AASHTO
AASHTO INNOVATION INITIATIVE

AASHTO Innovation Initiative

[Proposed] Nomination of Innovation Ready for Implementation

Sponsor

Nominations must be submitted by an AASHTO member DOT willing to help promote the innovation. If selected, the sponsoring DOT will be asked to promote the innovation to other states by participating on a Lead States Team supported by the AASHTO Innovation Initiative.

1. Sponsoring DOT (State): Oklahoma DOT

2. Name and Title: Siv Sundaram, Process Improvement Engineer

Organization: Oklahoma Department of Transportation

Street Address: 200 NE 21st Street

City: Oklahoma City

State: Oklahoma

Zip Code: 73105

Email: ssundaram@odot.org

Phone: 405-522-3791

Fax: Click or tap here to enter text.

Innovation Description (10 points)

The term "innovation" may include processes, products, techniques, procedures, and practices.

3. Name of the innovation:

Reconnaissance Data and Concept Station in Project Initiation Process

4. Please describe the innovation.

Oklahoma Department of Transportation (ODOT) completes project initiation with a multi divisional team to establish the scope for projects in their 8 Year Construction Program. The team uses reconnaissance

data collect for the project area to identify project constraints and establish the scope and develop a preliminary footprint after a site visit. When ODOT started collecting recon data in 2007, the data was compiled in voluminous reports with aerial maps showing the recon limits which usually varied from 300 to 500 ft on either side of the centerline of the highway. The recon data collected included property ownership for existing and adjacent right-of-way, Indian and Tribal property, federal property, utilities and billboards, crash data, known historic and archeological properties, cemeteries, hazardous material sites, oil wells, abandoned coal mines, Critical habitats, jurisdictional waters and wetlands, census data, and traffic data and as-built plans. Later, ODOT started requiring geo referenced kmz files. During the pandemic, ODOT was able to continue the project initiation process using Google and the kmz files along with the recon data. In the last 3 years, ODOT has required UAV videography of the project site. This image helps the project initiation team have a good view of the project site in lieu of visiting the site or supplement the site visit. In addition, ODOT has started using Concept Station to develop 3 dimensional models of the proposed project in conjunction with the kmz files showing constraints from the recon data to establish the footprint used for environmental studies and right-of-way and utilities cost estimates. The use of Concept Station helps the team identify constraints and work around them with preliminary design which is carried onto the final design. Eventually, the preliminary design can be carried on to ORD for the design once the survey is available. Use of Concept Station along with the kmz files with recon data containing existing utility data help identify areas where Subsurface Utility Engineering (SUE) Level A or B will be needed to get more information on locations of high cost utility lines,

5. What is the existing baseline practice that the innovation intends to replace/improve?

The existing practice did not include preliminary design during project initiation. Preliminary right-of-way was established on historic data for typical projects. Designing around utilities and constraints happened later in project development making it longer to make design changes.

6. What problems associated with the baseline practice does the innovation propose to solve?

Using historic data to establish preliminary right-of-way didn't give accurate right-of-way or utility costs to do our budgets. Preliminary engineering to avoid constraints from recon data was delayed to 30% plans which added time and cost to make plan revisions after 30%. Utility conflicts were not identified until plans were at right-of-way submittal stage.

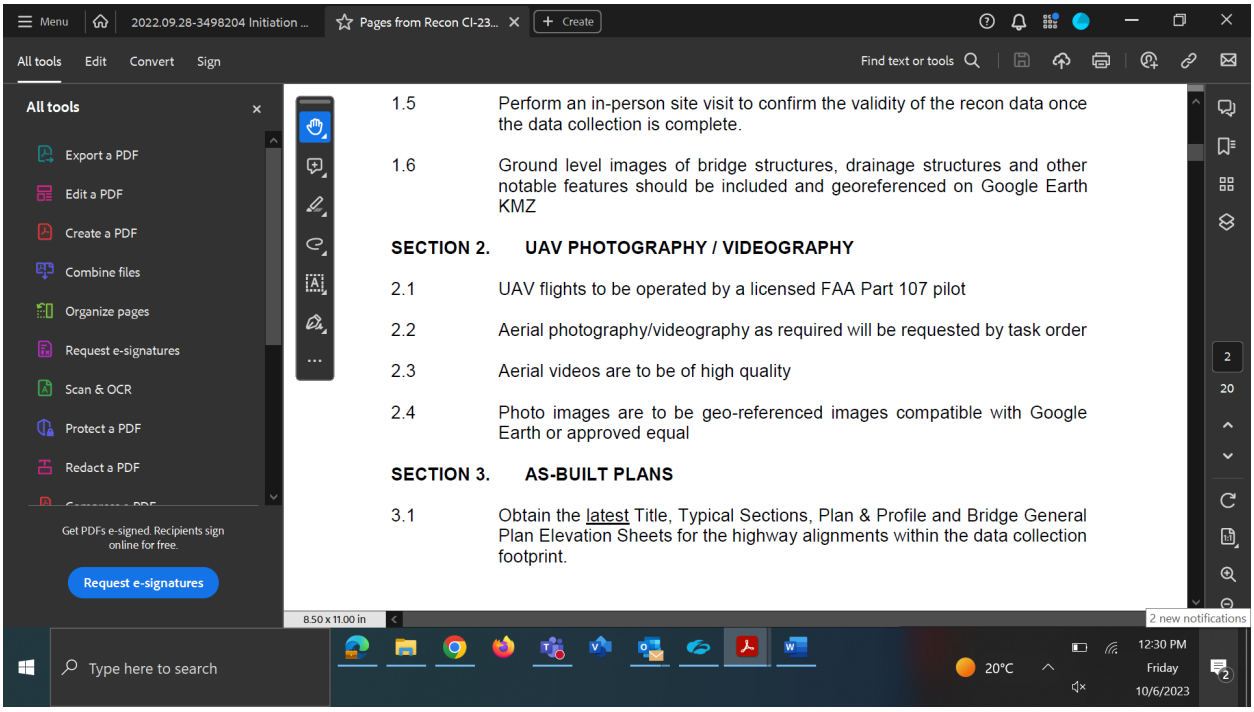
7. Briefly describe the history of its development.

In the beginning, the recon data was compiled in reports with aerial maps showing the recon limits which usually varied from 300 to 500 ft on either side of the centerline of the highway. Later, ODOT started requiring geo referenced kmz files. During the pandemic, ODOT was able to continue the project initiation process using Google and the kmz files along with the recon data. In the last 3 years, ODOT has required UAV videography of the project site. ODOT has started using Concept Station in the last year to develop 3 dimensional models of the proposed project in conjunction with the kmz files showing constraints from the recon data to establish the footprint used for environmental studies and right-of-way estimates.

8. What resources—such as technical specifications, training materials, and user guides—have you developed to assist with the deployment effort? If appropriate, please attach or provide weblinks to reports, videos, photographs, diagrams, or other images illustrating the appearance or functionality of the innovation (if electronic, please provide a separate file). Please list your attachments or weblinks here.

Reconnaissance Contract Scope

Attach photographs, diagrams, or other images here. If images are of larger resolution size, please provide as separate files.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Export a PDF
Edit a PDF
Create a PDF
Combine files
Organize pages
Request e-signatures
Scan & OCR
Protect a PDF
Redact a PDF
Get PDFs e-signed. Recipients sign online for free.
Request e-signatures
1.5 Perform an in-person site visit to confirm the validity of the recon data once the data collection is complete.
1.6 Ground level images of bridge structures, drainage structures and other notable features should be included and georeferenced on Google Earth KMZ
SECTION 2. UAV PHOTOGRAPHY / VIDEOGRAPHY
2.1 UAV flights to be operated by a licensed FAA Part 107 pilot
2.2 Aerial photography/videography as required will be requested by task order
2.3 Aerial videos are to be of high quality
2.4 Photo images are to be geo-referenced images compatible with Google Earth or approved equal
SECTION 3. AS-BUILT PLANS
3.1 Obtain the latest Title, Typical Sections, Plan & Profile and Bridge General Plan Elevation Sheets for the highway alignments within the data collection footprint.
8.50 x 11.00 in
2 new notifications
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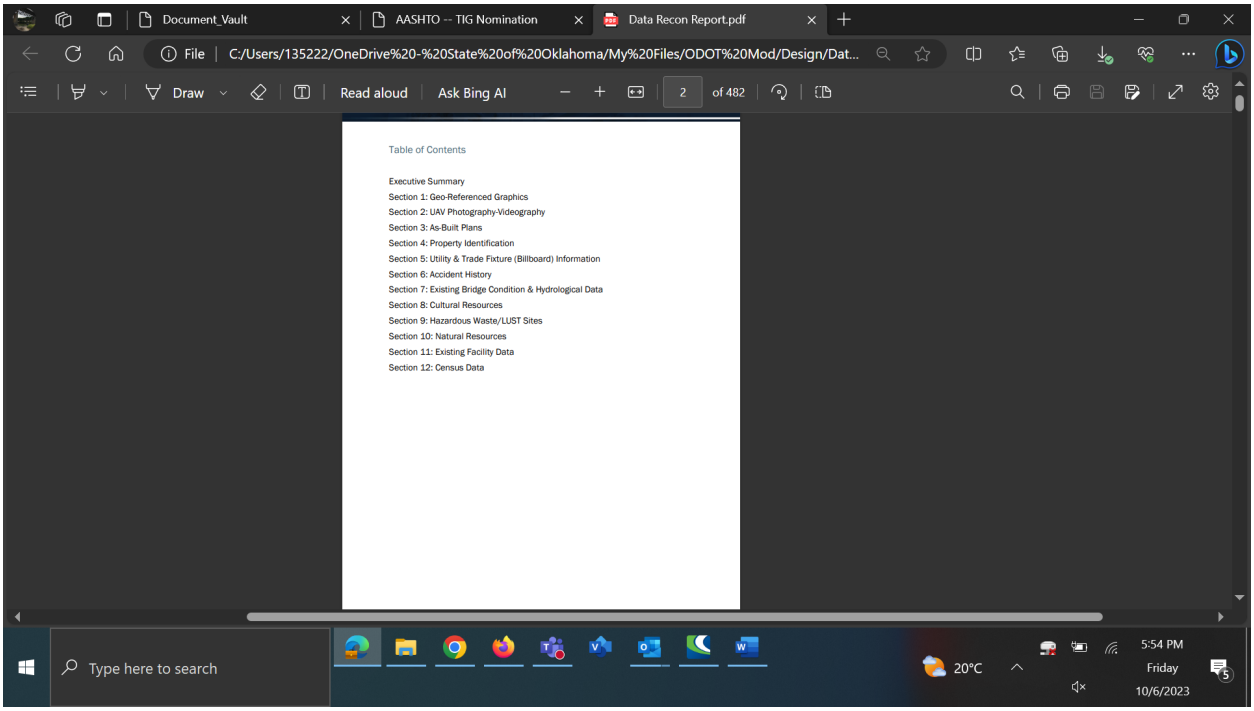
Document_Vault
AASHTO -- TIG Nomination
Data Recon Report.pdf
File
C:/Users/135222/OneDrive%20-%20State%20of%20Oklahoma/My%20Files/ODOT%20Mod/Design/Dat...
Draw
Read aloud
Ask Bing AI
2
of 482
Table of Contents
Executive Summary
Section 1: Geo-Referenced Graphics
Section 2: UAV Photography-Videography
Section 3: As-Built Plans
Section 4: Property Identification
Section 5: Utility & Trade Fixture (Billboard) Information
Section 6: Accident History
Section 7: Existing Bridge Condition & Hydrological Data
Section 8: Cultural Resources
Section 9: Hazardous Waste/LUST Sites
Section 10: Natural Resources
Section 11: Existing Facility Data
Section 12: Census Data
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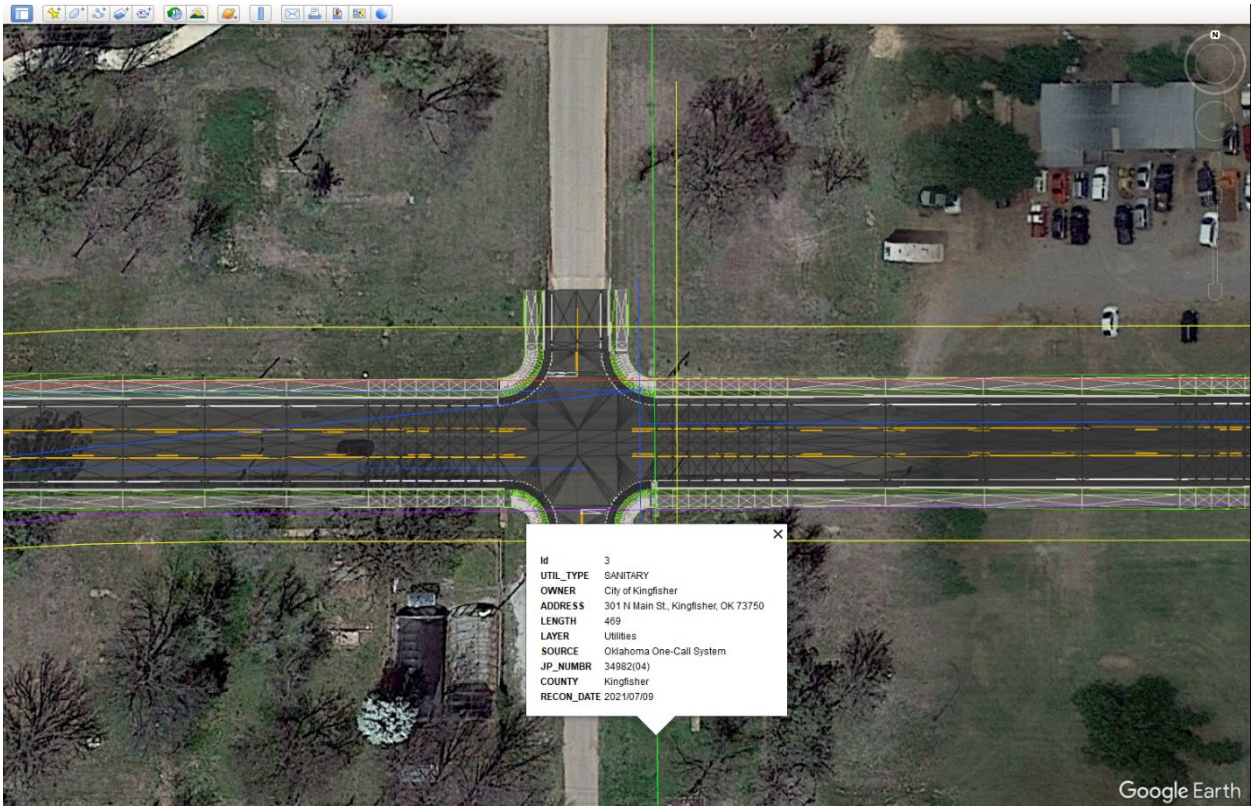
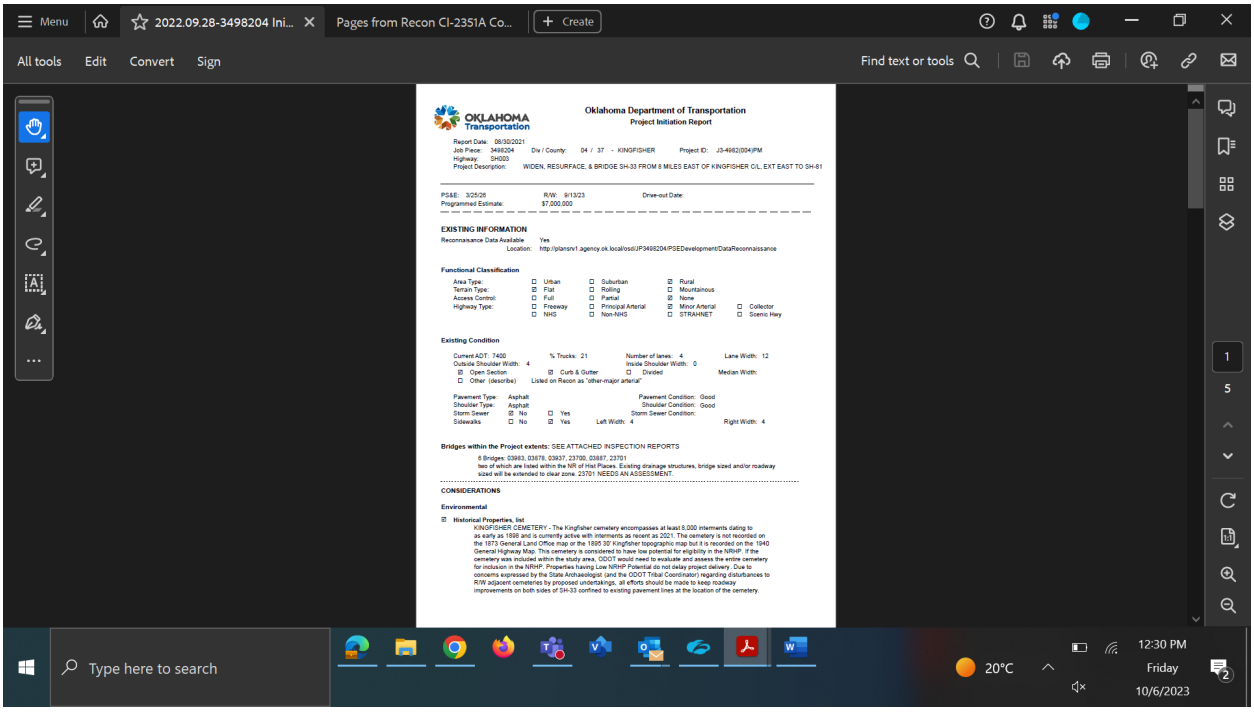

Id 3
UTIL_TYPE SANITARY
OWNER City of Kingfisher
ADDRESS 301 N Main St., Kingfisher, OK 73750
LENGTH 469
LAYER Utilities
SOURCE Oklahoma One-Call System
JP_NUMBR 34982(04)
COUNTY Kingfisher
RECON_DATE 2021/07/09
Google Earth


Bryce Culbert Bail Bonds
Strange Brew Coffee House & Tea Room
Stack Grill
Sweet Baby's
Pioneer Broadband Services/Video
Crandall & Sanders Plumbing
CENEX
Sandia Authentic Mexican
Valir Hospice
Kingfisher County Courthouse
Casey's
Southwinds Inspection
BancFirst
Google Earth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OKLAHOMA Transportation
Oklahoma Department of Transportation
Project Initiation Report
Report Date: 08/30/2021
Job Piece: 3498204
Div / County: 04 / 37 - KINGFISHER
Project ID: J3-4982(004)PM
Highway: SH033
Project Description: WIDEN, RESURFACE, & BRIDGE SH-33 FROM 8 MILES EAST OF KINGFISHER C/L, EXT EAST TO SH-81
PS&E: 3/25/26
R/W: 9/13/23
Drive-out Date:
Programmed Estimate: $7,000,000
EXISTING INFORMATION
Reconnaisance Data Available: Yes
Location: http://plansrv1.agency.ok.local/osd/JP3498204/PSEDevelopment/DataReconnaissance
Functional Classification
Area Type: Urban Suburban Rural
Terrain Type: Flat Rolling Mountainous
Access Control: Full Partial None
Highway Type: Freeway Principal Arterial Minor Arterial Collector
NHS Non-NHS STRAHNET Scenic Hwy
Existing Condition
Current ADT: 7400
% Trucks: 21
Number of lanes: 4
Lane Width: 12
Outside Shoulder Width: 4
Inside Shoulder Width: 0
Open Section
Curb & Gutter
Divided
Median Width:
Other (describe)
Listed on Recon as "other-major arterial"
Pavement Type: Asphalt
Pavement Condition: Good
Shoulder Type: Asphalt
Shoulder Condition: Good
Storm Sewer: No Yes
Storm Sewer Condition:
Sidewalks: No Yes
Left Width: 4
Right Width: 4
Bridges within the Project extents: SEE ATTACHED INSPECTION REPORTS
6 Bridges: 03803, 03878, 03937, 23700, 03887, 23701
two of which are listed within the NR of Hist Places. Existing drainage structures, bridge sized and/or roadway
sized will be extended to clear zone. 25701 NEEDS AN ASSESSMENT.
CONSIDERATIONS
Environmental
Historical Properties, list
KINGFISHER CEMETERY - The Kingfisher cemetery encompasses at least 8,000 interments dating to
as early as 1898 and is currently active with interments as recent as 2021. The cemetery is not recorded on
the 1873 General Land Office map or the 1895 30' Kingfisher topographic map but it is recorded on the 1940
General Highway Map. This cemetery is considered to have low potential for eligibility in the NRHP. If the
cemetery was included within the study area, ODOT would need to evaluate and assess the entire cemetery
for inclusion in the NRHP. Properties having Low NRHP Potential do not delay project delivery. Due to
concerns expressed by the State Archaeologist (and the ODOT Tribal Coordinator) regarding disturbances to
R/W adjacent cemeteries by proposed undertakings, all efforts should be made to keep roadway
improvements on both sides of SH-33 confined to existing pavement lines at the location of the cemetery.
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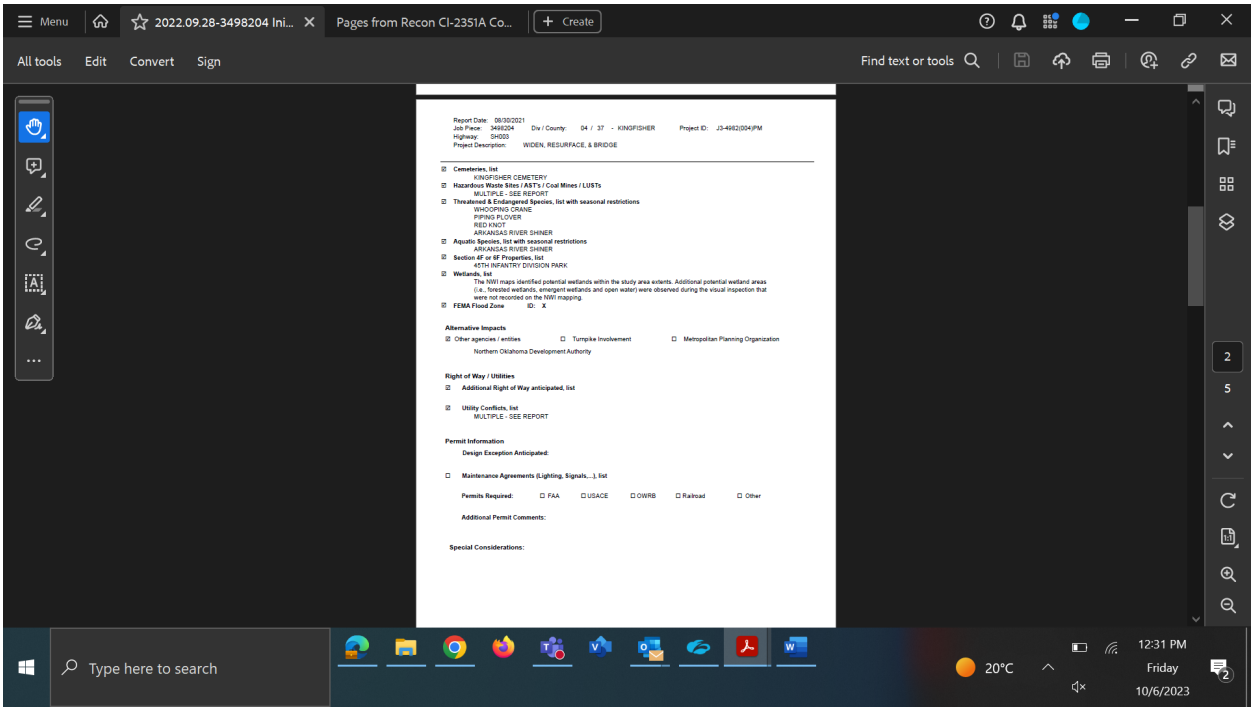
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Report Date: 08/30/2021
Job Piece: 3498204 Div / County: 04 / 37 - KINGFISHER Project ID: J3-4682(004)PM
Highway: SH33
Project Description: WIDEN, RESURFACE, & BRIDGE
Cemeteries, list
KINGFISHER CEMETERY
Hazardous Waste Sites / AST's / Coal Mines / LUSTs
MULTIPLE - SEE REPORT
Threatened & Endangered Species, list with seasonal restrictions
WHOOPING CRANE
PIPING PLOVER
RED KNOT
ARKANSAS RIVER SHINER
Aquatic Species, list with seasonal restrictions
ARKANSAS RIVER SHINER
Section 4f or 6f Properties, list
45TH INFANTRY DIVISION PARK
Wetlands, list
The NWI maps identified potential wetlands within the study area extents. Additional potential wetland areas (i.e., forested wetlands, emergent wetlands and open water) were observed during the visual inspection that were not recorded on the NWI mapping.
FEMA Flood Zone ID: X
Alternative Impacts
Other agencies / entities
Turnpike Involvement
Metropolitan Planning Organization
Northern Oklahoma Development Authority
Right of Way / Utilities
Additional Right of Way anticipated, list
Utility Conflicts, list
MULTIPLE - SEE REPORT
Permit Information
Design Exception Anticipated:
Maintenance Agreements (Lighting, Signals,...), list
Permits Required: FAA USACE OWRB Railroad Other
Additional Permit Comments:
Special Considerations:
2
5
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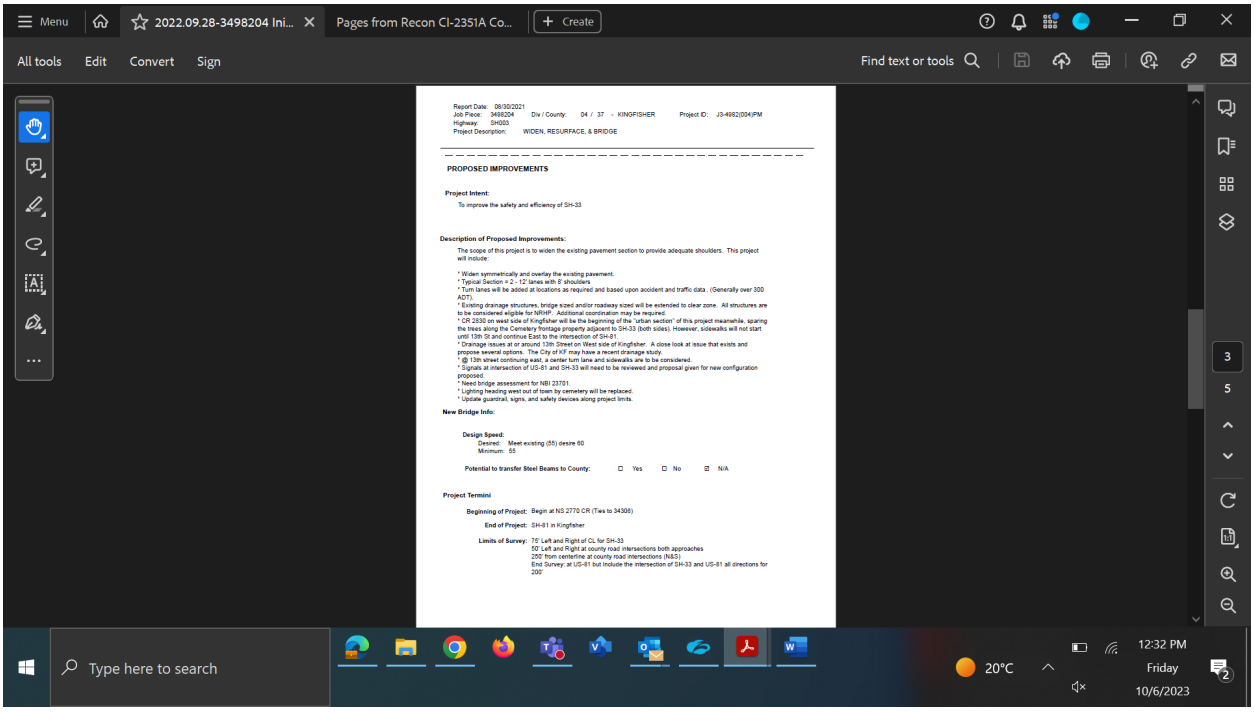
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Job Piece: 3498204 Div / County: 04 / 37 - KINGFISHER Project ID: J3-4682(004)PM
Highway: SH33
Project Description: WIDEN, RESURFACE, & BRIDGE
PROPOSED IMPROVEMENTS
Project Intent:
To improve the safety and efficiency of SH-33
Description of Proposed Improvements:
The scope of this project is to widen the existing pavement section to provide adequate shoulders. This project will include:
* Widen symmetrically and overlay the existing pavement.
* Typical Section = 2 - 12' lanes with 8' shoulders
* Turn lanes will be added at locations as required and based upon accident and traffic data . (Generally over 300 ADT).
* Existing drainage structures, bridge sized and/or roadway sized will be extended to clear zone. All structures are to be considered eligible for NRHP. Additional coordination may be required.
* CR 2830 on west side of Kingfisher will be the beginning of the "urban section" of this project meanwhile, sparing the trees along the Cemetery frontage property adjacent to SH-33 (both sides). However, sidewalks will not start until 13th St and continue East to the intersection of SH-81.
* Drainage issues at or around 13th Street on West side of Kingfisher. A close look at issue that exists and propose several options. The City of KF may have a recent drainage study.
* @ 13th street continuing east, a center turn lane and sidewalks are to be considered.
* Signals at intersection of US-81 and SH-33 will need to be reviewed and proposal given for new configuration proposed.
* Need bridge assessment for NBI 23701.
* Lighting heading west out of town by cemetery will be replaced.
* Update guardrail, signs, and safety devices along project limits.
New Bridge Info:
Design Speed:
Desired: Meet existing (55) desire 60
Minimum: 55
Potential to transfer Steel Beams to County: Yes No N/A
Project Termini
Beginning of Project: Begin at NS 2770 CR (Ties to 34306)
End of Project: SH-81 in Kingfisher
Limits of Survey: 75' Left and Right of CL for SH-33
50' Left and Right at county road intersections both approaches
250' from centerline at county road intersections (N&S)
End Survey: at US-81 but Include the intersection of SH-33 and US-81 all directions for 200'
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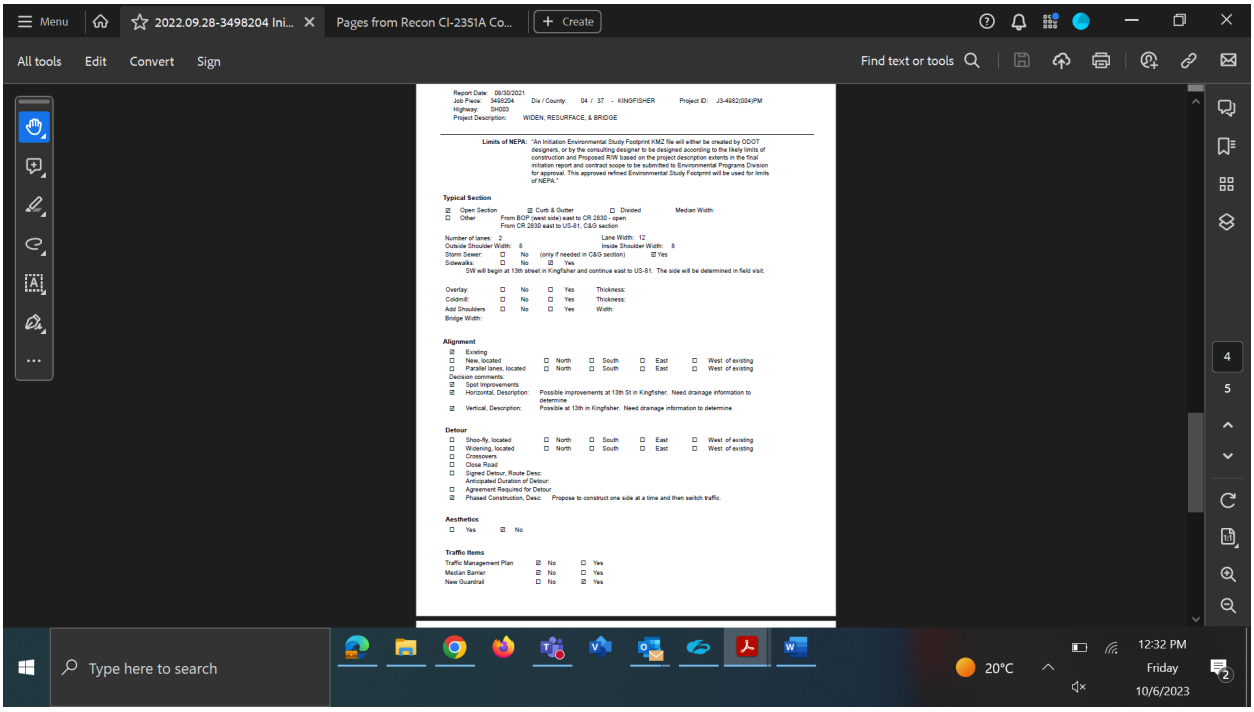
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Div / County: 04 / 37 - KINGFISHER
Project ID: J3-4682(004)PM
Highway: SH033
Project Description: WIDEN, RESURFACE, & BRIDGE
Limits of NEPA: "An Initiation Environmental Study Footprint KMZ file will either be created by ODOT designers, or by the consulting designer to be designed according to the likely limits of construction and Proposed R/W based on the project description extents in the final initiation report and contract scope to be submitted to Environmental Programs Division for approval. This approved refined Environmental Study Footprint will be used for limits of NEPA."
Typical Section
Open Section
Curb & Gutter
Divided
Median Width:
Other
From BOF (west side) east to CR 2830 - open
From CR 2830 east to US-81, C&G section
Number of lanes: 2
Lane Width: 12
Outside Shoulder Width: 8
Inside Shoulder Width: 8
Storm Sewer:
No
(only if needed in C&G section)
Yes
Sidewalks:
No
Yes
SW will begin at 13th street in Kingfisher and continue east to US-81. The side will be determined in field visit.
Overlay:
No
Yes
Thickness:
Coldmill:
No
Yes
Thickness:
Add Shoulders
No
Yes
Width:
Bridge Width:
Alignment
Existing
New, located
North
South
East
West of existing
Parallel lanes, located
North
South
East
West of existing
Decision comments:
Spot Improvements
Horizontal, Description:
Possible improvements at 13th St in Kingfisher. Need drainage information to determine
Vertical, Description:
Possible at 13th in Kingfisher. Need drainage information to determine
Detour
Shoo-fly, located
North
South
East
West of existing
Widening, located
North
South
East
West of existing
Crossovers
Close Road
Signed Detour, Route Desc:
Anticipated Duration of Detour:
Agreement Required for Detour
Phased Construction, Desc:
Propose to construct one side at a time and then switch traffic.
Aesthetics
Yes
No
Traffic Items
Traffic Management Plan
No
Yes
Median Barrier
No
Yes
New Guardrail
No
Yes
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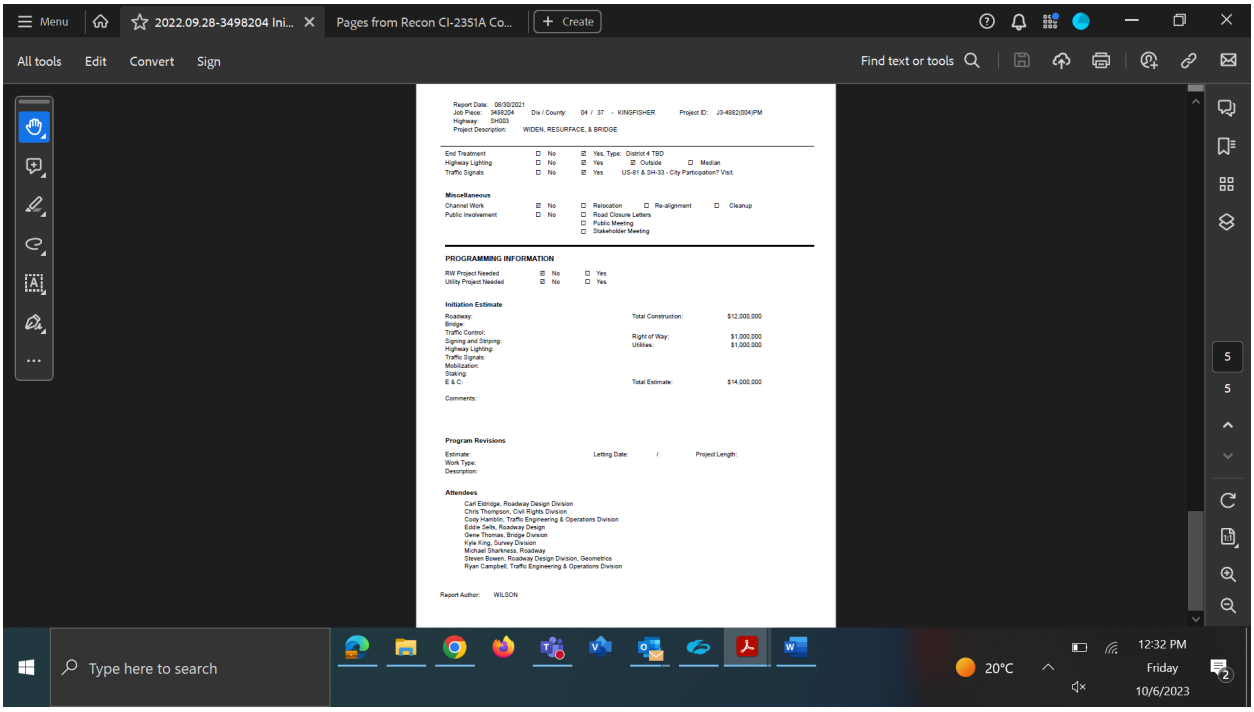
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Highway: SH033
Project Description: WIDEN, RESURFACE, & BRIDGE
End Treatment ☐ No ☑ Yes, Type: District 4 TBD
Highway Lighting ☐ No ☑ Yes ☑ Outside ☐ Median
Traffic Signals ☐ No ☑ Yes US-81 & SH-33 - City Participation? Visit.
Miscellaneous
Channel Work ☑ No ☐ Relocation ☐ Re-alignment ☐ Cleanup
Public Involvement ☐ No ☐ Road Closure Letters
☐ Public Meeting
☐ Stakeholder Meeting
PROGRAMMING INFORMATION
RW Project Needed ☑ No ☐ Yes
Utility Project Needed ☑ No ☐ Yes
Initiation Estimate
Roadway:
Bridge:
Traffic Control:
Signing and Striping:
Highway Lighting:
Traffic Signals:
Mobilization:
Staking:
E & C:
Total Construction: $12,000,000
Right of Way: $1,000,000
Utilities: $1,000,000
Total Estimate: $14,000,000
Comments:
Program Revisions
Estimate:
Work Type:
Description:
Letting Date: /
Project Length:
Attendees
Carl Eldridge, Roadway Design Division
Chris Thompson, Civil Rights Division
Cody Hamblin, Traffic Engineering & Operations Division
Eddie Sells, Roadway Design
Gene Thomas, Bridge Division
Kyle King, Survey Division
Michael Sharkness, Roadway
Steven Bowen, Roadway Design Division, Geometrics
Ryan Campbell, Traffic Engineering & Operations Division
Report Author: WILSON
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State of Development (40 points)

Innovations must be successfully deployed in at least one State DOT. The AII selection process will favor innovations that have advanced beyond the research stage, at least to the pilot deployment stage, and preferably into routine use.

9. How ready is this innovation for implementation in an operational environment? Please select from the following options. Please describe.

☐ Prototype is fully functional and yet to be piloted

☐ Prototype has been piloted successfully in an operational environment

☒ Technology has been deployed multiple times in an operational environment

☒ Technology is ready for full-scale implementation

The recon data collection is fully functional. The Concept Station has been implemented on several projects and is evolving.

10. What additional development is necessary to enable implementation of the innovation for routine use?

More experience is needed on concept station.

11. Are other organizations using, currently developing, or have they shown interest in this innovation or of similar technology?? ☐☐ Yes ☐☒ No

If so, please list organization names and contacts. Please identify the source of this information.

Organization	Name	Phone	Email
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Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

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Potential Payoff (30 points)

Payoff is defined as the combination of broad applicability and significant benefit or advantage over baseline practice .

12. How does the innovation meet customer or stakeholder needs in your State DOT or other organizations that have used it?

It helps us identify and work around project constraints early in project development and plan our budget better to deliver the construction program with more accurate cost estimates.

13. Identify the top three benefit types your DOT has realized from using this innovation. Describe the type and scale of benefits of using this innovation over baseline practice. Provide additional information, if available, using quantitative metrics, to describe the benefits.

Benefit Types	Please describe:
Organizational Efficiency	Identifying constraints and designing them early in project development helps save time and cost.
Environmental Benefits	Environmental impacts can be minimized with early identification and design.
Shorter Schedule	Identifying and designing around constraints early in project development avoids redesign later on.

Provide any additional description, if necessary:

Click or tap here to enter text.

14 How broadly might this innovation be deployed for other applications. in the transportation industry (including other disciplines of a DOT, other transportation modes, and private industry)?

All states can use it as the recon data collection is collecting readily available data. Compiling it and using it early in the process is the key. Concept station for preliminary design and the ability to go back and forth between that and kmz files and ORD can be done with available tools for most states.

Market Readiness (20 points)

The AII selection process will favor innovations that can be adopted with a reasonable amount of effort and cost, commensurate with the payoff potential.

15. What specific actions would another organization need to take along each of the following dimensions to adopt this innovation?

Check boxes that apply	Dimensions	Please describe:
☐	Gaining executive leadership support	Click or tap here to enter text.
☒	Communicating benefits	Getting everyone involved educated in the benefits
☐	Overcoming funding constraints	Click or tap here to enter text.
☐	Acquiring in-house capabilities	Click or tap here to enter text.
☐	Addressing legal issues (if applicable) (e.g., liability and intellectual property)	Click or tap here to enter text.
☐	Resolving conflicts with existing national/state regulations and standards	Click or tap here to enter text.
☐	Other challenges	Click or tap here to enter text.

16. Please provide details of cost, effort, and length of time expended to deploy the innovation in your organization.

Cost: $40,000 for initial recon data and video and additional $10,000 per additional mile.

Level of Effort: Our consultants do it and it is a 30 day turnaround in most cases.

Time: 30 days

17. To what extent might implementation of this innovation require the involvement of third parties, including vendors, contractors, and consultants? If so, please describe. List the type of expertise required for implementation.

Our consultants collect the recon data. Project initiation and concept station is done inhouse.

OKLAHOMA DEPARTMENT OF TRANSPORTATION
CONTRACT IDENTIFICATION NO. 2351A
ATTACHMENT A
SCOPE OF WORK

SECTION 1. Geo-Referenced Graphics

1.1 Create a location map using ODOT County/City Maps from the ODOT Website: http://okdot.maps.arcgis.com/home/index.html. The location map shall have a North Arrow and have the Project Location Circled. The map shall be to a 1"=2 miles scale when printed on an 8.5"x11" sheet. The location maps need not include the entire County, but should include a sufficient amount of the surrounding area to allow the location to be easily identified within the County. Include EW and NS Section Line numbers as designated in the ODOT maps (not Google maps) and Section, Township and Range information on the maps. The Township and Range can be shown on the edges.

1.2 Create a 1-Meter GSD Aerial/Satellite Ortho Imagery of the data collection footprint.

If current 1-Meter GSD Imagery is not available through typical sources, acceptable imagery may be found at the Center of Spatial Analysis Website (http://www.csa.ou.edu) under the OK Data Warehouse tab. Download the 2010 NAIP Digital Orthophoto Mosaic (Sid file format) for the appropriate county.

Aerial shall be to a 1 inch=400 ft scale when printed on a 11"x17" sheet (a scale of 1 inch=200 ft may be used for in-town sections) with Section Line, State Highway and County Section Line Road Numbers, Township and Range, North Arrow, Scale, Bridge NBI numbers and Dimensions of the data collection footprint. County, Project Number, and State Highway number shall be shown in a box at the bottom right hand corner. The maps need to run either south to north or west to east.

In addition show the existing roadway profile on the same sheet as the plan view. The vertical scale shall be at a 1:10 exaggeration (1"=40 ft scale). The existing profile should be obtained from the latest set of as-built plans (Section 2) or USGS Maps (1.3) and field verified.

Provide the existing vertical curve information (k values) and the horizontal curve information (degree of curve, superelevation, etc.), and provide the design speeds the existing vertical curves meet under both the 3R and 4R criteria in the Roadway Design Manual or latest AASHTO Policy on Geometric Design of Highways and Streets.

Create GIS shapefiles generated in USA Contiguous Albers Equal Area Conic (NAD83) or NAD83 UTM Zone.

Create an Adobe PDF Version which can be printed on 11 "x17" paper. The file shall be sized for 11 "x17" prints with a 400:1 scale.

1.3 Create a USGS Map of the data collection footprint. The map shall be to the same scale as the Aerial map (1 inch= 400 ft or 1”=200’ when printed on an 11”x17” sheet). Show contour interval ie: 10’, 20’

Refer to the OK Data Warehouse tab at the Center of Spatial Analysis Website (www.csa.ou.edu). Download the USGS Topographical Quad Map, UTM DRG files.

1.4 Create a State Highway detour map showing various detour alternatives with travel miles for each alternative for the project in case the road needs to be closed during construction. The travel miles will be the miles traveled on the state highway detour from one end of the project to the other. This can be shown on a State Highway map which would cover multiple counties. For projects close to the state border, the detour map may need to include the adjacent state if the best state highway detour is through that state.

1.5 Perform an in-person site visit to confirm the validity of the recon data once the data collection is complete.

1.6 Ground level images of bridge structures, drainage structures and other notable features should be included and georeferenced on Google Earth KMZ

SECTION 2. UAV PHOTOGRAPHY / VIDEOGRAPHY

2.1 UAV flights to be operated by a licensed FAA Part 107 pilot

2.2 Aerial photography/videography as required will be requested by task order

2.3 Aerial videos are to be of high quality

2.4 Photo images are to be geo-referenced images compatible with Google Earth or approved equal

SECTION 3. AS-BUILT PLANS

3.1 Obtain the latest Title, Typical Sections, Plan & Profile and Bridge General Plan Elevation Sheets for the highway alignments within the data collection footprint.

The as-built plans are available in the ODOT Office Services Division at https://oklahoma.gov/odot/about/contact-us/divisions/office-services-division/plans-library.html. Verify that it is the latest as-builts. Bridges and structures that have been modified, in any way, may require multiple sets of General Plan and Elevation Sheets for complete data collection.

3.2 Verification of existing conditions when as-built plans do not exist or do not represent the existing condition is expected. Use of UAV data, USGS LiDar information or other methods to approximately determine a profile along with geometric data is expected.

SECTION 4. PROPERTY IDENTIFICATION

Within the data collection footprint, identify the following properties and the general location of their boundaries:

4.1 Property Ownership

4.1.1 Property Card for each property ownership.

4.1.2 Legal Description of the property boundaries (for locating property boundaries).

The following procedure shall be used:

4.1.1.1 Obtain the "Property Card" through one of the commercially available websites. This will require a reimbursable license fee.

4.1.1.2 If the full legal description is not included on the Property Card, visit the Assessor's Office in the appropriate County Courthouse for this information.

4.1.1.3 If the full legal description is not included in the roles at the Assessors' Office, note the Deed Book and Deed Page and visit the County Clerk in the appropriate County Courthouse to obtain the full legal description from the actual Deed.

4.2 Indian & Tribal Ownership

Trust Land within any particular county will generally not have any recorded documents at the courthouse. All documents affecting trust property will be recorded with the agency of the Bureau of Indian Affairs (BIA) overseeing that property. All letters sent to the BIA should be specifically addressed to the Superintendent of the Agency with which you are corresponding.

Ownership questions must be directed to the local BIA Office. Once determination that the property is trust land you can request an ownership report, such as a "Title Status Report" (TSR) from the BIA. This informs you

if the land is a tribal or allottee tract. This information is sometimes available from the Tribe, depending on which Tribe is involved.

Specify whether the tribal property is tribal trust land, individual trust land, jointly held trust land, or fee lands that are former allotments (not in trust), or tribally owned non-trust land.

Type of land	How this may appear in property owner list or TSRs	BIA Involvement
Tribal trust land	"United States of America in Trust for Delaware Nation" "BIA in trust for Peoria Tribe"	Yes
Individual trust land	USA trust (TSR report will have a list of property owners and their percentage of interest)	Yes
Jointly held trust land (e.g., KCA, WCD)	"Kiowa Comanche and Apache Tribes c/o BIA" "Indian land"	Yes
Former allotments, not in trust (fee land)	Property owner's name	No
Tribally owned non-trust land (fee land)	Wichita and Affiliated Tribes	No

4.3 Identify any Federal Properties and Easements within the data collection footprint.

The properties owned by Federal Government are shown as "USA" ownership on the property cards. Identify the federal agency which owns the property. The following websites may be of use:

- The USGS's NHSS (Natural Hazards Support System) has a Federal Lands Layer that has all federal lands owned or managed by a Federal Agency mapped at: https://www.usgs.gov/news/mapping-public-lands-united-states.
- The USDA / NRCS easements can be found at: http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/dma/?&cid=stelprdb1043930.

4.4 Identify any Wetland Restoration Program (WRP) Sites within the data collection footprint.

This information can be obtained in GIS format from the local NRCS office via phone at (405) 742-1236 or email.

4.5 Public parks and recreational areas within the data collection footprint. Specifically identify any parks or recreational areas which have used Land and Water Conservation (LWCF). The acquisition of these properties will require replacement in kind under the Section 6(f) process.

For information regarding the public parks and Section 6(f) properties, contact the Director of the Division of Research and Development of the Oklahoma Department of Tourism by email and include the email response in the recon report. Additional information can be found at their website: www.travelok.com. In addition, property ownership cards would identify properties owned by Cities. Check to see if it is a public park.

4.6 Identify any wildlife and waterfowl refuges within the data collection footprint.

For information regarding Wildlife Refuges and Management Areas refer to the Oklahoma Department of Wildlife Conservation Website: www.wildlifedepartment.com.

4.7 Identify any cemeteries within the data collection footprint.

4.8 Identify any Airports located within 4 miles of the data collection footprint. Identification should include the name and location of all public or private airports.

This information can be obtained from the Oklahoma Aeronautics Commission (OAC) website: www.aeronautics.state.ok.us.

4.9 Identify any active or abandoned Rail Roads within the data collection footprint

Identify the owner of the Rail Road. Identify any Military Properties within the data collection footprint.

4.10 Identify any Oklahoma Turnpike Authority (OTA) Properties. This applies for projects involving the Turnpike.

SECTION 5. UTILITY & TRADEFIXTURE (BILLBOARD) INFORMATION

5.1 Utilities

For each utility located within the data collection footprint, identify the following information:

1. Type of Utility
2. Name and Address of Utility Owner
3. Name and Phone Number of Contact Person

4. Product Utility is Carrying
5. Size and Material of Utility (If applicable)
6. General Location of Utility (Crossing locations, parallel left or right, appearance of within or outside of existing right-of-way, approximate offsets, etc.)

This information may be obtained by the following general procedure: Contact the Oklahoma One-Call System (Call OKIE) for a list of utilities (including type and contact information) located within all quarter sections involved with the study area. Contact each listed utility owner for approximate location of the utility within the quarter section. This information should be available on the utility owner's atlas sheets (Use only readily available sheets. DO NOT ask the City or County to prepare these if they don't have them readily available). Contact the Rural Water District in the appropriate county and the City Public Works Director for information regarding any utilities they may have within the study area. Look up the readily available utility permit files located in the field division. Request permitted information for a utility attached to a bridge from the Bridge Division. Conduct a site visit to visually verify the location of all TUG Pedestals, valves, meters, markers, signs, man-hole covers, etc. within the study area. NOTE: The intent is to identify any utilities which would affect the project cost at a recon level and survey level utility identification is not required.

5.2 Trade Fixture (Billboard) Ownership

Request the following information from Right-of-Way & Utilities Division's Outdoor Advertising Branch. Include the location map (Section 1.1) and an aerial with the study limits. Allow 30 days to obtain the information.

- Whether or not the highway is on a regulated route
- If regulated, request the trade fixture (billboard) permit information for each legal trade fixture (billboard) or information relative to its illegal status.

SECTION 6. ACCIDENT HISTORY

6.1 Obtain Complete Accident History for the extents of the data collection footprint.

Information will be for accidents occurring within the data collection footprint over the last 10 years. The Accident History is available through online access or by submitting a request form to the Collision Analysis and Safety Branch of the ODOT Traffic Engineering Division through the Project Management Division with a Location Map. Allow 30 days for this information.

SECTION 7. EXISTING BRIDGE CONDITION AND HYDROLOGICAL DATA

7.1 Obtain the most current copy of the Structure Inventory & Appraisal (SI&A) sheet for each bridge within the study area. This information can be obtained from the Bridge Division through the Project Management Division. Allow 60 days to obtain this information.

7.2 Obtain Drainage Areas associated with each bridge within the data collection footprint.

1. Total Area
2. NRCS Controlled Area
3. Effective Area

7.3 Provide FEMA FIRMette for all bridges within the data collection footprint.

FIRMettes may be found at the FEMA Map Service Center at www.msc.fema.gov.

7.4 Identification and location of NRCS controlled structures within the Drainage Area.

7.5 If there is a USGS Gauge on the existing bridge, include the summary sheet of the data from the USGS Gauge. This is available on the USGS website.

7.6 Identify areas of flood storage from USGS maps.

SECTION 8. CULTURAL RESOURCES

Request the following cultural resource information located within the data collection footprint from ODOT Cultural Resource Specialist. Include the location map (Section 1.1), an aerial with the data collection limits, the shape files for the data collection limits, and a copy of the SI & A sheet or the bridge information available at: http://okdot.maps.arcgis.com/apps/Viewer/index.html?appid=e8fd96f27e7b4cc9814719235eabd37d for all bridge structures within the recon area. The latest request form is available at http://www.odotculturalresources.info/documents-and-toolkits.html.

Allow 30 days to obtain the information for projects less than 1 mile long and 60 days for longer projects.

8.1 Historic Properties/Structures

1. Properties and districts listed in the National Register of Historic Places (NRHP).
2. Properties and districts eligible to be listed in the NRHP.
3. Segments of Route 66 eligible to be listed in the NRHP.

4. Historic Bridges listed in the NRHP.
5. Historic Bridges eligible to be listed in the NRHP.

8.2 Archaeological Sites

1. Prehistoric and historic archaeological sites recorded with the Office of the Oklahoma Archaeological Survey (OAS).
2. Early historic "GLO" sites recorded with the OAS.
3. Previous archaeological/cultural resources surveys within the data collection footprint.

8.3 Cemeteries

Note: All cultural resources or historic properties identified during this process shall be shown on study maps for internal ODOT review only. The public disclosure of the location of some types of resources is a violation of Federal laws and regulations.

SECTION 9. HAZARDOUS WASTE

9.1 Procure a commercially available electronic database report of potential hazardous materials sites located in the proximity of the data collection footprint(using ASTM E1527-13 radius guidelines).

9.2 Identify oil wells located within 1/8th of a mile of the data collection footprint.

This consists of a file review from the Oklahoma Corporation Commission (contact the appropriate District Office) for any past or present Oil and Gas activity – including salt water disposal. This includes any information regarding the location of drilled wells, records of completion and plugging, field inspection reports, reported leaks, spills or violations of any kind.

9.3 Identify any current and abandoned coal mines within the data collection footprint.

This information can be found from historic aerial photos and topographical maps, as well as ODOT's Map and Data Portal: (https://okdot.maps.arcgis.com/apps/PublicGallery/index.html?appid=e9f6e5f9fe474cfcae51b665b7585161

SECTION 10. NATURAL RESOURCES

10.1 Identify any federally-listed endangered, threatened or candidate species located within the data collection footprint and any Designated Critical Habitats for these species.

Follow the project review process outlined by the USFWS at: http://www.fws.gov/southwest/es/oklahoma/default.htm.

Click on Project Reviews and "What Species Occur in My Project Area" and use the Initial Project Scoping to identify the species in the data collection footprint.

Review of federally designated critical habitat maps relative to the project data collection footprint at: http://criticalhabitat.fws.gov/crithab/.

Review of federally listed and candidate aquatic species and aquatic dependent species watersheds and occupied water bodies of Oklahoma at: http://www.fws.gov/southwest/es/oklahoma/add_docs.htm.

Review of Oklahoma Natural Heritage Inventory rare species database for any records of federally listed or candidate species **ONLY** at: http://www.oknaturalheritage.ou.edu.

10.2 Identify any potential jurisdictional wetlands located within the data collection footprint.

Review of the National Wetlands Inventory (NWI) maps at: http://www.fws.gov/wetlands/ and USGS 7.5 minute topographic quadrangle maps of the data collection footprint.

Review of the Natural Resources Conservation Service (NRCS) soil survey maps for the county in which the proposed project will occur: http://websoilsurvey.nrcs.usda.gov/app/.

Review of hydric soils lists published by the NRCS for the county in which the proposed project will occur.

A natural resource specialist shall perform a visual verification of the NWI sites identification of any other potential jurisdictional wetlands located within the data collection footprint.

10.3 Create a soils map for the footprint area using the information available from the NRCS soil survey website at http://websoilsurvey.nrcs.usda.gov/app/.

10.4 Identify any Critical Resource Waters, Section 10 Waters, Scenic Rivers & Arbuckle Simpson Aquifer (not any other aquifer) and associated streams located within the data collection footprint.

For Critical Resource Waters: Refer to USACE website. http://www.swt.usace.army.mil/Portals/41/docs/missions/regulatory/GeneralPermits/Encl_3_to_9-pdf.pdf.

For Section 10 Waters: Refer to USACE website:
http://www.swt.usace.army.mil/Missions/Regulatory/Section10Waters.aspx.

For Oklahoma Scenic Rivers, refer to the Oklahoma Scenic River Act.

For Arbuckle Simpson Aquifer, refer to the Oklahoma Water Resources Board Website:
www.owrb.ok.gov/studies/groundwater/arbuckle_simpson/arbuckle_study.php.

10.5 Identify any Oklahoma's 2010 303(d) list of impaired waters. Include list of impairments for each listed stream. In addition, identify if the data collection footprint falls within any Municipal Separate Storm Sewer System (MS4) areas or any areas with special Total Maximum Daily Load (TMDL) Requirements and the cause for the TMDL.

The 303(d) list and impairments and the TMDL information can be obtained from the Oklahoma Department of Environmental Quality's (ODEQ) Integrated Water Quality report located at:
http://www.deq.state.ok.us/wqdnew/305b_303d/.

The MS4 information can be obtained from the ODEQ's Storm Water Program Information located at:
http://www.deq.state.ok.us/WQDNew/stormwater/.

10.6 Identify any Oklahoma Sensitive Waters and Watersheds Harboring Endangered and Threatened Species and Their Critical Habitat of Concern required for the Storm Water Permit Conditions. This information can be obtained from Attachment A2 of the GENERAL PERMIT OKR10 - FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA available at http://www.deq.state.ok.us/wqdnew/stormwater/construction/okr10_final_permit_13_sep_2007.pdf.

SECTION 11. EXISTING FACILITY DATA

11.1 Functional Classification and Roadway Characteristics

1. Area Type: Urban, Suburban or Rural
2. Terrain Type:Flat, Rolling or Mountainous
3. Access Control: Full, Partial or None
4. Highway Type: Freeway, Principal/Minor Arterial, or Collector
   NHS, Non-NHS, STRAHNET &/or Scenic Highway
   Number and Width of Lanes
5. Inside and Outside Shoulder Widths
6. Open Section, Curb & Gutter, Divided (with median width) or a description of any other type.
7. Pavement & Shoulder Material Type and Condition

8. Sidewalks Identification and Width

This information can be obtained through the Inventory System with the appropriate business layer. This is available at: http://okdot.maps.arcgis.com/apps/Viewer/index.html?appid=e8fd96f27e7b4cc9814719235eabd37d.
Note that when printing the report, do a print preview and print only the selected page. Otherwise it will print the report for the whole highway.

11.2 Traffic Data within the data collection footprint:

1. Current Average Annual Daily Traffic (AADT)
2. Projected AADT (20 years from known Let Date or 30 years from present)
3. K (DHV/ADT- Two Way)
4. D (Directional Distribution)
5. Percentage of Truck Traffic – T(DHV), T(ADT), and T3 (3 or more Axle)

Request the Traffic Data from the ODOT Traffic Analyst of the Engineering Services Branch in the ODOT Strategic Asset and Performance Management Division. All requests need to be submitted through Project Management Division.

11.3 Alternative Agency Impacts associated with data collection footprint:

1. Identify all Metropolitan Planning Organizations (MPOs) within the data collection footprint:

   - Association of Central Oklahoma Governments (ACOG)
   - Indian Nation Council of Governments (INCOG)
   - Lawton Metropolitan Area Planning Commission (LMAPC)
   - Ft. Smith, Arkansas

2. Oklahoma Turnpike Authority – State whether the project involves any turnpike facilities.

3. Other Agencies – List other Agencies which may be affected by any action in the data collection area such as Federal property owners, Federal agencies with jurisdiction, etc.

SECTION 12. CENSUS DATA

12.1 Using the most current census data, general data will be collected in the data collection footprint to identify minority, low income, and limited English

proficiency (LEP) population areas to assist in identifying potential environmental justice concerns. This can be obtained at data.census.gov.

SECTION 13. REPORTS & DELIVERABLES

13.1 Prepare a PDF report in the following format. Provide electronic Dividers with Tabs for each section. The electronic report and files shall be delivered to the Project Management Division.

- Cover with Project Information – County, Job Piece, Project Description
- Table of Contents
- Executive Summary – List of all issues identified within the data collection footprint (Maximum 2 pages)

Section 1. Maps for Geo Referenced Graphics

1. County Map (sized for a single 8.5x11" print) created in Section 1.1. The sheet will include a graphical scale and a North Arrow.

2. Composite Map sized consisting of the Aerial Photograph with Vertical Profile (This will be similar to a Plan and Profile Sheet) created in Section 1.2. The file shall be sized for 11"x17" prints and should include a graphical scale, legends and a North Arrow on all sheets. Circle and identify bridge locations within the data collection footprint by their NBI numbers. This composite map shall contain the following information gathered in Sections 3-11 with appropriate legends.

    a. Property Ownership with approximate boundaries (Section 4)
    b. Indian and Tribal Lands (Section 4)
    c. Military Properties (Section 4)
    d. OTA Properties (Section 4)
    e. Federal Properties and Easements(Section 4)
    f. WRP Sites (Section 4)
    g. Parks Recreational Facilities(Section 4)
    h. Wildlife and waterfowl refuges (Section 4)
    i. Cemeteries (Section 4)
    j. Utilities & Billboards located within the data collection footprint (Section 5). Insets may be used to illustrate multiple utilities at a single location.
    k. NRCS Structures within the data collection footprint (Section 7)

l. Moderate or high potential historic sites, archeological sites and historic cemeteries (Section 8)
m. Hazardous Materials sites and oil wells within the data collection footprint (Section 9)
n. Designated critical habitat for any federally-listed endangered, threatened or candidate species (Section 10)
o. Potentially jurisdictional wetlands and waters which were field verified and identified (Section 10)

3. USGS Map created in Section 1.3. The file shall be sized for 11"x17" prints and will include a graphical scale and a North Arrow on all sheets. Show contour interval ie: 10', 20'

4. State highway detour map (11"x17" prints) created in section 1.3 The sheet will include a graphical scale and a North Arrow.

Section 3. As Built Plans

11"X17" Sheets of the As-Built plans as described in Section 3.

Section 4. Property Identification

a. List of Property Owners
b. Summary of Items found in Sections 4.3 through 4.11. Mention names of persons/Agencies contacted and mention when no sites are found. Include email correspondence with Department of Tourism for verification of Section 6(f) information
c. Property Cards
d. Title Status Report (TSR) from BIA

Section 5. Utility & Trade Fixture (Billboard) Information

For each utility located within the data collection footprint, identify the following information obtained in Section 5:

a. Type of Utility
b. Name and Address of Utility Owner
c. Name and Phone Number of Contact Person
d. Product Utility is Carrying
e. Size and Material of Utility (If applicable)
f. General Location of Utility (Crossing locations, parallel left or right, appearance of within or outside of existing right-of-way, approximate offsets, etc.)

For each trade fixture (billboard) located within the data collection footprint, include the information obtained from the Outdoor Advertising Branch

Section 6. Accident History

Provide transmittal memo or email from Traffic Engineering Division and the Accident History Provided

Section 7. Existing Bridge Conditions and Hydrologic Data

List the bridges located within the data collection footprint by NBI number and provide a summary of the drainage area.

Include SI&A sheet and FEMA maps for each bridge

Provide a USGS Map cropped to delineate drainage area for each bridge showing all calculated drainage areas and sized for 11”x17” prints. Show any NRCS structures within the Drainage Area.

Information on whether there is a USGS Gauge on the existing bridge and the summary USGS Gauge Data.

Section 8. Cultural Resources

Provide Cultural Resources Reconnaissance Review summary form and Maps provide by ODOT Cultural Resources Program.

Section 9. Hazardous Waste

Provide a summary of databases searched and agencies contacted and the findings. Provide the EDR Report in the electronic copy only. Do not include the report in the hard copies

Section 10. Natural Resources

Provide a listing of federally-listed endangered, threatened or candidate species located within the data collection footprint and maps (8.5” X 11”) of any Designated Critical Habitats for these species with the project area circled.

Provide a summary of any potential jurisdictional wetlands located within the study area and NWI maps (11” X17”) with the data collection footprint and the legend for the wetland types.

Provide soils maps (11” X 17”) with the data collection footprint shown and the legend for the soil types.

Provide a summary of any Critical Resource Waters, Section 10 Waters, & Scenic Rivers and mention whether the project is located in the Arbuckle Simpson Aquifer and associated streams.

Provide a summary of any Oklahoma's 2010 303(d) list of impaired waters within the data collection footprint. Include list of impairments for each listed stream. In addition, identify if the recon study limits fall within any Municipal Separate Storm Sewer System (MS4) areas or any areas with special Total Maximum Daily Load (TMDL) Requirements and the cause for the TMDL.

Section 11. Existing Facility Data

Provide a summary table of the Functional Classification and Roadway Characteristics identified in Section 11.1. Include printouts from the ODOT website for the sections within the recon data collection footprint.

Provide transmittal memo or email from the ODOT Traffic Analyst and the Traffic Data and maps provided (Section 11.2).

Provide a summary of any MPOs associated with the data collection footprint, whether the project involves any turnpike facilities and list of Agencies which may be affected by any action in the recon area.

Section 12. Census Data

Provide a summary of the census data with percentage of low income, minority population, and limited English proficiency (LEP) population for each block or tract in the reconnaissance area and a map showing the census blocks or tracts.

13.2 Provide an Acrobat pdf file of the complete report to Project Management Division. The pdf file shall have bookmarks for the different sections for easy navigation.

13.3 Provide a Micro-Station (V8) file, GIS shape files and Google Earth KMZ to Project Management Division which includes all data collected in this report. This includes:

A. Geo-Referenced satellite imagery of the composite map mentioned in Section 13.1. Use the Standards in Attachment A2 for the GIS Files.

B. The recon data will be placed on the NGS Oklahoma State Plane Coordinate System, NSD 83(HPGN), Lambert Projection, North or South Zone.

The Consultant is responsible for any translation required to convert non Microstation design files to Microstation format and submitting all translation files used during the conversion as part of the submittal. All translated design files shall conform to the applicable standards adopted by the Department for Design.

C. A Geo-referenced composite Google Earth KMZ which includes updated aerial imagery, location data identified in this report in accordance with Attachment A3.

ATTACHMENT A2
GIS Shapefile Data Submittal Standards

Data Collection Area

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
JP_NUMBR	TEXT	20	Project JP Number	25812(04)
PROJ_TYPE	TEXT	30	Type of Project	Bridge and Approaches
HIGHWAY	TEXT	16	Highway Number	US-62
COUNTY	TEXT	20	Project Location County	Muskogee
PROJ_DESC	TEXT	120	Project Description	US-62 AT CANE CREEK AND TRIBUTARY, 10.7 MILES NE OF OKMULGEE C/L
DISTRICT	TEXT	12	ODOT District Number	District 1
TSK_ORDER	TEXT	16	Engineering Contract Number and Task Order	1338 - TO 2
LAYER	TEXT	24	Layer Name for Conversion to CAD	Data Collection Area
SOURCE	TEXT	100	Brief Description of Source Data	Created from ODOT footprint
COORD_SYS	TEXT	50	XY Coordinate System of the Dataset	OK State Plane North NAD 1983 (2011)
RECON_AUTH	TEXT	50	Author of the Recon Report	Consultant Name
RECON_DATE	DATE	X	Date Dataset was Completed	9/30/2022

Parcel

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
PARCEL_NO	TEXT	30	Official Parcel ID Assigned By Assessor's Office	0000-04-12N-13W-2-815-00
OWNER	TEXT	40	Full Name Of Owner Shown On Property List	BELL, PAUL & KARLA REV TRUST
ADDRESS	TEXT	60	Parcel Address	808 FOX RUN TRAIL, EDMOND OK 73034
ADDR_OWNER	TEXT	60	Address Of Parcel Owner - Not Parcel Address	808 FOX RUN TRAIL, EDMOND OK 73034
LEGAL_DESC	TEXT	254	Legal Description Of Property	SW SW (LESS 27.83 AC TR & 3.38AC HWY ROW)
S_T_R	TEXT	16	Section / Township / Range Of Parcel	09-T02N-R16W
TRIBAL	TEXT	4	Yes Or No Answer Based On Tribal Ownership	YES/NO
ACRES	TEXT	10	Area of Property Shown On Property Card (Acres)	45 Acres
AREA_AC	FLOAT	8/2	Actual Calculated Area Of Parcel	45.35
LAST_NAME	TEXT	30	Owner's Last Name	JOHNSON
FIRST_NAME	TEXT	50	Owner's First Name(S)	DAVID V. & CLAUDIA M.
PROP_LINK	TEXT	150	Filename of the Property Card File (PDF)	0000-04-12N-13W-2-815-00.pdf
LAYER	TEXT	24	Layer Name for Conversion to CAD	Parcel
SOURCE	TEXT	100	Brief Description of Source Data	Muskogee County Assessor
JP_NUMBR	TEXT	20	Project JP Number	25812(04)
COUNTY	TEXT	20	Project Location County	Muskogee
RECON_DATE	DATE	X	Date Dataset was Completed	9/30/2022

Cemetery

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
NAME	TEXT	60	Cemetery Name	Memorial Cemetery
NOTES	TEXT	100	Additional Information	city-owned

Indian/Tribal Land

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
NAME	TEXT	60	Name of Tribe or Tribal Entity	Muskogee-Creek
NOTES	TEXT	100	Additional Information	non-TRUST land

Federal Property/Easement

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
NAME	TEXT	60	ID or Name of Property	Ouachita National Forest
NOTES	TEXT	100	Additional Information	park entrance sign within existing ROW boundary

Military Property

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
NAME	TEXT	60	Facility Name	Tinker Air Force Base
NOTES	TEXT	100	Additional Information	facility's fence is within data collection area

OTA Property				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
NAME	TEXT	60	Turnpike Name	Turner Turnpike
NOTES	TEXT	100	Additional Information	Interstate 44
Park/Recreation Facility				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
NAME	TEXT	60	Park or Facility Name	Natural Falls State Park
NOTES	TEXT	100	Additional Information	not LWCF

ACEP (formerly WRP) Site				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
NAME	TEXT	60	Site Name	SMITH-1
NOTES	TEXT	100	Additional Information	*optional site information*
Wildlife Refuge				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
NAME	TEXT	60	Refuge Name	Sequoah National Wildlife Refuge
NOTES	TEXT	100	Additional Information	on both sides of the highway
Cultural Resources Site (Moderate and High)				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
NRHP_POTEN	TEXT	50	NRHP Potential	High Potential
NAME	TEXT	60	Name of Archaelogical Site or Historic Building	Bridgeport Bridge (historic bridge)
NOTES	TEXT	50	Additional Information	historic bridge on US-281 over S. Canadian River
Designated Critical Habitat				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
NAME	TEXT	60	Species Name	Arkansas River shiner
NOTES	TEXT	100	Additional Information	critical habitat has been finalized by USFWS
Wetland (Field Verified)				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
CLASSIFICA	TEXT	50	Wetland Classification	Emergent
OBSRV_DATE	DATE	X	Field Visit Date	9/1/2022
NOTES	TEXT	100	Additional Information	visible from existing ROW boundary
ROW Boundary				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
JP_NUMBR	TEXT	20	Project JP Number	25812(04)
COUNTY	TEXT	20	Project Location County	Muskogee
HIGHWAY	TEXT	16	Highway Number or Section Line Road	US-62
WIDTH	FLOAT	6/2	Right of Way Width from Centerline	100
LAYER	TEXT	24	Layer Name for Conversion to CAD	ROW Boundary
SOURCE	TEXT	100	Brief Description of Source Data	ODOT Roadway Plans
RECON_DATE	DATE	X	Date Dataset was Completed	9/30/2022
Stream				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
CLASSIFICA	TEXT	50	Stream Classification	Perennial
NAME	TEXT	50	Stream Name	Dog Creek
OBSRV_DATE	DATE	X	Field Visit Date	9/1/2022
NOTES	TEXT	100	Additional Information	impaired stream
Utilities				
FIELD NAME	**TYPE**	**LENGTH/ PRECISION**	**DESCRIPTION OF INPUT**	**EXAMPLE INPUT AND FORMAT**
UTIL_TYPE	TEXT	30	Type of Utility	ELEC-GAS-WATER-COMMUNICATION-STORM-SANITARY
OWNER	TEXT	40	Full Name of Utility Owner	AEP-PSO

ADDRESS	TEXT	60	Mailing Address of the Utility Owner	216 E Sixth St., Tulsa, Oklahoma 74119
LENGTH	FLOAT	8/2	Length of Utility Line (feet)	231.55
LAYER	TEXT	24	Layer Name for Conversion to CAD	Utilities
SOURCE	TEXT	100	Brief Description of Source Data	GPS Survey
JP_NUMBR	TEXT	20	Project JP Number	25812(04)
COUNTY	TEXT	20	Project Location County	Muskogee
RECON_DATE	DATE	X	Date Dataset was Completed	9/30/2022

Billboard/Tradefixture

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
SIGN_FILE	LONG	10	ODOT Sign File Number	3018606
CLASSIFICA	TEXT	4	ODOT Sign Classification	CLSA
OWNER	TEXT	50	Sign Owner	ELITE MEDIA GROUP, LLC

NBI

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
NBI_NO	TEXT	5	NBI Number	13387
STR_NO	TEXT	12	Structure Number	6314 0571 X
SUFFICIENC	LONG	2	Sufficiency Rating in Percent	97
DESCRIPTIO	TEXT	50	Bridge or Culvert Description	3-10ft. X 10ft. X 56ft. RCB

NRCS Structure

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
NAME	TEXT	60	Name of Structure or Site	KADASHAN BOTTOM 2
NOTES	TEXT	100	Additional Information	WAGONER CO SCD & K (owner)

UST/AST Site

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
SOURCE	TEXT	30	Database Reference Source	UST
OWNER	TEXT	50	Owner or Company Name	Tank N Tummy Gas Station
ADDRESS	TEXT	60	Owner Mailing Address	1725 E. Main St., Tulsa, Oklahoma 74135
NOTES	TEXT	100	Facility Number, Storage Tank(s) Status	4514580; 3 - POU, 4 - CIU
ADDTL_NOTE	TEXT	100	Additional Information	unlisted-AST observed during field visit on 9/1/2022

LUST/LAST Site

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
SOURCE	TEXT	30	Database Reference Source	LUST
OWNER	TEXT	50	Owner or Company Name	Tank N Tummy Gas Station
ADDRESS	TEXT	60	Owner Mailing Address	1725 E. Main St., Tulsa, Oklahoma 74135
NOTES	TEXT	100	Facility Number, Storage Tank(s) Status	4514580; 3 - POU, 4 - CIU
ADDTL_NOTE	TEXT	100	Case Number(s), Type, Dates and Status	064-1642, Confirmed Release 3/15/16, Open

Potential Hazardous Waste Site

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
SOURCE	TEXT	30	Database Reference Source	ALT FUELS
OWNER	TEXT	50	Owner or Company Name	Rocky Mountain Propane
ADDRESS	TEXT	60	Owner Mailing Address	1359 W. Main St., Tulsa, Oklahoma 74104
NOTES	TEXT	100	Site Information	liquified propane distributor
ADDTL_NOTE	TEXT	100	Additional Information	*optional site information*

Oil/Gas Well

FIELD NAME	TYPE	LENGTH/ PRECISION	DESCRIPTION OF INPUT	EXAMPLE INPUT AND FORMAT
SOURCE	TEXT	30	Well Type	Oil
OWNER	TEXT	50	Owner or Operator Name	Boomer Production Inc.
ADDRESS	TEXT	60	Owner Mailing Address	3518 E. Main St., Yukon, Oklahoma 73099
NOTES	TEXT	100	Field Observations	single pump jack near existing ROW boundary
ADDTL_NOTE	TEXT	100	Additional Information	*optional well site information*

ATTACHMENT A3
GIS Symbology Standards

Polygons

SHAPEFILE	COLOR (RGB)	WIDTH	TRANSPARENCY	EXAMPLE
DATA COLLECTION AREA	0,255,0	3 pt	0%	
PARCEL	240,0,240	1 pt	0%	
CEMETERY	255,0,0	0 pt	40%	
INDIAN/TRIBAL LAND	128,0,160	0 pt	40%	
FEDERAL PROPERTY/EASEMENT	255,255,0	0 pt	40%	
MILITARY PROPERTY	0,0,255	0 pt	40%	
OTA PROPERTY	197,250,237	0 pt	40%	
PARK/ RECREATION FACILITY	56,168,0	0 pt	40%	
WRP SITE	214,133,137	0 pt	40%	
WILDLIFE REFUGE	245,227,196	0 pt	20%	
CULTURAL RESOURCES SITE	255,127,0	0 pt	40%	
DESIGNATED CRITICAL HABITAT	226,187,242	0 pt	20%	
WETLAND (FIELD VERIFIED)	255,167,127	2 pt	0%	

Lines

SHAPEFILE	COLOR (RGB)	WIDTH	TRANSPARENCY	EXAMPLE
ROW BOUNDARY	0,0,255	2 pt	0%	
STREAM	0,255,255	2 pt	0%	
UTILITIES				
COMMUNICATIONS	255,127,0	1 pt	0%	
GAS	255,255,0	1 pt	0%	
OIL	230,230,0	1 pt	0%	
POWER	255,0,0	1 pt	0%	
SANITARY	0,200,0	1 pt	0%	
STORM	165,97,0	1 pt	0%	
WATER	0,150,255	1 pt	0%	

Points

SHAPEFILE	COLOR (RGB)	OUTLINE WIDTH	OUTLINE COLOR (RGB)	EXAMPLE
BILLBOARD/TRADEFIXTURE	255,190,190	1 pt	0,0,0	
NBI	255,0,197	1 pt	0,0,0	
NRCS STRUCTURE	0,150,255	1 pt	0,0,0	
UST/AST	255,255,0	1 pt	0,0,0	
LUST/LAST	255,0,0	1 pt	0,0,0	
POTENTIAL HAZARDOUS WASTE SITE	128,0,160	1 pt	0,0,0	
OIL/GAS WELL	0,254,160	1 pt	0,0,0	