

REVISIONS	
DESCRIPTION	DATE
REVISD NOTES	10-13-17

ENVIRONMENTAL MITIGATION NOTES

AMERICAN BURYING BEETLE

THE AMERICAN BURYING BEETLE IS A LARGE CARRION BURYING BEETLE THAT OCCURS WITHIN THE ACTION AREA. NO ARTIFICIAL LIGHTING SHALL BE USED DURING CONSTRUCTION. CARCASSES AND ALL FOOD TRASH SHALL BE REMOVED FROM THE PERMANENT AND TEMPORARY RIGHT-OF-WAY THROUGHOUT PROJECT ACTIVITIES. FOLLOWING CONSTRUCTION, TOPSOIL SHALL BE PLACED ON TOP OF ALL AREAS OF GROUND DISTURBANCE, PRIOR TO RE-VEGETATION.

BAT BRIDGE NOTE

THE GRAY BAT AND NORTHERN LONG-EARED BAT ARE LISTED BAT SPECIES THAT OCCUR WITHIN THE PROJECT'S ACTION AREA. AN ACOUSTIC SURVEY, CONDUCTED DURING THE 2016 ACTIVE SEASON, WAS NEGATIVE FOR BOTH SPECIES. SURVEY RESULTS ARE ONLY VALID THROUGH MARCH 31, 2018. IF BRIDGE/STRUCTURE REPAIR, RETROFIT, MAINTENANCE, REHABILITATION OR DEMOLITION, IS NOT COMPLETED BY MARCH 31, 2018, THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-521-2515 TO SCHEDULE ANOTHER SURVEY. SURVEYS CAN ONLY BE CONDUCTED BETWEEN MAY 15, AND AUGUST 15. ANY REPAIR, RETROFIT, MAINTENANCE, REHABILITATION OR DEMOLITION WORK BETWEEN MARCH 31, 2018 AND COMPLETION OF THE 2018 SURVEY WOULD REQUIRE ADDITIONAL CONSULTATION WITH THE USFWS FOR AN ADVERSE EFFECT. ADDITIONAL CONSULTATION WILL TAKE A MINIMUM OF 30 DAYS, FROM THE TIME OF A COMPLETE SUBMISSION OF THE DETAILED AND EXPLICIT DESCRIPTION OF ALL PROPOSED WORK ACTIVITIES AND TIMEFRAMES, FROM THE RESIDENT ENGINEER TO THE ODOT BIOLOGIST. IF LISTED BAT SPECIES ARE DETECTED DURING THE 2018 ACOUSTIC SURVEY, REPAIR, RETROFIT, MAINTENANCE, REHABILITATION OR DEMOLITION SHALL BE RESTRICTED TO INACTIVE SEASON BETWEEN NOVEMBER 16, AND MARCH 31. THE CONTRACTOR WILL NOT BE COMPENSATED FOR ANY DELAYS.

BAT TREE NOTE

THE GRAY BAT AND NORTHERN LONG-EARED BAT ARE LISTED BAT SPECIES THAT OCCUR WITHIN THE PROJECT'S ACTION AREA. AN ACOUSTIC SURVEY, CONDUCTED DURING THE 2016 ACTIVE SEASON, WAS NEGATIVE FOR BOTH SPECIES. THIS SURVEY IS ONLY VALID THROUGH MARCH 31, 2018. THE REMOVAL OF TREES AND SHRUBS SHALL BE RESTRICTED TO AREAS WITHIN THE ACTUAL LIMITS OF CONSTRUCTION (TOE OF SLOPE/TOP OF CUT). THE RESIDENT ENGINEER SHALL INSTALL BRIGHT-COLORED FLAGGING/FENCING TO INDICATE WHICH TREES ARE NOT TO BE REMOVED AND ENSURE LIMITS OF TREE REMOVAL ARE VISIBLY AND CLEARLY DEFINED FOR THE CONTRACTOR. THE RESIDENT ENGINEER SHALL ALSO PROVIDE BEFORE AND AFTER PHOTO-DOCUMENTATION OF EXTENT OF TREE CLEARING WITHIN THE PROJECT AREA TO THE ODOT BIOLOGIST.

BAT LIGHTING NOTE

THE GRAY BAT AND NORTHERN LONG-EARED BAT ARE LISTED BAT SPECIES THAT OCCUR WITHIN THE PROJECT'S ACTION AREA. IN ORDER TO AVOID AND MINIMIZE ADVERSE IMPACTS TO LISTED BAT SPECIES, IF ANY PERMANENT LIGHTING IS INSTALLED OR REPLACED, DOWNWARD-FACING FULL CUT-OFF LENS LIGHTS SHALL BE INSTALLED AND DIRECTED AWAY FROM WOODED AREAS AND STREAMS.

BAT WATER QUALITY NOTE

THE GRAY BAT AND NORTHERN LONG-EARED BAT ARE LISTED BAT SPECIES THAT OCCUR WITHIN THE PROJECT'S ACTION AREA. IN ORDER TO AVOID AND MINIMIZE ADVERSE IMPACTS TO LISTED BAT SPECIES, APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS FROM STORM WATER DISCHARGES, AS ESTABLISHED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, SHALL BE CONSCIENTIOUSLY IMPLEMENTED THROUGHOUT THE PROPOSED CONSTRUCTION PERIODS. THE EFFECTIVENESS OF EROSION CONTROLS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS, AND OTHER SUCH SUBSTANCES SHALL BE STORED AT LEAST 100 FEET FROM THE OHWMS. REFUELING OF CONSTRUCTION EQUIPMENT SHALL ALSO BE CONDUCTED AT LEAST 100 FEET FROM THE OHWMS. SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED AROUND STAGING AREAS TO PROHIBIT DISCHARGE OF MATERIALS FROM THESE SITES. CONSTRUCTION WASTE MATERIALS AND DEBRIS SHALL BE STOCKPILED AT LEAST 25 FEET OUTSIDE OF THE OHWMS, AND THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF PROPERLY FOLLOWING COMPLETION OF THE PROJECT.

KARST NOTE

ALTHOUGH A SURVEY HAS BEEN COMPLETED TO IDENTIFY KARST FEATURES, SUCH AS CAVES, SINKHOLES, LOSING STREAMS AND SPRINGS, PRIOR TO THE PROJECT, THERE IS A POTENTIAL TO UNCOVER KARST FEATURES DURING CONSTRUCTION. KARST FEATURES ARE POTENTIAL HABITAT FOR FEDERALLY THREATENED AND ENDANGERED SPECIES, INCLUDING BATS. UNDISCOVERED KARST FEATURES MAY OCCUR ON OR NEAR PROJECT SITES, EVEN IN PREVIOUSLY DEVELOPED AREAS. IF KARST FEATURES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL ESTABLISH A BUFFER AREA OF 300 FEET AROUND THE NEWLY DISCOVERED FEATURE, AND THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-521-2515. THE ODOT BIOLOGIST SHALL CONTACT THE US FISH AND WILDLIFE SERVICES (USFWS) TO FURTHER EVALUATE THE KARST FEATURE. NO FILL MATERIAL SHALL BE PLACED INTO THE KARST FEATURE OPENING, AND ALL PARKING, MAINTENANCE, STAGING FUELING, STORM WATER MANAGEMENT ACTIVITIES, GROUND-DISTURBING, TREE-CLEARING, OR ANY OTHER CONSTRUCTION ACTIVITY SHALL BE ALLOWED WITHIN THE 300-FOOT BUFFER, UNTIL EVALUATION BY USFWS IS COMPLETE. IF KARST FEATURES ARE DETERMINED TO BE HABITAT FOR FEDERALLY-LISTED OR SENSITIVE SPECIES, A FORMAL CONSULTATION WITH USFWS SHALL BE REQUIRED BEFORE THE CONSTRUCTION CAN RESUME. THIS CONSULTATION MAY TAKE UP TO 180 DAYS AFTER THE INITIAL EVALUATION OF THE KARST FEATURES. THE INITIAL EVALUATION OF THE KARST FEATURES AND THE CONTRACTOR SHALL NOT BE COMPENSATED FOR ANY DELAYS DURING THAT TIME. IN SOME CASES, MODIFICATION TO THE PROJECT MAY BE NECESSARY AND THAT WOULD RESULT IN A CHANGE ORDER.

ENVIRONMENTAL MITIGATION NOTES (contd.)

BALD EAGLE NOTE

THE BALD EAGLE NESTING SEASON IN OKLAHOMA EXTENDS FROM SEPTEMBER 16, THROUGH MAY 31. A BALD EAGLE SURVEY WAS COMPLETED FOR THIS PROJECT IN DECEMBER 2016. NO NESTS WERE OBSERVED WITHIN THE EXPECTED IMPACT AREA. SURVEY RESULTS ARE VALID ONLY FOR THE NESTING SEASON IN WHICH THE SURVEY WAS PERFORMED. IF CONSTRUCTION ACTIVITIES HAVE BEGUN, BUT ARE NOT COMPLETED BY SEPTEMBER 16, 2017 THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-521-2515. THE ODOT BIOLOGIST SHALL SCHEDULE ANY ADDITIONAL SURVEYS THAT MAY BE REQUIRED AS SOON AS LEAVES FALL OFF THE TREES (APPROXIMATELY NOVEMBER 1). BECAUSE NO NESTS WERE OBSERVED DURING THE INITIAL SURVEY, AND IT CAN TAKE A PAIR OF EAGLES ONE TO THREE MONTHS TO CONSTRUCT A NEW NEST, IF CONSTRUCTION ACTIVITIES HAVE BEGUN BEFORE OCTOBER 31, 2017 THEY MAY CONTINUE WHILE ADDITIONAL NEST SEARCH SURVEYS ARE CONDUCTED AFTER LEAF-OFF. IF CONSTRUCTION ACTIVITIES HAVE NOT BEGUN BY OCTOBER 31, 2017 A NEW NEST SURVEY SHALL BE COMPLETED BY THE ODOT BIOLOGIST BEFORE CONSTRUCTION ACTIVITIES CAN BEGIN. NEST SEARCH SURVEYS CAN ONLY BE CONDUCTED WHEN LEAVES ARE NOT ON THE TREES TYPICALLY BETWEEN DECEMBER 1ST AND FEBRUARY 28TH. IF NESTS ARE OBSERVED, A 1000 FOOT NO-WORK BUFFER SHALL BE PLACED AROUND THE NEST. IF THE BUFFER CANNOT BE MAINTAINED, PROJECT ACTIVITIES WITHIN 1000 FEET OF THE NEST, SHALL BE CONDUCTED BETWEEN JUNE 1 AND SEPTEMBER 15 (OUTSIDE THE NESTING SEASON).

MIGRATORY BIRD NOTE

MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. MANY BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR MOST MIGRATORY BIRD SPECIES EXTENDS FROM APRIL 1 TO AUGUST 31. MIGRATORY BIRD NESTING USE OF THE RCBS (LOCATED AT STA. 1431+04.77 AND STA. 1445+39.86) WAS OBSERVED. PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING CULVERTS SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND MARCH 31, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. IF PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION CANNOT BE COMPLETED BETWEEN SEPTEMBER 1 AND MARCH 31, THE CULVERTS SHALL BE PROTECTED FROM NEW NEST ESTABLISHMENT PRIOR TO APRIL 1, BY MEANS THAT DO NOT RESULT IN BIRD DEATH OR INJURY. OPTIONS INCLUDE THE EXCLUSION OF ADULT BIRDS FROM SUITABLE NEST SITES ON OR WITHIN A STRUCTURE BY THE PLACEMENT OF WEATHER-RESISTANT POLYPROPYLENE NETTING WITH 0.25-INCH OR SMALLER OPENINGS, PRIOR TO APRIL 1. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST.

ALTHOUGH NO NESTS WERE OBSERVED ON ALL OTHER STRUCTURES ASSOCIATED WITH THIS PROJECT, THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-521-2515 IF ANY BIRD USE OF THESE STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGES AND CULVERTS SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND MARCH 31 (WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED).

Design		SH 10 OVER BIG CABIN CREEK	CRAIG COUNTY
Drawn		ENVIRONMENTAL NOTES	
Checked			
Approved			
Squad			
		State Job No. <u>29068(04)</u>	Sheet No. <u>5</u>