roadway transitions back on to the existing SH-28 alignment



Proposed Improvements – Project Walk-Through (continued):

This slide shows the new Snake Creek bridge crossing. The new roadway parallels the existing SH-82 on a slight offset-east alignment. The new bridge will be constructed to the east, or upstream, of the existing bridge. The new bridge will be wider, with a 40-foot roadway width verses the current 24-foot width.

The old bridge will remain in place until the new bridge is completed, after which, the existing bridge and associated roadway will be removed.

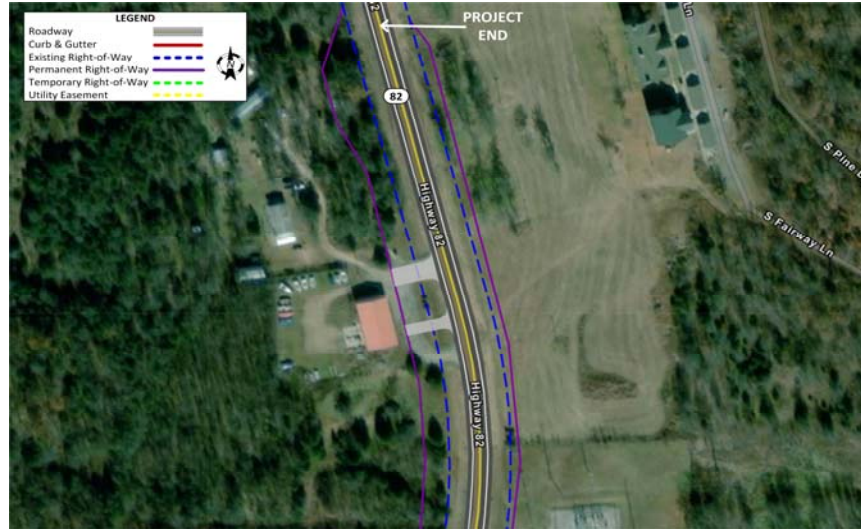
Access across Snake Creek and to all residences will be maintained during and after construction.

Proposed Improvements

Project Walk-Through

- Two lane open section highway continues north on existing alignment
- Project ends ~1,400 feet north of Cherokee County line, or ~600 feet south of the Snake Creek Road intersection
- Project advances ODOT's efforts to improve the SH-82 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):

After the Snake Creek bridge, the new roadway alignment transitions back to the existing SH-82 alignment. The existing roadway will be improved until the end of the project roughly 1,400 feet north of the Cherokee County line.

The highway will remain open and access to businesses and residences will be maintained during and after construction.

In the future, ODOT will continue to improve the SH82 corridor. Where this project ends another ODOT project will begin and extend to Cookson. (This future project is in the preliminary planning phase.)

For more information about SH-82 corridor projects, refer to ODOT's 8-Year Construction work plan on the "Programs and Projects" tab of the ODOT website. Or, copy and paste the following link into your web browser:

https://www.ok.gov/odot/Programs_and_Projects/8-Year_Construction_Work_Plan/index.html



Environmental Compliance

Detailed Environmental Studies & Assessments

- **ODOT is in the Process of Completing:**
 - Threatened & Endangered Species Assessments
 - Water & Wetlands Reviews
 - Cultural Resources Studies
 - Historic & Archaeological
 - USACE Property Impact Review
 - Floodplain Review
 - 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)



Environmental Compliance:

As part of ODOT’s commitment to protecting the environment, detailed environmental studies and assessments are being completed along the proposed alignment. These studies are being 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, US Corps of Engineers’ land, floodplains, hazardous materials, and traffic noise were completed. ODOT is currently consulting with the appropriate state and 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.

Environmental Compliance

Studies & Assessments Results

- **Threatened & Endangered Species**
 - There are several federally protected species within the general project area—including birds, bats, an insect and mussels.
 - 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 (USACE).
 - Clean Water Act Section 404 permits 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 bat species, use the forest habitat that is associated with the new highway alignment. Measures to avoid or minimize impacts to protected wildlife species will be added to the project plans. More information on the environmental studies can be found on the “Environmental Studies” section of this website.

Also, the new alignment will cross 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.

Environmental Compliance

Studies & Assessments Results

- **Cultural Resources (Section 106)**

- The following Tribes were consulted as part of the process: Caddo Nation, Cherokee Nation, Osage Nation, & the United Keetoowah Band of Cherokee.
- No archaeological sites were identified within the project study area.
- Potentially historic building complexes were identified.
 - Determination currently underway
- There are potentially significant archeological resources within the general vicinity of the project.
 - Environmental Mitigation Notes will be included in the project plans to avoid these areas of concern.



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 also has significant tribal importance, including being associated with the Cherokee Trail of Tears historic route. Consequently, several tribes were consulted initially and continually throughout the process.

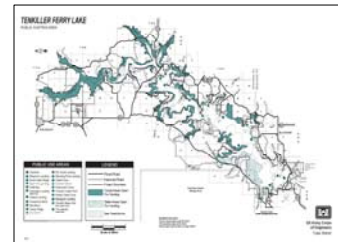
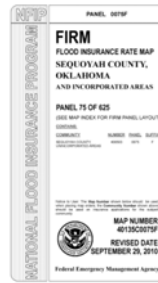
Initial field results indicate that there are no pre-historic archeological sites within the new alignment. However, there are significant sites in the general area that need protection. Environmental avoidance notes will be included in the project plans to protect these areas of concern.

There were five potentially historic building complexes identified during the field studies. These buildings were at least 45 years old, but their actual historic significance is currently under determination by the State Historic Preservation Office. If determined to be of important historic value, the appropriate measures will be taken to avoid, minimize or mitigate any associated impacts to these structures.

Environmental Compliance

Studies & Assessments Results

- **Public Hunting Lands**
 - USACE Lake Tenkiller impacts—refer to the Section 4(f) compliance slide for more information.
- **Floodplain**
 - Portions of the project are located in special flood hazard areas.
 - There will be no floodplain impacts.
- **Hazardous Waste Sites**
 - Potential environmental concerns were identified adjacent to the study area.
 - No impacts are anticipated, but additional assessment may be required.



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

Environmental Studies & Assessment Results (continued):

Public Hunting Land & Floodplains- A portion of the project near the Snake Creek bridge is located within a floodplain, and some of the area is associated with the Lake Tenkiller flood pool or "backwater" area. During large rain events and wet seasons, the floodplain and flood pool helps to manage flood waters and prevent impacts to homes and property. This land is primarily owned and managed by the US Army Corps of Engineers. Along with flood management, the Army Corps allows the public to hunt on their property. Consequently, ODOT is working with the them to avoid any adverse impacts to Lake Tenkiller's flood pool storage volume and to the public hunting lands.

Hazardous Waste Sites - There are a couple of sites within the project footprint that have potentially hazardous materials associated with them. There is an active gas station and an old grocery store that is no longer in operation—both of which have underground storage tanks. ODOT is currently assessing the potential impacts, but these sites are not considered to be high-risk. No adverse impacts are anticipated.



Environmental Compliance

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 2019 and the future condition design year 2040 based on roadway geometry, traffic volumes, terrain and receiver site locations.
 - 34 noise receivers were evaluated, including 30 residences, 2 churches, 1 restaurant, and 1 hotel.
- **Noise Impacts Occur When:**
 - Exterior future noise levels are 66 decibels (dB) or above.
 - 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 32.7 to 63.5 dB.
 - No receivers are anticipated to experience a substantial noise increase by 2040, ranging from -8.0 to 11.1 dB.
 - Noise abatement measures are not required for this project.



Environmental Studies & Assessment Results (continued):

Noise- ODOT completed a traffic noise study according to Federal Highway Administration (FHWA) and ODOT Noise Policy. The study utilized the FHWA Traffic Noise Model to predict future noise levels, factoring in 2040 traffic volumes, terrain and receptor site locations. Thirty-four receptor locations were modeled, representing 30 homes, 2 places of worship, 1 restaurant and a resort hotel.

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 32.7 to 63.5 decibels.

Based on the proposed project, no noise impacts are expected.

Environmental Compliance

USACE Lake Tenkiller - Section 4(f) Compliance

- **USACE Lake Tenkiller Impacts**

- No impacts to Lake Tenkiller State Park are anticipated.
- No impacts to any wildlife management area are anticipated.
- Roadway widening & bridge improvements will require conversion of USACE designated hunting land to non-recreational use.
 - ~2-3 acres of land will be potentially affected.



- **Section 4(f) of US DOT Act 1966**

- Section 4(f) affords protection to publicly-owned recreational areas, including certain federal properties.
- Loss of designated hunting land is considered a Section 4(f) action.



Environmental Studies & Assessment Results (continued):

SH-82 is an important transportation corridor connecting recreational areas around Lake Tenkiller. Impacts to Lake Tenkiller and the general area were assessed by ODOT with the following findings:

- There are no direct impacts to Lake Tenkiller State Park property.
- There are no direct impacts to any recreational areas.
- There are no direct impacts to any wildlife management areas.
- Keeping SH-82 open during construction will allow continued access to the surrounding recreational, wildlife, and park areas.

The Snake Creek bridge construction will require an additional 2-3 acres of right-of-way. Consequently, an easement from the US Army Corps of Engineers will be needed to construct the new bridge. The property in this area is designated hunting land, and the conversion of this property to non-recreational use is considered to be a Section 4(f) action.

Section 4(f) of the US Department of Transportation Act of 1966 affords protection to publicly-owned recreation areas. It prohibits ODOT from using certain properties, including hunting lands, unless there is no feasible or prudent alternative. ODOT needs to minimize harm to the resource and enter into an agreement with the US Army Corps of Engineers to assure that the use of the property will have a “de minimis” or insignificant impact.



Environmental Compliance

Avoidance & Mitigation Measures - Section 4(f) Compliance

- **Coordination**

- ODOT & USACE met to discuss the project.
- Tentative agreements were made on avoidance and mitigation measures.

- **Avoidance Measures**

- An east off-set alignment was selected to avoid & minimize impacts to the USACE flood pool
- A longer span bridge design was selected to limit USACE land conversion.

- **Mitigation Measures**

- Access to the USACE hunting property will be maintained during hunting season.
- Stream corridor impacts along Snake Creek will be assessed & quantified by the USACE.
 - ODOT will plant an equivalent number of trees.
 - The trees will be planted in the nearby Snake Creek Campground.
 - The USACE will be responsible for tree care and survivability.



Environmental Studies & Assessment Results (continued):

As part of the environmental process, ODOT and the US Army Corps of Engineers met to discuss the conversion of this property, and made a tentative agreement for avoidance and mitigation measures.

Avoidance measures included:

- Constructing the bridge on offset-east alignment to minimize the amount of hunting property and flood pool storage area needed.
- Utilizing a span-design bridge and avoiding fill along the stream corridor to avoid impacts to wildlife habitat and flood pool storage.

Mitigation measures included:

- Access to the hunting area will be maintained during construction.
- Unavoidable impacts along the Snake Creek corridor will be assessed & quantified by the US Army Corps of Engineers.
- ODOT will plant an equivalent number of trees to offset the habitat loss.
- The trees will be planted in the nearby Snake Creek Campground.
- The US Army Corps of Engineers will be responsible for tree care and ensure survivability.

Environmental Compliance

Proposed Determination - Section 4(f) Compliance

- **De Minimis Impact Determination**
 - The proposed project does not adversely affect the activities, features, or attributes of hunting land.
 - 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).
- **Public Input Requested**
 - ODOT welcomes your comments
 - Please go to the “Submit a Comment” section of ODOT’s virtual Public Meeting webpage.



Environmental Studies & Assessment Results (continued):

Based on the coordination between ODOT and US Army Corps of Engineers, along with the proposed avoidance and mitigation steps, the direct impacts to the hunting property is considered minor or insignificant—or in other words “*de minimis*”.



ODOT welcomes your comments regarding the USACE property, hunting 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 & New East Offset Alignment, Additional Right-of-Way will be Required

- **Right-of-Way Impacts**
 - Three residential displacements are anticipated.
 - Two commercial and other private property relocations are anticipated.
 - Additional frontage along SH-82 & side roads will be required.
- **Interact with ODOT**
 - For more information on property rights and impacts:
 - View your property on the “Interactive Project Map” on ODOT’s virtual Open House webpage.

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 several alternatives to minimize impacts, and balanced 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 relocation benefits. The eligibility of each property impacted will be determined through the right-of-way process.



Construction

- Construction is anticipated to start in July 2023.
- The project will be constructed in phases.
- During some phases, traffic will be shifted to a shoofly detours in order to maintain traffic flow.
- SH-82 will remain open throughout construction.
- Access will be maintained to all residences, businesses, churches and USACE property.



Construction:

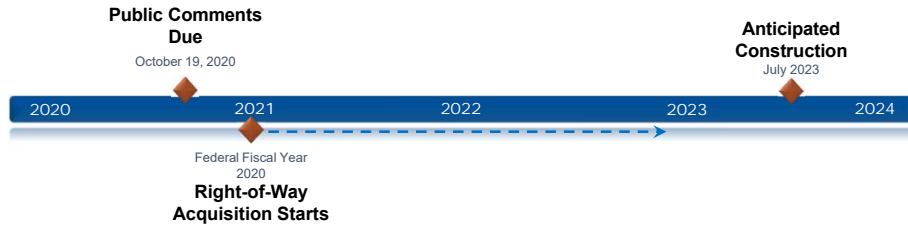
At this time, construction is anticipated to start in July of 2023. The actual start date is dependent on several factors, including the availability of funds, but right now the project appears to be on schedule.

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-82 will remain open throughout the entire construction process to accommodate local, regional, and recreational travelers.

Access to all residences, businesses and the US Army Corps of Engineers property will be maintained throughout construction.

Next Steps/ Project Schedule



*Timeline represents the current anticipated schedule. Actual dates may be revised.

Next Step & Schedule:

This slide shows the next steps for the project. We ask that you submit your comments by **October 19th** 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 later this year

Currently, construction of the project is anticipated to begin in July of 2023.



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

For more information on this project call (405) 521-3050



Please go to www.odot.org/SH82/Sequoyah 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.