

## **ENVIRONMENTAL STUDIES FINDINGS**

### **I-35 ROADWAY IMPROVEMENTS BETWEEN PURCELL AND GOLDSBY MCCLAIN COUNTY J/P 36185(04)**

The project area was assessed for environmental resources. The following is a summary of known environmental conditions in the project area:

#### **Waters and Wetlands:**

**No adverse impacts are expected. A permit may be required because of potential stream and wetland impacts.**

The proposed project may impact creeks and streams during construction. Any stream crossing work will incorporate water quality protection best management practices to prevent erosion and keep sediment out of the creek. New and modified crossings would be subject to U.S. Army Corps of Engineers permitting under Section 404 of the Clean Water Act with a Nationwide General Permit. No significant, permanent adverse impacts to waterbodies are expected.

#### **Threatened and Endangered Species:**

**A habitat review was completed for threatened and endangered species in the project area. No adverse impacts to protected species are expected.**

Habitat reviews were conducted for federally listed threatened and endangered species, as well as for other protected species. There are several protected species of birds, fish and insects potentially located within the study area or general vicinity and some suitable habitat was identified within the study area. Consultation with the U.S. Fish and Wildlife Service was conducted and it was determined that no permanent adverse impacts to threatened or endangered species are anticipated.

#### **Cultural Resources:**

**A field study to determine the effects on cultural resources was completed. No effects on cultural resources are anticipated.**

No potentially significant historic or pre-historic sites or properties were found within the project area during the study. ODOT completed the Section 106 consultation on behalf of Federal Highway Administration and determined the project will have no effect on cultural resources. ODOT also consulted with the following tribes: Chickasaw Nation, Osage Nation, Quapaw Nation, and Wichita and Affiliated Tribes. The Chickasaw Nation responded that there are no important cultural resources in the area and agreed with ODOT that the project will have no adverse impacts. The Quapaw Nation responded that the project will have no effect on known properties of cultural significance.

### **Hazardous Materials:**

**A full hazardous materials study was completed. No impacts are expected.**

Hazardous materials and waste related impacts were determined by evaluating the regulatory database reports, assessing the Oklahoma Corporation Commission's (OCC) records, reviewing the Oklahoma Water Resources Board's (OWRB) well databases, and by performing a field study. Some areas were identified that could pose an environmental risk within the proposed project footprint and adjacent to the study area. ODOT determined that these sites are not considered to be high risk. No significant adverse impacts are anticipated.

### **Floodplains:**

**The project is not located within a floodplain. No permitting will be required.**

### **Noise:**

A traffic noise analysis was performed for this project. The analysis utilized the FHWA Traffic Noise Model version 2.5 in accordance with FHWA 23CFR 772 and complies with the ODOT Noise Policy dated July 13, 2011. For the purpose of validating the model, three (3) sound level measurements were taken from two (2) locations along the project. These measurements were within  $\pm 3$  dB(A) of the TNM predicted values which indicates the TNM 2.5 model will accurately estimate future noise levels.

Single-family residences are the prominent noise-sensitive receivers within the immediate project area. Ten (10) residential receiver locations were analyzed as Noise Abatement Criteria Activity Category B (NAC-B), and one (1) place of worship was analyzed as NAC-D. Under the current conditions, one (1) residential receiver is impacted. Based on the proposed project and future traffic volumes, one (1) residential receiver would exceed the 67 decibels (dB(A) Leq (h) criteria for NAC-B. Furthermore, no receivers will experience a substantial increase (i.e., 15 dB) in future noise levels over the existing levels, with the highest increase being 3.6 dB.

As planned, the proposed I-35 improvements will have traffic noise impacts. Noise mitigation, in the form of a free-standing noise wall, within five feet of the project right-of-way, is considered the most appropriate noise abatement measure for the identified impacted receptor. Due to its isolated location, mitigation for the residential receiver would prove to be neither feasible nor reasonable.

To aid in noise-compatible land use planning purposes, the future impact zone (i.e., 66 dB(A) contour line) was determined to be a maximum of 430 feet from the centerline of the I-35 facility. Any future development within this zone should be compatible with

elevated traffic noise levels. Residential (NAC-B) and all NAC-C uses are discouraged within the impact zone due to anticipated future noise levels.