

**ENDANGERED, THREATENED AND CANDIDATE SPECIES, DESIGNATED
CRITICAL HABITAT, BALD EAGLE AND MIGRATORY BIRD ASSESSMENTS**

For

USFWS TAILS #		02EKOK00-2021-SLI-1700			
Email used to request IPaC official species list			jschmidt@ableconsulting.net		
County	Cleveland	JP Number	33025(04)	Project Number	J3-3025(004)PM
Road Number	SH 37	Water Body Name		N/A	
ROW Date	2019	Let Date	2022	Project Length	0.3 miles
Project General Location		SH 37 (4th Street): from 0.15 miles east of I-35, extend east 0.30 miles.			
Project Description & Statement From Oracle		Grade, drain, bridge and surface			

Prepared for:
Oklahoma Department of Transportation
Environmental Programs Division
200 NE 21st Street
Oklahoma City, OK 73105

Prepared by:

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Report Date:	May 21, 2021
Field Survey Date	May 17, 2021
Field Survey Biologist(s)	Jason Schmidt

1. PROJECT OVERVIEW

1.1 Federal Nexus

This biological assessment, prepared by the above named Company/Agency for the Oklahoma Department of Transportation (ODOT), addresses the above named project in compliance with Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended. Section 7 of the ESA requires that, through consultation with the U.S. Fish and Wildlife Service (Service), federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species or result in the destruction or adverse modification of critical habitat. This assessment evaluates the potential effects of the proposed transportation project on species that are federally listed under the ESA. Specific project design elements are identified that avoid or minimize adverse effects of the proposed project on listed species and designated critical habitat.

1.2. Project Description

Grade, Drain, Surface and Bridge

Description of the **existing** bridge/roadway facility and reason for proposed project

The existing roadway consists of four, 12-foot concrete-paved, curbed lanes, which cross the BNSF intersection at grade. There are no sidewalks or shoulders along this stretch. Electrical utilities run along the eastside of 4th Street. The current (2021) Annual Average Daily Traffic (AADT) is 15,500 vehicles per day (vpd) with a future 20-year AADT of 18,600 vpd.

The purpose of the project is to improve safety and reduce delay time caused by the existing BNSF at-grade railroad crossing within the City of Moore on SE 4th Street (SH-37).

Description of **proposed** improvements

The proposed project is construction of an underpass beneath the BNSF railroad. The proposed project would construct a concrete-paved underpass that would carry 4th Street beneath the BNSF railroad and include the construction of retaining walls and a sidewalk. The roadway would be composed of four, 13-foot concrete paved driving lanes and a 12-foot raised median under the tracks. On either side of the tracks the 12-foot center would be used as a turn lane. Currently the BNSF runs two tracks at this point, but the proposed project would include room for three tracks.

During construction, the roadway will be closed, and traffic will be detoured. The railroad will be diverted on a shoofly during construction. The project also includes relocation of properties adjacent to the project area as the proposed construction would remove access to those properties from 4th Street.

The NEPA study area's eastern terminus is at 4th Street and Tower Drive and the western terminus is at 4th Street and S. Broadway Street. The northern boundary of the study area is E. Main Street to the north and the southern boundary is a point 1,453 feet from 4th Street along the BNSF railroad. The study area limits along 4th Street are typically 100 feet wide, generally centered on centerline. Across from the City of Moore Park and Santa Fe Street, there are two "bumpouts" of proposed right-of-way that are approximately 580 feet and 160 feet, respectively.

Check if any of the following is expected s part of the proposed action

- Work within OHWM is expected
- Project is OFF-SET alignment or NEW alignment
- Project involves **NO OFF EXISTING PAVEMENT** work
- Project requires new ROW (permanent &/or temporary)

1.3. Project Area and Setting

Project Location		Environmental Study Footprint		Ecoregion & Game Type	
<u>Section Range & Township</u>	<u>Lat/Long NAD 83)</u>	<u>Dimensions</u>	<u>Acreage</u>	<u>Level IV Ecoregion (Woods et al. 2005)</u>	<u>Game Type (Duck and Fletcher 1943)</u>
Sections 14 & 23 of T10N-R3W	35.334367 -97.484526	0.3 miles along SH 37, generally 50ft north and south of centerline. Across from the City of Moore Park and Santa Fe Street, there are two bumpouts of proposed right-of-way that are approximately 580 feet and 160 feet, respectively. 0.55 miles along BNSF railway, 300ft east and west narrowing to 100ft east and west 300ft south of SH 37 centerline.	19.5	Cross Timbers Transition (27o)	Tallgrass Prairie

Action Area:

The project action area includes those areas that will be directly affected by construction activities as well as a 0.25-mile area surrounding the Study Area for migratory birds.

2. FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Species Range and Occurrence Evaluation (Check all that apply)

Species	IPaC ¹	Watershed ²	Water Body ³	Records ⁴
	Check if Yes	Check if YES	Check if Yes	Check if Yes
Red-cockaded Woodpecker	<input type="checkbox"/>			<input type="checkbox"/>
Whooping Crane	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Gray Bat	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Indiana Bat	<input type="checkbox"/>			<input type="checkbox"/>
Ozark Big-eared Bat	<input type="checkbox"/>			<input type="checkbox"/>
Neosho Mucket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ouachita Rock Pocketbook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scaleshell Mussel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Winged Mapleleaf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Harperella	<input type="checkbox"/>			<input type="checkbox"/>

Species	IPaC ¹	Watershed ²	Water Body ³	Records ⁴
	Check if Yes	Check if YES	Check if Yes	Check if Yes
American Burying Beetle	<input type="checkbox"/>			<input type="checkbox"/>
Eastern Black Rail	<input type="checkbox"/>			<input type="checkbox"/>
Piping Plover	<input checked="" type="checkbox"/>			<input type="checkbox"/>
Red Knot	<input checked="" type="checkbox"/>			<input type="checkbox"/>
Northern Long-eared Bat	<input type="checkbox"/>			<input type="checkbox"/>
Arkansas River Shiner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leopard Darter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neosho Madtom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ozark Cavefish	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
American Alligator	<input type="checkbox"/>			<input type="checkbox"/>
Rabbitsfoot Mussel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rattlesnake-master Borer Moth	<input type="checkbox"/>			<input type="checkbox"/>

¹Species is on the Proposed Project's IPaC List

²Action Area is within a watershed associated with occupied water bodies

³Action Area includes an occupied water body

⁴Project site within 5 miles of known records

Designated or Proposed Critical Habitat	Action Area includes Designated Critical Habitat (Check <input checked="" type="checkbox"/> if Yes)
Whooping Crane	<input type="checkbox"/>
Arkansas River Shiner	<input type="checkbox"/>
Leopard Darter	<input type="checkbox"/>
Neosho Mucket	<input type="checkbox"/>
Rabbitsfoot	<input type="checkbox"/>

Action area is adjacent to McAlester Army Ammunition Plant or Camp Gruber/Cherokee WMA

All of part of the action area is within the 10 mile **gray bat** priority area (ODOT will check)

All of part of the action area is within the 2 mile **gray bat** priority area (ODOT will check)

Action area is within what percentage **Whooping Crane** migratory corridor **90%**

Action area is within 15 miles of Salt Plains NWR, Hackberry Flat, or Foss Reservoir.

Action area is within the historic range of the **Red-cockaded Woodpecker**

Action area is within 10 miles of the McCurtain County Wilderness Area

Action area is within 10 miles of the Pushmataha Wildlife Management Area

3. ENVIRONMENTAL BASELINE

3.1. Ecological Processes and Conditions

Soils (Use Soil Map of Oklahoma by Carter and Gregory 2008)

Soil Class	Central Rolling Red Prairies
Soil Name	Renfrow-Kirkland-Grainola-Bethany
Soil Type	Mollisols, Alfisols
Soil Characteristics	Clayey and humus-rich soils on very gentle slopes

Climate (Use Woods et al. 2005)

Precipitation	Mean annual inches	29-38
Growing Season	Number of days	205-225
Mean Temperatures	Summer min/max	70-94
	Winter min/max	23-49

River System

None present

Land Use and Land Ownership

From Woods et al. 2005	Mixture of rangeland and cropland. Oil and gas fields occur.
From Field investigation	Entirely urban

Terrestrial and Aquatic Community Descriptions (based on field site visit)

<p>Community types that may be impacted by construction activities include maintained right of way (ROW), maintained lawn, and unmaintained tree line. Environmental conditions appeared to be wet at the time of the survey. The month prior to the site assessment, the study area had received 4.91 inches of rain. According to National Drought Monitor data, the area was not experiencing drought conditions at the time of site reconnaissance. Topography in the area is flat.</p> <p>Maintained ROW: Dominant vegetation in this community type included bermudagrass (<i>Cynodon dactylon</i>), white clover (<i>Trifolium repens</i>), common dandelion (<i>Taraxacum officinale</i>), and various plantings of Bradford pear (<i>Pyrus calleryana</i>), Chinese elm (<i>Ulmus parvifolia</i>), and Chinese pistache (<i>Pistacia chinensis</i>) (Photographs 1 & 2).</p> <p>Maintained Lawn: Dominant vegetation in this community type included bermudagrass (Photograph 3).</p> <p>Unmaintained Tree Line: Dominant vegetation in this community type included bermudagrass, Siberian elm (<i>Ulmus pumila</i>), American elm (<i>Ulmus americana</i>), yellow sweet clover (<i>Melilotus officinalis</i>), and Bradford pear (Photograph 4).</p> <p>Stormwater is diverted into roadside ditches and carried to drainages outside the eastern and western boundaries of the study area.</p>

3.2 Species Habitat Analysis

- Pedestrian survey of entire NEPA study footprint (including 300-foot work zone buffer in karst areas)
- Bridge/Structure inspected for bat use (Complete the Bridge Inspection Form)

SPECIES	HABITAT	
Whooping Crane	Shallowly-submerged sandbars in large river channels occur within the 0.25 miles of the NEPA Environmental Study Footprint.	<input type="checkbox"/>
	If within the 75% migration corridor, provide the number of acres of emergent wetlands that occur within the NEPA Environmental Study Footprint.	N/A
	Croplands suitable for foraging occur within the 0.25 miles of the NEPA Environmental Study Footprint and is within the 95% migration corridor.	<input type="checkbox"/>
Piping Plover	Sparsely vegetated sandy or gravelly shorelines and islands associated with the major river systems occur within the 0.25 miles of the NEPA Environmental Study Footprint.	<input type="checkbox"/>
	Salt flats or mudflats associated with reservoirs occur within the 0.25 miles of the NEPA Environmental Study Footprint.	<input type="checkbox"/>
Red Knot	Mudflats associated with reservoirs occur within the 0.25 miles of the NEPA Environmental Study Footprint.	<input type="checkbox"/>

4. ANALYSIS OF EFFECTS

4.1 Direct Effects

Species/ Resource	Habitat impacts expected from project activities	<u>Describe specific ACTIONS of the project and the results of those actions on species habitats, including indirect impacts to prey or drinking water, as well as improvements to habitat as a result of specific actions.</u> <u>If habitat within the action area identified above will not be impacted, describe why.</u>
NONE	<input type="checkbox"/>	

4.2 Indirect Effects

Long-term habitat alterations

Species/ Resource	<u>Identify long-term, permanent changes in habitat</u>
NONE	

Indirect land use impacts

No indirect land use changes are expected.
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4.3 Interrelated and Interdependent Actions and Activities

No interrelated and interdependent actions are expected.
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ODOT Project JP Number:	33025(04)

SPECIES / DESIGNATED CRITICAL HABIT	CONCLUSION		ESA SECTION 7			NOTES AND DOCUMENTATION Check <input checked="" type="checkbox"/> all that apply			
	Species Habitat present within the action area	Project Activities expected to impact habitat	No Effect	May affect, not likely to adversely affect	May affect, Likely to adversely affect	Field Studies	ONHI database / ABB	USFWS occupied waterbodies & watersheds	Whooping Crane Migration Corridor
Whooping Crane	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Piping Plover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Red Knot	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONCLUSIONS

No Effect	Whooping Crane, Piping Plover, Red Knot
May affect, not likely to adversely affect	NONE
May affect, likely to adversely affect	NONE
Not likely to jeopardize the continued existence of the species – Candidate species only	NONE
Appropriate Effect Determination for ABB has been made under the BO for the final 4(d) rule	<input type="checkbox"/>
Appropriate Effect Determination has been made under the FHWA NLEB/Ibat Programmatic BA & BO	<input type="checkbox"/>
Appropriate Effect Determination for NLEB has been made under the BO for the final 4(d) rule	<input type="checkbox"/>

RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES
ODOT WILL ADD THIS INFORMATION

5. BALD AND GOLDEN EAGLE PROTECTION ACT ASESMENT

5.1. Bald Eagle Assessment

The Bald Eagle (*Haliaeetus leucocephalus*) is a large predatory bird protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Activities that would disturb eagles are prohibited under the Bald and Golden Eagle Protection Act. “Disturb” means to agitate an eagle to the degree that causes or is likely to (1) cause injury, (2) interfere with breeding, feeding or sheltering behavior, or (3) nest abandonment.

Potential Bald Eagle Habitat Present	w/in NEPA Footprint	w/in 660 ft Buffer of NEPA Footprint	DO NOT LEAVE BLANK
Presence of Cottonwood, Sycamore, Pecan or Pine	<input type="checkbox"/>	<input type="checkbox"/>	No trees large enough to support an eagle nest within footprint or buffer.
Open foraging areas with large trees	<input type="checkbox"/>	<input type="checkbox"/>	No large trees or open foraging areas within footprint or buffer.
Distance to closest perennial water body	River or Lake	4.8 miles	The Canadian River is 4.8 miles to the southwest of the buffer. Small (~2 acres) pond within buffer.
	Stream or Pond	0 feet	
Potential Bald Eagle Nests Observed	<input type="checkbox"/>	<input type="checkbox"/>	No nests observed.
Bald Eagles Observed in the general vicinity	<input type="checkbox"/>	<input type="checkbox"/>	No eagles observed.

General Description of Bald Eagle Nesting Habitat and Impact Determination, within the NEPA Footprint and within 660-ft of the NEPA Footprint	Area is entirely urban. Eagles would avoid area for nesting.
Station #s for Buffered Bald Eagle Habitat	N/A
In order to avoid impacts to Bald Eagles, if Bald Eagles or their habitat are observed during the biological assessment, a survey for eagles and their nests will be conducted within 660 feet of the work zone, during the winter prior to, and within one year of, the start of construction. If a nest is found, appropriate conservation measures based on the National Bald Eagle Management Guidelines will be implemented.	

6. MIGRATORY BIRD TREATY ACT (MBTA) ASSESSMENT

6.1 Structure Assessment

Cliff Swallows (*Petrochelidon pyrrhonota*) and Barn Swallows (*Hirundo rustica*) are small colonial and semi-colonial nesting birds protected by the federal Migratory Bird Treaty Act. Barn Swallows use man-made structures for nesting and live in close association with humans. Both species commonly use bridges and culverts in Oklahoma for nesting. Other migratory birds can also nest on transportation structures.

Identify <u>ALL</u> structures including pipe culverts and whether positive or negative for migratory birds (identify named streams where possible rather than just FS#). Provide shapefiles and map of structures identifying pos/neg swallow structures.	Approx. Number of Cliff Swallow Nests	Approx. Number of Barn Swallow Nests	Approx. Number of Eastern Phoebe Nests
Poly culvert under BNSF tracks (35.332829, -97.484574) (Photograph 5)	0	0	0
Concrete culvert under 4th Street, Station #16+10.00 (Photograph 6)	0	0	0
Concrete culvert under 4th Street, Station #17+05.00 (Photograph 7)	0	0	0
Metal culvert under Santa Fe Street (35.337952, -97.484202) (Photograph 8)	0	0	0
Metal culvert under Main Street (35.338145, -97.484357) (Photograph 9)	0	0	0
Metal culvert under BNSF tracks (35.338145, -97.484409) (Photograph 9)	0	0	0
Metal culvert under BNSF tracks (35.338093, -97.484406) (Photograph 9)	0	0	0
Metal culvert under BNSF tracks (35.338117, -97.484401) (Photograph 9)	0	0	0

Identify <u>ALL</u> structures including pipe culverts and whether positive or negative for migratory birds (identify named streams where possible rather than just FS#). Provide shapefiles and map of structures identifying pos/neg swallow structures.	Approx. Number of Cliff Swallow Nests	Approx. Number of Barn Swallow Nests	Approx. Number of Eastern Phoebe Nests
Other MB and Nests Observed	No migratory birds or bird nests observed.		
Based on existing plans, no work on suitable drainage structures will occur		<input type="checkbox"/>	
In order to avoid impacts to migratory birds, if structures are being used by these birds, any activities that may destroy active nests, eggs or birds shall be completed between September 1, and February 28, when nests are not occupied. If seasonal avoidance cannot be accomplished, structures shall be protected from new nest establishment prior to March 1, by means that do not result in death or injury to these birds.			

6.2 Birds of Conservation Concern

<u>Species Identified on IPaC list</u>	<u>Breeding Season</u>
NONE	-
There are no FWS migratory birds of concern within the vicinity of the project area.	
In order to avoid impacts to USFWS Birds of Conservation Concern, the removal of trees and shrubs will be restricted to areas within the actual limits of construction, and all aspects of the project (e.g. temporary work areas, alignments) will be modified to avoid tree removal, if possible.	

6.3 Interior Least Tern

Sparsely vegetated islands or sandbars along large rivers, with nearby areas of shallow water, occur within the 0.25 miles of the NEPA Environmental Study Footprint.	<input type="checkbox"/>
If habitat identified above, provide overview of nesting habitat within 0.25 mile, assess impacts from construction activities, and provide if any NHI occurrences	
Interior Least Terns are protected under the Migratory Bird Treaty Act. In order to avoid impacts to Interior Least Terns, any activities that may destroy active nests, eggs or birds shall be completed between September 1 and April 30, outside the nesting season. If construction activities will occur during the active nesting season, a 0.25 mile no-work-zone buffer from the Ordinary High Water Mark of the River will be established until the nesting survey can be completed. Any Interior Least Terns nesting in the area must be protected by limiting all work within 0.25 miles of any nesting colonies until after September 1 and be completed by April 30, the following year.	

7. REFERENCES:

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8. FIGURES