CE & SUPPORTING DOCUMENTATION

I-40 AT TURKEY CREEK (EAST AND WEST BOUND) AND SAND CREEK EAST BOUND, LOCATED 16.2 AND 19.9 MILES EAST OF THE TEXAS STATE LINE, BECKHAM COUNTY, OKLAHOMA

ODOT PROJECT NUMBER: J3-1692(004)
ODOT JOB/PIECE NUMBERS: 31692(04)
Guernsey Project No.: OK70425001

Prepared for:

OKLAHOMA Transportation

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Prepared by:

guernsey | ENGINEERS ARCHITECTS CONSULTANTS

Guernsey
5555 North Grand Blvd.
Oklahoma City, OK
405.416.8100

Environmental Programs Division Office 405 - 521-3050

Programmatic/Individual Categorical Exclusion

X	PCE		ICE

Date	**4/23/2021**	Project Number	**J3 – 1692(004)**
County	**Beckham**	State Job Piece No:	**31692(04)**
NEPA Project Manager	**Kate Golden**	Phone Number	**(405) 521-2927**
ODOT Field District	**5**	Bridge NBI No. *(For County & State Projects)* & Location No. *(County Projects Only)*	**Bridge A: NBI No.: 17530 Bridge B: NBI No.: 17529 Bridge C: NBI No.: 14138**
Project Description from JPINFO	**Bridges and approaches on I-40 at Turkey Creek (east and west bound) and Sand Creek east bound, located 16.2 and 19.9 miles east of the Texas state line**		

This project is included in: *(Check all applicable ones)*	X	**State 8 Year Construction Program**
		County 5 Year Construction Program
	X	**State Transportation Improvement Program**
This project has federal funds: *(Check applicable one.)*	X	**Currently has Federal Funds**
		Potential for Future Federal Funds
This project is in the Metropolitan Transportation Improvement Program (If applicable) *(Check applicable one)*		**Yes**
	X	**Not Applicable**

The Oklahoma Department of Transportation (ODOT) has completed the environmental analysis and review of the referenced project. ODOT has determined that this project does not individually or cumulatively have a significant impact of the environment as defined by the National Environmental Policy Act (NEPA) or involve unusual circumstances as defined in 23 CFR 771.117(b) and is therefore excluded from the requirements to prepare an Environmental Assessment or Environmental Impact Assessment.

Existing Conditions:

The existing I-40 westbound bridge (Bridge A: NBI# 17530) over Turkey Creek is a 38 ft. wide bridge with an approach roadway consisting of two 12 ft. wide paved driving lanes and 10 ft. wide outside and 4 ft. wide inside paved shoulders. Bridge A has a sufficiency rating of 84.8 and is at risk of becoming structurally deficient due to the rating of 5 on superstructure and substructure. The existing I-40 eastbound bridge (Bridge B: NBI# 17529) over Turkey Creek is a 38 ft. wide bridge with an approach roadway consisting of two 12 ft. wide paved driving lanes and 10 ft. wide outside and 4 ft. wide inside paved shoulders. Bridge B has a sufficiency rating of 84.8 and is at risk of becoming structurally deficient due to the rating of 5 on superstructure and substructure. The existing eastbound I-40 bridge (Bridge C: NBI# 14138) over Sand Creek is a 38 ft. wide bridge with an approach roadway consisting of two 12 ft. wide paved driving lanes and 10 ft. wide outside and 4 ft. wide inside paved shoulders. Bridge C has a sufficiency rating of 95.9 and is not deficient. This is a 4-lane divided highway with a 70 ft. wide

sod median. The current Annual Average Daily Traffic (AADT) is 13,600 vehicles per day (vpd) with a future 20-year AADT of 18,000 vpd.

Purpose & Need

To correct one narrow bridge and two at risk of becoming structural deficient bridges.

Alternatives considered & Proposed Improvement

The proposed improvements consist of replacing the existing three bridges on the existing alignment. The existing bridge over Turkey Creek (Bridge A: NBI# 17530) will be replaced with a 39 ft. wide bridge on the existing alignment. The existing bridge over Turkey Creek (Bridge B: NBI# 17529) will be replaced with a 39 ft. wide bridge on existing alignment. The existing bridge over Sand Creek (Bridge C: NBI#14138) will be replaced with a 38 ft wide bridge on existing alignment. The approaches will consist of two 12 ft. wide paved driving lanes with 10 ft. wide outside and 4 ft. wide inside paved shoulders. The median will vary along the project extents. Crossover detours will be constructed in the median on both sides of the bridges in order to maintain traffic during construction. No additional right of way will be needed for construction.

Did the project have public involvement *(Check the applicable items and include public involvement summary and supporting documents in the appendix)*

	Property Owner Notification			Road Closure Letter			Public/Stakeholder Meeting
	Legal Notice/Website Posting			Small City Letter		**X**	None

All documentation, analyses, and agency coordination regarding this Categorical Exclusion are attached to this document and maintained in the project file at the Oklahoma Department of Transportation, Environmental Programs Division.

Criteria Identified in Section IV.A.1.b. of the 2019 FHWA/ODOT Programmatic Agreement for Processing Categorical Exclusions that would require Individual Review and Approval by FHWA:
Check Yes or No below. If the answer to any of the questions below is Yes, an Individual CE will be required.

	Description/Question	**Yes**	**No**
i.	Does the project result in capacity expansion of a roadway by addition of through lanes?		**X**
ii.	Does the project involve any permanent changes limits of access control or to the operation of an Interstate highway, associated interchanges or ramps or requires an Access Justification Report (AJR)?		**X**
iii.	Is the project not include in or is inconsistent with the statewide transportation improvement program, and in applicable urbanized areas, the transportation improvement program?		**X**
iv.	Does the project involve acquisition of more than minor right-of-way not adjacent to the existing facility?		**X**
v.	Does the project involve residential or commercial relocation?		**X**
vi.	Does the project include acquisition of land for hardship or protective purposes, or early acquisition pursuant to Federal acquisition project (23 U.S.C. § 108(d))		**X**
vii.	Does the project have potential for disproportionately high and adverse impact on minority or low income populations, based on known demographics in the project vicinity, extent of R/W, relocations, and other identified impacts?		**X**
viii.	Does the project involve property in which another Federal Agency or Federally Recognized Tribe has ownership, oversight or any other encumbrance?		**X**
ix.	Does the project involve a determination of adverse effect by Oklahoma State Preservation Office (SHPO) or a designated Tribal Historic Preservation (THPO) in accordance with		**X**

Criteria Identified in Section IV.A.1.b. of the 2019 FHWA/ODOT Programmatic Agreement for Processing Categorical Exclusions that would require Individual Review and Approval by FHWA: **Check Yes or No below. If the answer to any of the questions below is Yes, an Individual CE will be required.**			
Description/Question		**Yes**	**No**
	Section 106?		
x.	Does the project involve a Programmatic Section 4(f) or de minimis finding which has not been previously approved by FHWA?		**X**
xi.	Requires the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act of 1965 (54 U.S.C. § 200305), the Federal Aid in Sport Fish Restoration Act (16 U.S.C. 777-777k, 64 Stat. 430), the Federal Aid in Wildlife Restoration Act (16 U.S.C. 669-669i; 50 Stat. 917), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property		**X**
xii.	Does the project involve any impact on Noise Abatement Criteria (NAC) Category A, B, C or D receptors?		**X**
xiii.	Does the project involve a finding of "may effect, likely to adversely affect" determination under Section 7 of the Endangered Species Act or the Bald and Gold Eagle Protection Act and can be processed as under programmatic agreement?		**X**
	a. Does the project involve a Section 7 Formal Consultation Process prior to start of construction?		**X**
xiv.	Does the project require an Individual Section 404 Permit (This is generally for major River Crossings, waters or wetlands impact greater than 3.0 AC, Projects with Formal Consultation, structures on new alignment or others as determined by USACE.)?		**X**
xv.	Does the project involve construction across or adjacent to a river designated as a component in the National System of Wild and Scenic Rivers?		**X**
xvi.	Does the project require a Coast Guard Permit?		**X**
xvii.	Does the project involve an adverse impact on prime farmland where Natural Resources Conservation Agency (NRCS) has required consideration of alternatives and measures to avoid and minimize impacts?		**X**
xviii.	Does the project involve increase to the base 100 Year floodplain in a regulatory floodway (Zone A-E in a FEMA Map) that will require a flood map revision as determined by the appropriate state or local authority?		**X**
xix.	Does the project not conform to the State Implementation Plan which is approved or promulgated by the U.S. Environmental Protection Agency in air quality non-attainment areas		**X**
xx.	Does the project involve any known Superfund site?		**X**
xxi.	If the project involves road or bridge closure or ramp closure, do any of the following conditions apply? (Check the boxes ONLY if the project involves road closure)		
	a. No Access will be provided to local traffic or posted		
	b. Through traffic dependent businesses will be affected		
	c. The detour or closure will substantially alter the environmental consequences of the action, such as by creating unsafe conditions on the detour route or requiring additional work or expansion to detour routes to carry the additional traffic.		
	d. There is a public controversy associated with the detour or closure		
	e. The detour closure will interfere with special events or activities		
xxii.	Does the project have substantial public or agency controversy on environmental grounds?		**X**

Explanation for Individual CE (If any of the answers above are YES):	
Item for which the answer is YES	
Explanation that CE Classification is appropriate	

Item for which the answer is YES	
Explanation that CE Classification is appropriate	

Pre-Construction Commitments:

The action may involve work in potentially jurisdictional waters and potentially jurisdictional wetlands. For State Projects, the 404 permit application form needs to be submitted by the Designer through Project Management Division to Environmental Programs Division at the time of Right-of-Way submittal for evaluation and determination of the appropriate Clean Water Act Section 404 permit application for the project.

Right-of-Way and Utility Commitments

The following Construction Commitments requiring avoidance, restrictions or minimization of natural and human resources during Right-of-Way clearance and Utility relocation activities will be discussed with the Right-of-Way and Utility Owners at the start of Right-of-Way and Utility Process.

Construction Commitments

ODOT Commitment: All operators, employees, and contractors will be made aware of all environmental commitments.

The following plan notes requiring avoidance, restrictions or minimization of natural and human resources in the project and off-site project areas will be added to the final project plans under "Environmental Mitigation Notes" per policy Directive C-201-2.

Cultural Resources Avoidance Note:

Locations outside the project area in the following area must not be utilized for borrow, equipment staging, haul road, spoil dumps or any off-site project related activity.

T9N R24W

Section 10: SE ¼ SE ¼
Section 11: NW ¼ SW ¼
Section 15: N ½ NE ¼
Section 15: E ½ NW ¼
Section 15: SW ¼ SE ¼

Conservation Commitments:

Tree Removal Minimization Commitment: 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, during the design of the project. Tree removal will be limited to that specified in the project plans provided to contractors.

Species Plan Notes

Non-Compliance: Failure to implement the commitments specified in the Plan Notes can result in non-compliance issues on the project. Work activities may be suspended on the project, for an undetermined duration, while working with regulators to bring the project back into compliance. The contractor will not be compensated for time lost.

Water Quality Conservation: Appropriate Best Management Practices to minimize impacts from storm water discharges and sedimentation in streams, as established by the Oklahoma Department of Environmental Quality, shall be conscientiously implemented throughout the proposed construction periods, in order to minimize any potential impacts to any listed species. 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 outside of the ordinary high water mark (OHWM). 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. Preventative measure must be taken to prohibit the discharge of contaminants into any surface waters.

Whooping Crane Plan Note: If Whooping Cranes are seen at or within one mile of the proposed work site, the Resident Engineer shall immediately contact the ODOT Biologist. If there is a confirmed sighting and/or Whooping Cranes are observed within one mile of the proposed work site, all construction activities shall cease until it is determined that Whooping Cranes have left the project vicinity without being harassed.

Bald Eagle Note: Suitable nesting, roosting or foraging habitat for the Bald Eagle occurs within the project's action area. The Bald Eagle nesting season in Oklahoma extends from September 16, through May 31. The Resident Engineer shall contact the ODOT Biologist to schedule a nest survey. Nest search surveys can only be conducted when leaves are not on the trees typically between December 1st and February 28th. No work may occur within suitable Bald Eagle habitat, located the full extent of the Sand Creek portion of the project, during the nesting season (September 16, through May 31) until the completion of the survey by the ODOT Biologist. If nests are observed, a no-work buffer up to a distance of 660 feet shall be placed around the nest. The exact distance of the buffer zone shall be established by the ODOT Biologist in consultation with US Fish and Wildlife Services. If the buffer cannot be maintained, all clearing, external construction and landscaping activities, within the buffer, 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 March 1 to August 31. Migratory bird nesting use of the Sand Creek bridge (NBI:14138), Turkey Creek bridges (NBI:17529 & 17530), and NS-185 bridge over I-40 (NBI:17562) was observed. Painting, repair, retrofit, rehabilitation or demolition of the existing bridges and culverts shall be conducted between September 1, and February 28, when migratory bird nests are not occupied. If painting, repair, retrofit, rehabilitation or demolition cannot be completed between September 1 and February 28, the bridges shall be protected from new nest establishment prior to March 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 March 1. Methods other than netting must be pre-approved by the ODOT Biologist.
Although no nests were observed on all other structures, the birds may occupy the structures in the future. The Resident Engineer shall contact the ODOT Biologist if any bird use of these structures is observed. If birds are observed then painting, repair, retrofit, rehabilitation or demolition of the existing bridges shall be conducted between September 1, and February 28 (when migratory bird nests are not occupied).

Species (choose those that apply)	**Seasonal Restriction Period**
Bald Eagle	September 16 – May 31

Migratory Birds: Swallows and Phoebes (NESTS PRESENT)	March 1 – August 31

The Environmental Programs Division shall provide **the final plan sheet with the mitigation notes** to the Designer for inclusion in Final Plans and keep a copy for the project records. The mitigation measures above should be discussed at all Pre-work conferences per Policy Directive C-201-2.

All documentation, analyses, and agency coordination regarding this Categorical Exclusion are contained in a Supporting Appendix maintained in the project file at the Oklahoma Department of Transportation, Environmental Programs Division.

Development of the project including coordination and assessment of potential social, economic and environmental impacts has been considered in accordance with DOT ORDER 5610.1C, and CEQ REGULATIONS 40 CFR 1500 - 1508 as amended, 23 CFR 771.117 and the 2019 FHWA/ODOT Programmatic Agreement for processing of categorical exclusions. Implementation of this action as a "Categorical Exclusion" will satisfy the requirements of the National Environmental Policy Act.

Preparer/Reviewer Signatures

Angela Aikman	5/3/2021
Environmental Consultant Project Manager (If Applicable)	Date
C. H. Guernsey & Company	5/3/2021
Environmental Consultant Firm Name (If Applicable)	Date
County Commissioner or City Manager (For Local Government Projects)	Date
Kate Golden	Digitally signed by Kate Golden Date: 2021.05.03 10:45:53 -04'00'
ODOT Environmental Project Manager	Date
Assistant Environmental Programs Division Engineer	Date
Sivanuja S Sundaram	Digitally signed by Sivanuja S Sundaram Date: 2021.05.03 10:12:04 -05'00'
Environmental Programs Division Engineer	Date

CONCLUSION:

ODOT has reviewed the conditions identified in Section IV.A.1.b of Federal Highway Administration 2019 (FHWA)/ODOT Programmatic Agreement for Processing Categorical Exclusions (CE) and determined that an Individual CE must be submitted to FHWA for approval.		**YES**
	X	**NO**

For Individual CEs requiring FHWA Approval:

Concurrence that this project qualifies for a Categorical Exclusion:

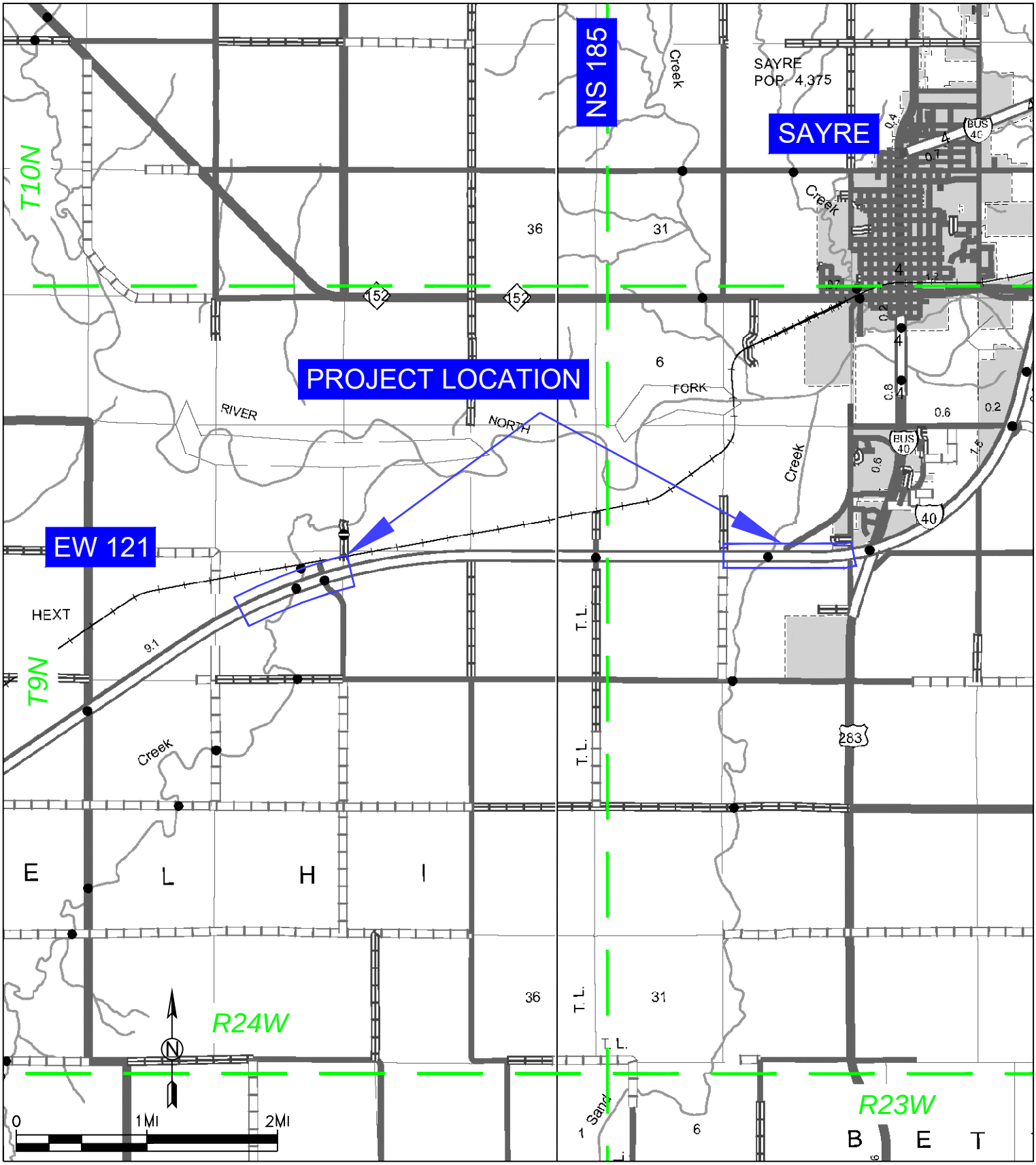
Environmental Programs Manager, FHWA	Date

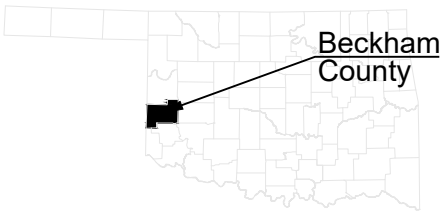
Attachments:

1. Location Map
2. Current Plans and Study Footprint
3. Studies and Coordination
4. Other Section – Initiation and Inspection Reports/NEPA Submittal Checklist, NEPA Oracle Status Report, QA/QC Checklist

Distribution List (Check Applicable Ones)

X	Project Management Division (All State Projects)
X	Roadway Design Division (All State projects with the exception of projects from Traffic Division and Special Projects)
X	Bridge Division (All State Bridge Projects)
	Traffic Division (For projects from Traffic Division)
	Local Government Division (County, City, TAP or Special Projects)
X	Field Division Engineer (All Projects)
X	Right-of-Way Division (All Projects)
X	Office Engineer Division (All Projects)
	Noise Specialist (For projects with noise studies)
X	FHWA (For All Projects- Place Copy of Complete Document in the Document Vault)





NEPA Study Area

J/P 31692(04) I-40: REPLACE BRIDGES OVER TURKEY CR(EAST & WEST BOUND) AND SAND CR EAST BOUND, LOCTED 16.2 & 19.9 MILES EAST OF THE TEXAS STATE LINE

Oklahoma Department of Transportation

RIGHT-OF-WAY PLANS OR FINAL PLANS AND

NEPA STUDY FOOTPRINT OR STUDY PLANS

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

INTERSTATE HIGHWAY

FEDERAL AID PROJECT NO. NHPPI-4000-(099) EC
BRIDGE & APPROACHES
INTERSTATE 40 OVER TURKEY CREEK AND SAND CREEK

BECKHAM COUNTY

CONTROL SECTION NO. 40-05-01
STATE JOB NO. 31692(04)

BRIDGE "A" LOCATION NO. 0501 1622NX | EXIST. NBI NO. 17530 | NEW NBI NO. 32843
BRIDGE "B" LOCATION NO. 0501 1622SX | EXIST. NBI NO. 17529 | NEW NBI NO. 32842
BRIDGE "C" LOCATION NO. 0501 1998SX | EXIST. NBI NO. 14138 | NEW NBI NO. 32834

FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEETS.

INDEX OF SHEETS

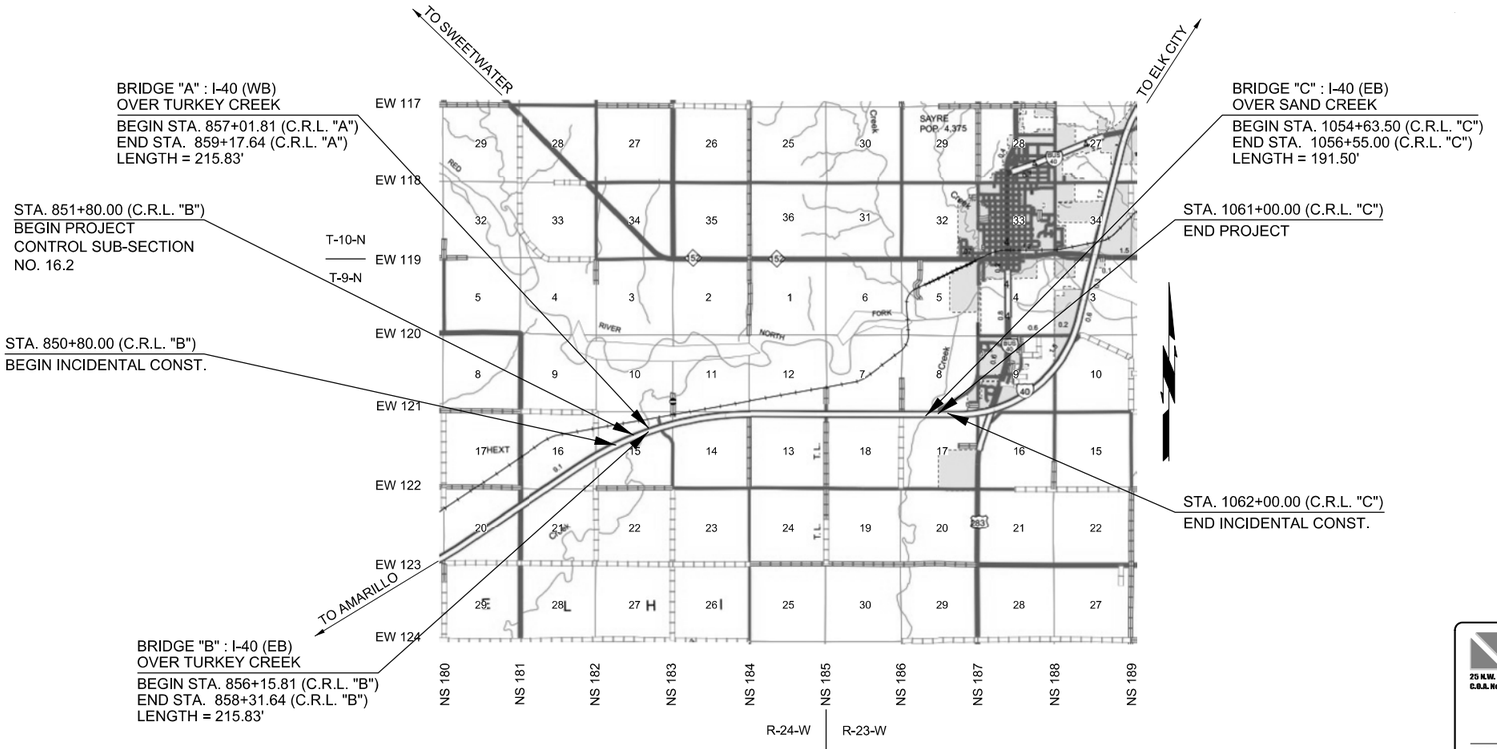
DESIGN DATA

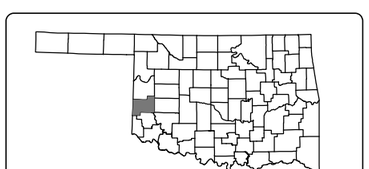
ADT 2025	= 13,600
ADT 2045	= 18,000
DHV (X-WAY)	= XXX
K (DHV/ADT)	= 9%
D	= 54%
T (% ADT)	= 45%
T (% DHV)	= 43%
T^3(% ADT)	= 40%
V	= 75 MPH
20 YR FLEX ESALS	= X.XXM

SCALES	1"
PLAN	1" = 50'
PROFILE HOR.	1" = 50'
VER.	1" = 5'
LAYOUT MAP	1" = 5280'

CONVENTIONAL SYMBOLS

- ASPHALT CONCRETE - ROADWAY
- ASPHALT CONCRETE - SHOULDER
- PAVEMENT REMOVAL
- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OIL WELL
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- RIGHT-OF-WAY LINES - EXISTING
- RIGHT-OF-WAY LINES - NEW
- CONTROLLED ACCESS
- RIGHT-OF-WAY FENCE




LOCATION MAP

PROJECT LENGTH BASED ON I-40 EASTBOUND (C.R.L. "B" AND C.R.L. "C") STATIONING

ROADWAY LENGTH	2027.66 FT.	0.384 MI.
BRIDGE LENGTH	407.33 FT.	0.077 MI.
PROJECT LENGTH		0.461 MI.

2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - ENGLISH GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, DECEMBER 18, 2019.

PROPOSED
R/W
03-31-2021

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

MacArthur Associated Consultants
25 N.W. 146th Street – Edmond, OK 73013 – 405.848.2471
C.O.A. No. 699 Renewal Date: 06-30-21

REGISTERED PROFESSIONAL ENGINEER
GREGORY LYNN FITTER
15070
OKLAHOMA

GREGORY L. FITTER, P.E. OKLA. REG. NO. 15070 (BRIDGES "A", "B" & "C") DATE

MacArthur Associated Consultants
25 N.W. 146th Street – Edmond, OK 73013 – 405.848.2471
C.O.A. No. 699 Renewal Date: 06-30-21

REGISTERED PROFESSIONAL ENGINEER
KENNETH R. GILLESPIE
20104
OKLAHOMA

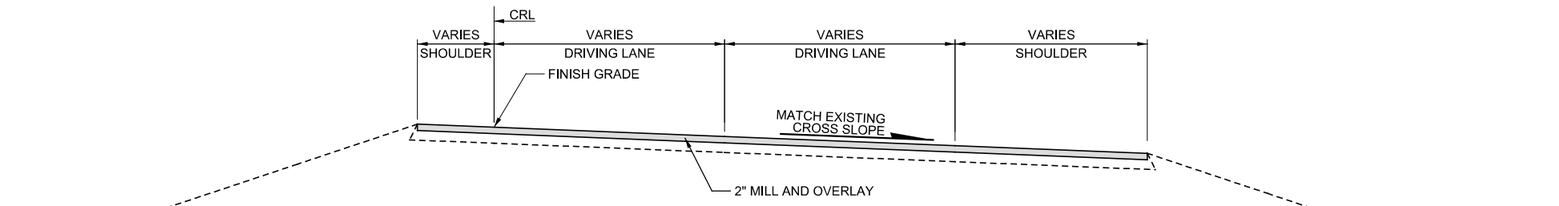
KENNETH R. GILLESPIE, P.E. OKLA. REG. NO. 20104 (ROADWAY) DATE

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

SWO 5272(1) PROJECT NO. 31692(04) SHEET NO. 0001

PRINT DATE: 3/31/2021 T:\1919\19-19ALDrawings\1919A-TTle.dgn

PROPOSED
R/W
3-31-2021



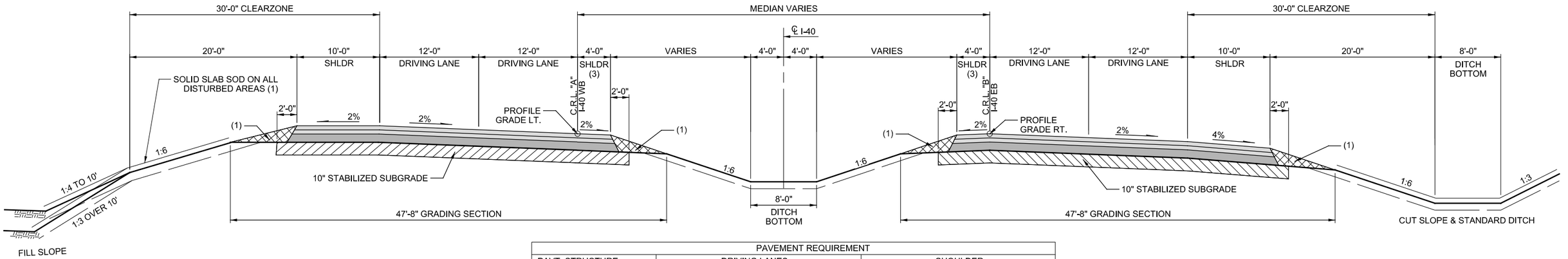
PAVT. STRUCTURE	24' DRIVING LANES	4' OR 10' SHOULDERS
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 76-28 OK)	2" SUPERPAVE TYPE S4 (PG 76-28 OK)
INTERMEDIATE COURSE		

TYPICAL HALF SECTION NO. 1 (TURKEY CREEK)

N.T.S.

C.R.L. "A" (WB I-40)
STA. 855+45.00 TO STA. 856+45.00
STA. 863+40.00 TO STA. 864+40.00

C.R.L. "B" (EB I-40)
STA. 850+80.00 TO STA. 851+80.00
STA. 859+15.00 TO STA. 860+15.00



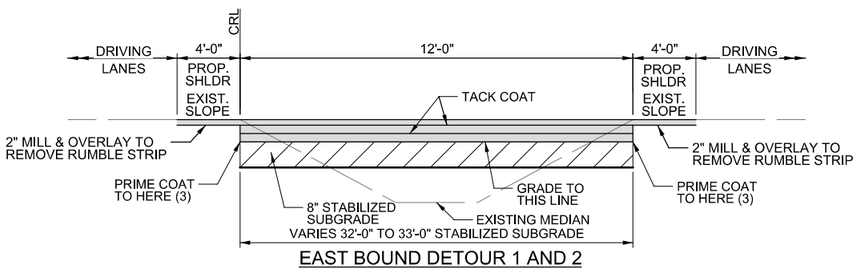
PAVEMENT REQUIREMENT		
PAVT. STRUCTURE	DRIVING LANES	SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)
	4" SUPERPAVE TYPE S3 (PG 64-22 OK)	4" SUPERPAVE TYPE S3 (PG 64-22 OK

TYPICAL SECTION NO. 2 (TURKEY CREEK)

N.T.S.

C.R.L. "A" (WB I-40)
STA. 856+45.00 TO STA. 863+40.00

C.R.L. "B" (EB I-40)
STA. 851+80.00 TO STA. 859+15.00

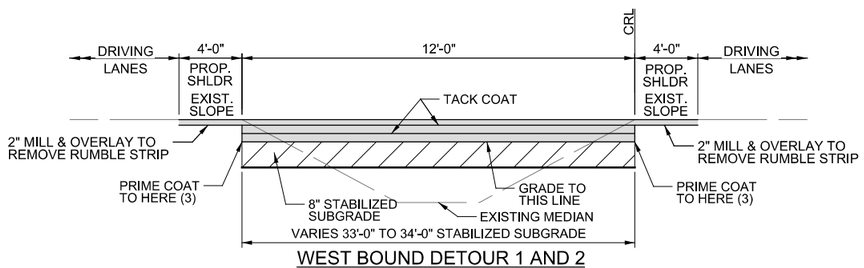


EAST BOUND DETOUR 1 AND 2

N.T.S.

PAVEMENT REQUIREMENT		
PAVT. STRUCTURE	DRIVING LANES	SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 76-28 OK)	2" SUPERPAVE TYPE S4 (PG 76-28 OK)
BASE COURSE	3.5" SUPERPAVE TYPE S3 (PG 76-28 OK)	
	3.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	

ALONG CL SURVEY I-40
STA. 837+62.00 TO STA. 847+29.50
STA. 870+28.00 TO STA. 879+32.96



WEST BOUND DETOUR 1 AND 2

N.T.S.

PAVEMENT REQUIREMENT		
PAVT. STRUCTURE	DRIVING LANES	SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 76-28 OK)	2" SUPERPAVE TYPE S4 (PG 76-28 OK)
BASE COURSE	3.5" SUPERPAVE TYPE S3 (PG 76-28 OK)	
	3.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	

ALONG CL SURVEY I-40
STA. 837+62.00 TO STA. 847+29.78
STA. 870+28.00 TO STA. 879+32.77

(1) BACKFILL NOTE:
TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD APPROX. 5" THICK FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR TYPE A-SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS DIAGRAM.

(3) PRIME COAT AT A RATE OF 0.35 GAL/SY OVER SUBGRADE UPON COMPLETION OF STABILIZATION.

I-40 OVER TURKEY CREEK — BECKHAM CO.

DESIGN	IUA	
DRAWN	ISFM	
CHECKED	XXX	
APPROVED		
SQUAD	MacArthur	

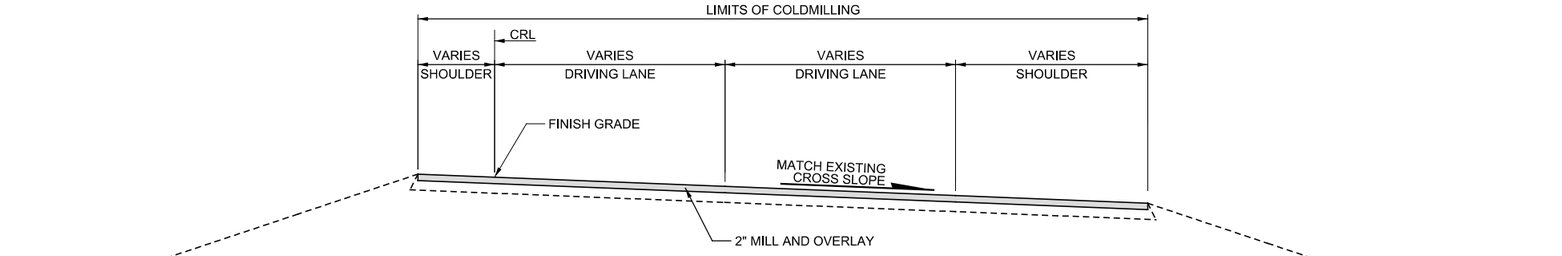
OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION (1)

STATE JOB NO. 31692(04) SHEET NO. 0002

PRINT DATE: 3/31/2021 T:\1919A\Drawings\Roadway\1919A-Typ 01.dgn

PROPOSED
R/W
3-31-2021

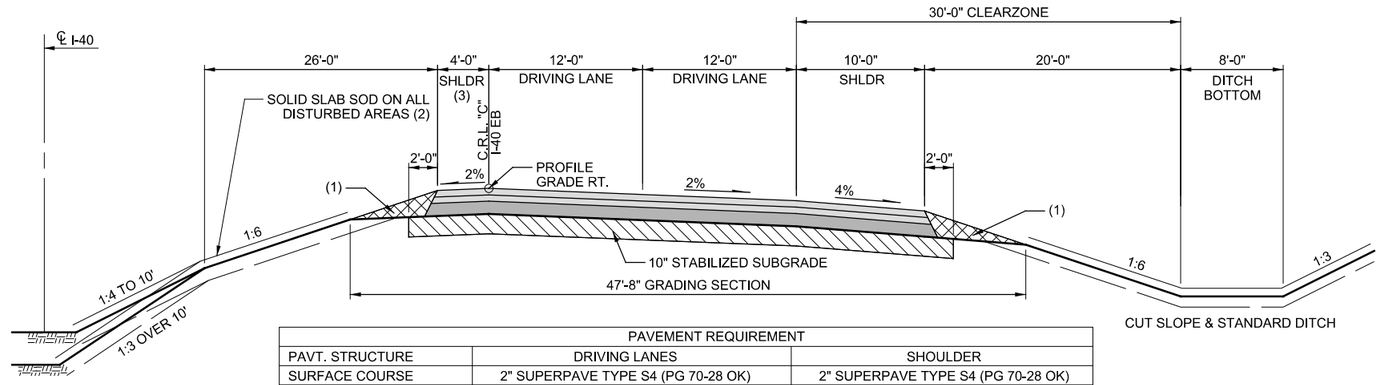


PAVT. STRUCTURE	24' DRIVING LANES	4' OR 10' SHOULDERS
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 76-28 OK)	2" SUPERPAVE TYPE S4 (PG 76-28 OK)
INTERMEDIATE COURSE		

TYPICAL HALF SECTION NO. 3 (SAND CREEK)

N.T.S.

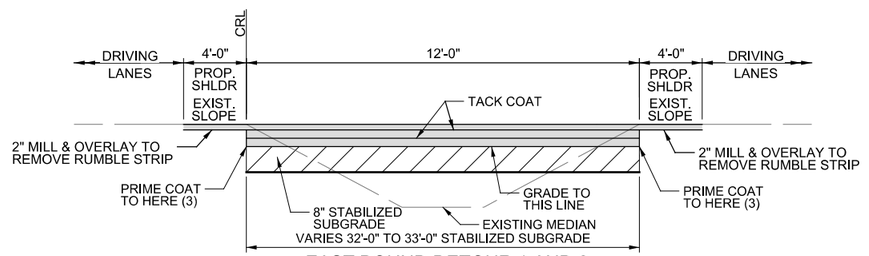
C.R.L. "C" (EB I-40)
STA. 1043+00.00 TO STA. 1044+00.00
STA. 1061+00.00 TO STA. 1062+00.00



PAVEMENT REQUIREMENT		
PAVT. STRUCTURE	DRIVING LANES	SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)
	4" SUPERPAVE TYPE S3 (PG 64-22 OK)	4" SUPERPAVE TYPE S3 (PG 64-22 OK

TYPICAL SECTION NO. 4 (SAND CREEK)

N.T.S.
C.R.L. "C" (EB I-40)
STA. 1044+00.00 TO STA. 1054+14.26
STA. 1056+86.93 TO STA. 1061+00.00



EAST BOUND DETOUR 1 AND 2

N.T.S.

PAVEMENT REQUIREMENT		
PAVT. STRUCTURE	DRIVING LANES	SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 76-28 OK)	2" SUPERPAVE TYPE S4 (PG 76-28 OK)
BASE COURSE	3.5" SUPERPAVE TYPE S3 (PG 76-28 OK)	
	3.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	

ALONG CL SURVEY I-40
STA. 1034+40.00 TO STA. 1041+30.41
STA. 1064+28.00 TO STA. 1071+18.49

(1) BACKFILL NOTE:
TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD APPROX. 5" THICK FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR TYPE A-SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS DIAGRAM.

(3) PRIME COAT AT A RATE OF 0.35 GAL/SY OVER SUBGRADE UPON COMPLETION OF STABILIZATION.

I-40 OVER SAND CREEK BECKHAM CO.

DESIGN	IUA	
DRAWN	ISFM	
CHECKED	XXX	
APPROVED		
SQUAD	MacArthur	

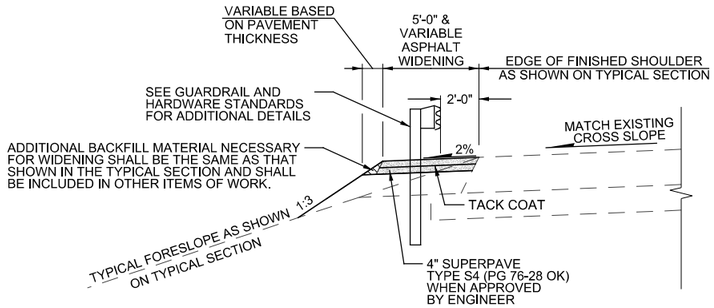
OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION (2)

STATE JOB NO. 31692(04) SHEET NO. 0003

PRINT DATE: 3/31/2021 T:\19198\Drawings\Roadway\19198-Typ 01.dgn

PROPOSED
R/W
3-31-2021

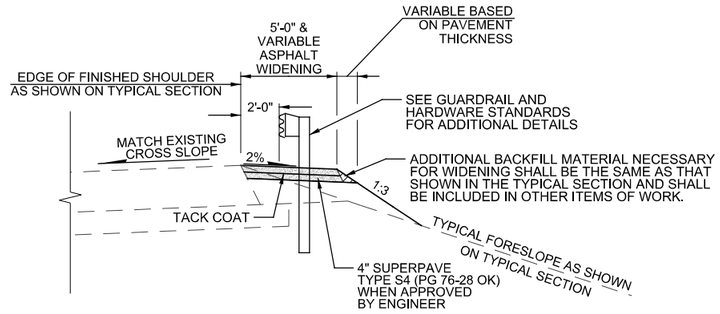


OUTSIDE SHOULDER GUARDRAIL WIDENING TYPICAL DETAIL

EASTBOUND BASELINE (TURKEY CREEK)
STA. 851+80.00 TO STA. 855+51.88

EASTBOUND BASELINE (SAND CREEK)
STA. 1050+56.00 TO STA. 1054+14.26

WESTBOUND BASELINE (TURKEY CREEK)
STA. 859+65.86 TO STA. 863+40.06

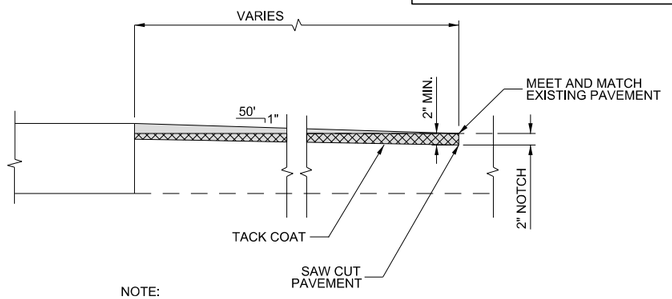


INSIDE SHOULDER GUARDRAIL WIDENING TYPICAL DETAIL

EASTBOUND BASELINE (TURKEY CREEK)
STA. 852+33.00 TO STA. 855+51.88

EASTBOUND BASELINE (SAND CREEK)
STA. 1051+60.44 TO STA. 1054+14.26
STA. 1056+86.93 TO STA. 1057+87.00

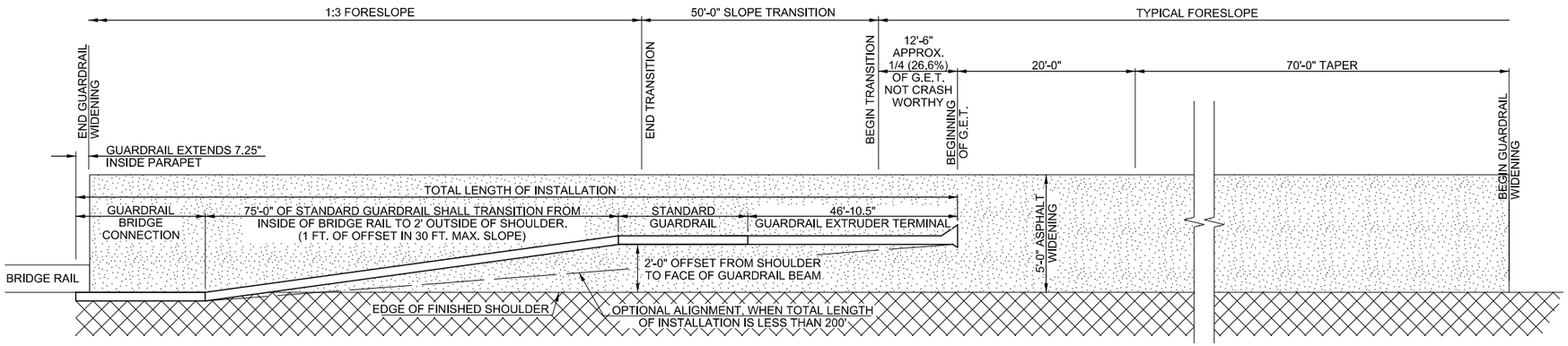
WESTBOUND BASELINE (TURKEY CREEK)
STA. 859+65.86 TO STA. 862+74.98



NOTE:
DEPTH OF MILLING SHALL BE SUFFICIENT TO PROVIDE A 2" MIN. DEPTH OF OVERLAY.

PROFILE OF ASPHALT OVERLAY TRANSITION

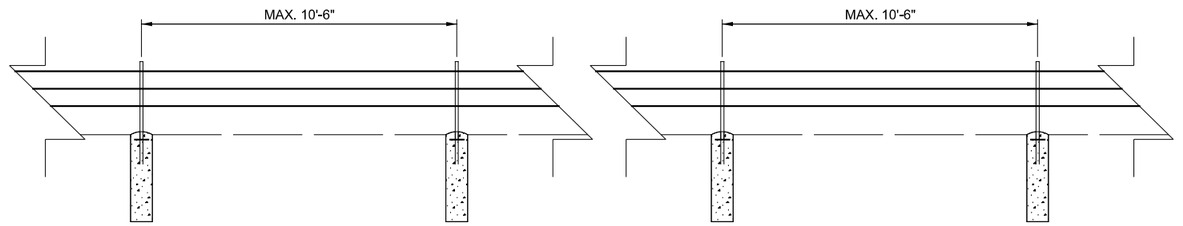
N.T.S.



GUARDRAIL FORESLOPE TRANSITION AND GUARDRAIL WIDENING TAPER DETAIL

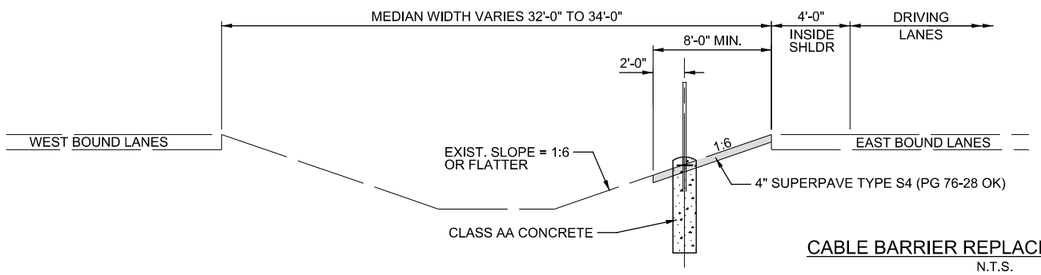
MINIMUM REQUIREMENTS OF CABLE BARRIER SYSTEM:

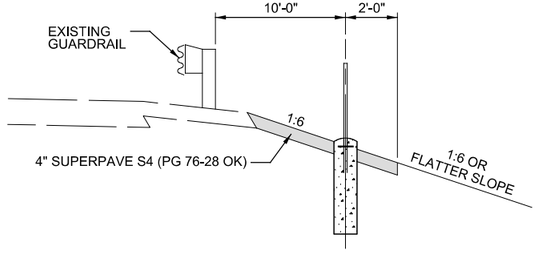
(1) FULLY COMPLIES WITH NCHRP-350 TEST LEVEL 4 (TL-4).
(2) 4 PRE-STRETCHED HIGH TENSION WIRE ROPES.
(3) MAX. OF 8' DEFLECTION.
(4) PLACED ON 1:6 OR FLATTER SLOPE.
(5) MAX. OF 10'-6" POST SPACING.



TYPICAL ELEVATION

N.T.S.





CABLE BARRIER REPLACEMENT DETAIL

N.T.S.

STA. XX+XX.XX TO STA. XX+XX.XX

NOTES:

(1) CONTRACTOR SHALL EXCAVATE AN AREA 8' WIDE AND 4" DEEP ALONG THE INSIDE SHOULDER OF THE EXISTING NORTHBOUND & SOUTHBOUND LANES AS SHOWN IN THE TYPICAL SECTIONS 1 THRU 5. ALL REMOVED MATERIAL IS TO BE PLACED ON THE EXISTING SLOPE AT LOCATIONS DETERMINED BY THE ENGINEER WITHIN THE LIMITS OF THE PROJECT.

(2) THE TRENCHED LOCATIONS SHALL BE FILLED WITH SUPER PAVE TYPE S4 (PG 64-22 OK) IMMEDIATELY AFTER TRENCHING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SOIL EROSION AFTER TRENCHING. SOLID SLAB SOD SHALL BE PLACED ON THE DISTURBED AREAS & ADJACENT TO SUPER PAVE TYPE S4 BASE. ALSO, SOD SHALL BE PLACED THROUGHOUT THE AREA IN WHICH THE SLOPE HAS BEEN CHANGED FROM EXISTING TO 1:6. THE CONTRACTOR SHALL MOBILIZE TO THE PROJECT LOCATION AS MANY TIMES AS NECESSARY FOR PLACEMENT OF SOLID SLAB SOD TO PREVENT EROSION.

(3) CABLE BARRIER BASE SLOPE SHALL NOT BE STEEPER THAN 1:6.

(4) CONTRACTOR SHALL VERIFY SLOPES AND MAKE SURE THAT 1:6 IS MAINTAINED IN ALL AREAS WHERE CABLE BARRIER IS INSTALLED.

I-40 OVER TURKEY CREEK — BECKHAM CO.

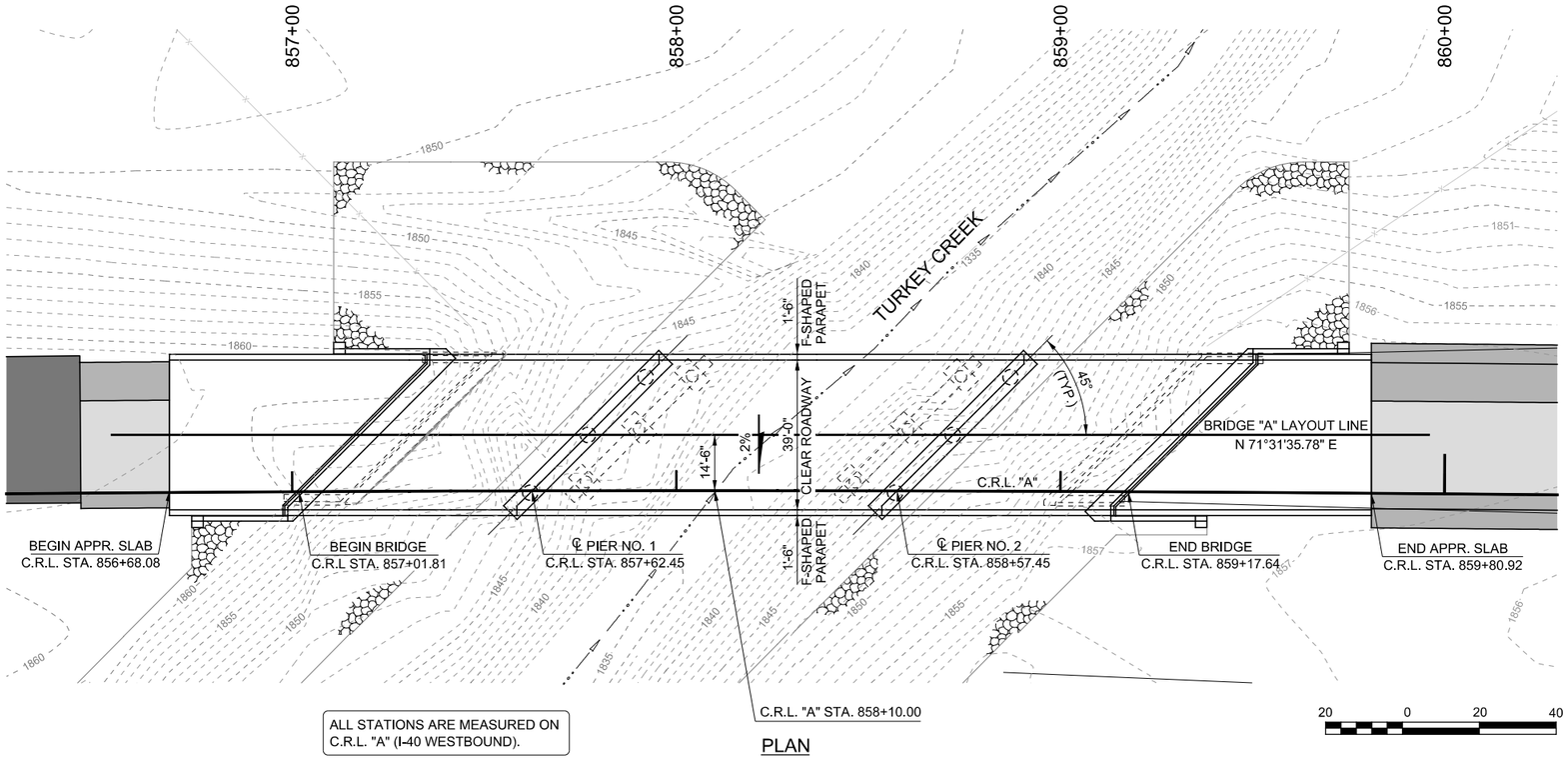
DESIGN	IUA	
DRAWN	ISFM	
CHECKED	XXX	
APPROVED		
SQUAD	MacArthur	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

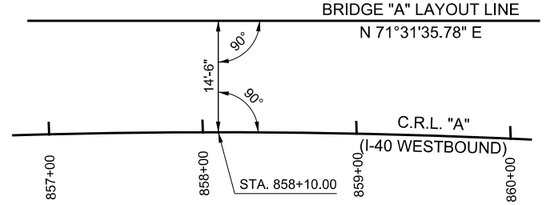
TYPICAL SECTION (3)

STATE JOB NO. 31692(04) SHEET NO. 0004

PRINT DATE: 3/31/2021 T:\1919A\Drawings\Roadway\1919A-Typ 02.dgn

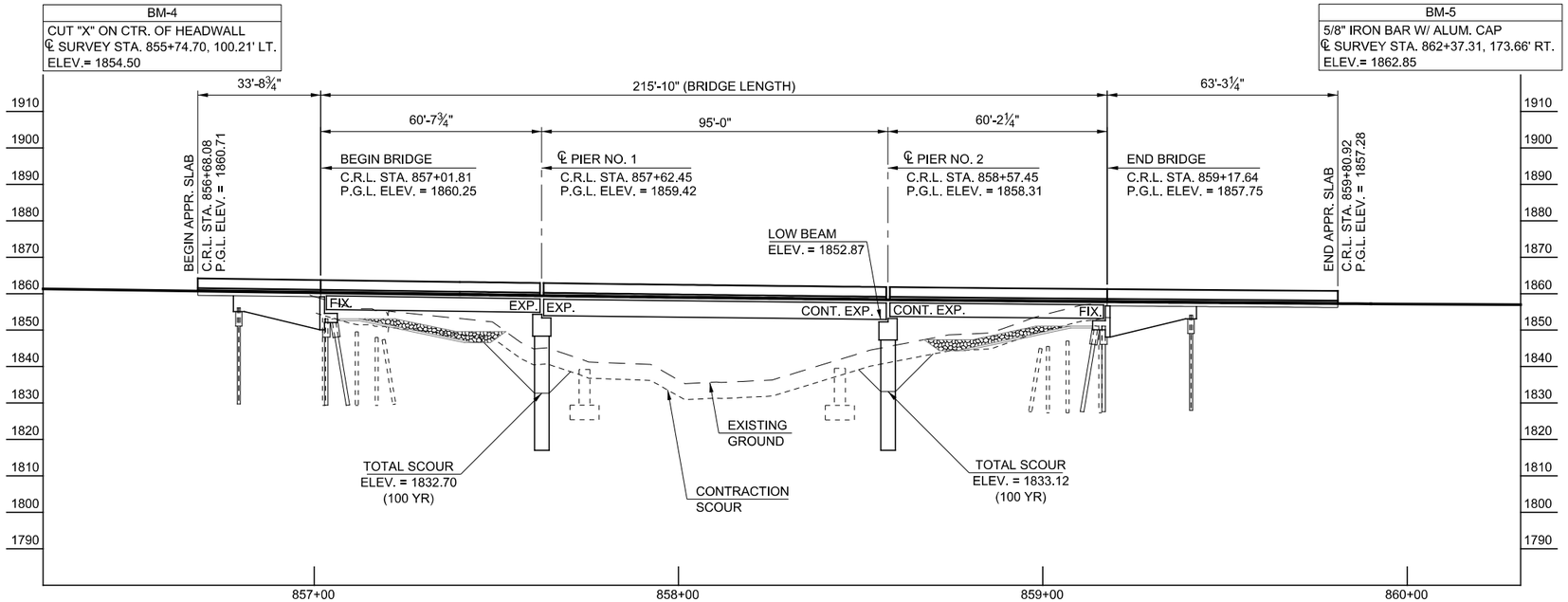


PLAN

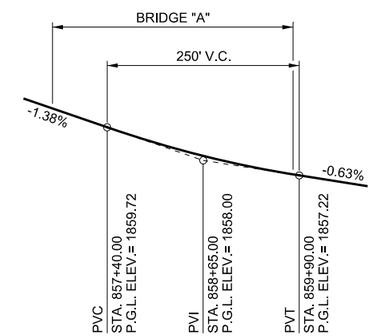


BRIDGE "A" LAYOUT LINE PLAN

PROPOSED
R/W
03-31-2021



ELEVATION



PROFILE GRADE LINE (P.G.L.)
(ALONG C.R.L. "A")

PRELIMINARY PLANS
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

DESIGN	GLF	
DRAWN	ZTF	
CHECKED	GLF	
APPROVED		
SQUAD	MacArthur	

I-40 (WB) OVER TURKEY CREEK — BECKHAM CO.

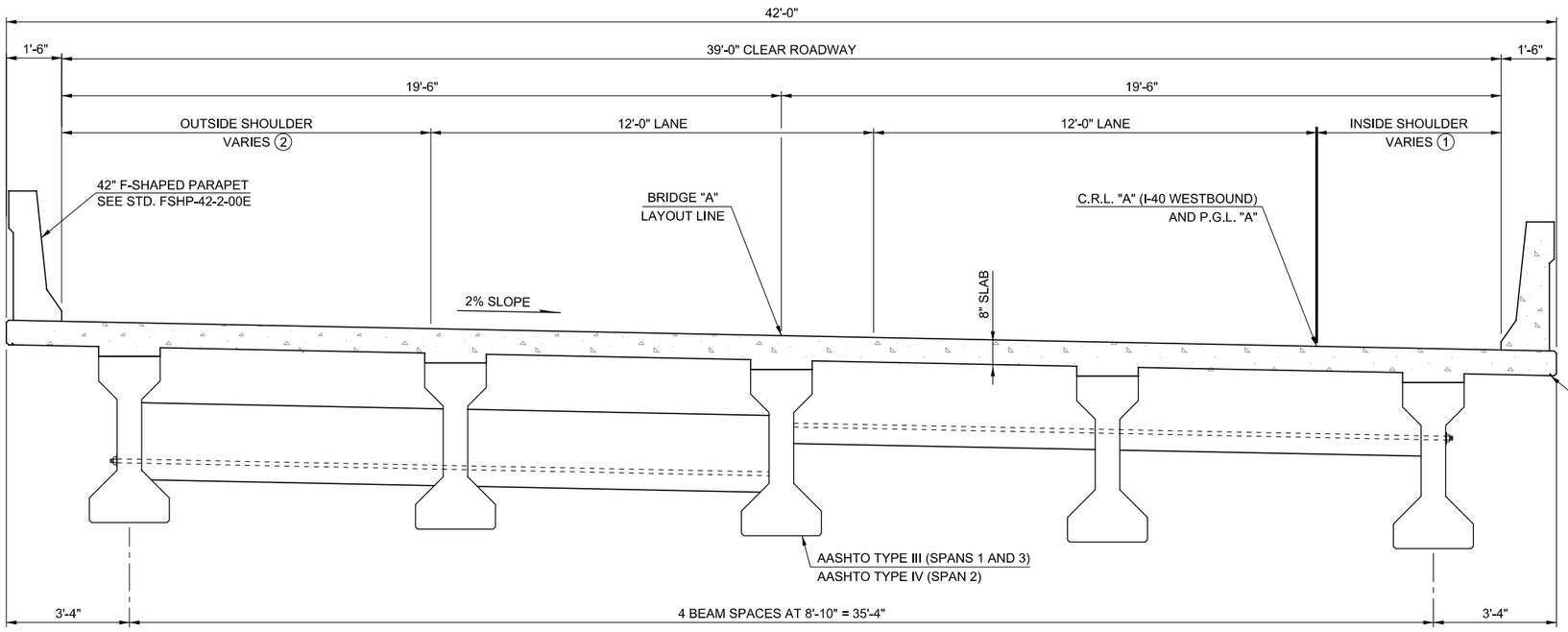
OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION - BRIDGE "A"

60' TYPE III - 95' TYPE IV - 60' TYPE III P.C. BEAM SPANS
39' CLEAR ROADWAY WITH 42" F-SHAPED CONCRETE PARAPETS
45° LF SKEW CENTERLINE BRIDGE STA. 858+10.00

STATE JOB NO. 31692(04) SHEET NO. B001

PRINT DATE: 3/31/2021 T:\19\19-19A\Drawings\Bridge\1919A-gpe01.dgn



HALF SECTION AT INTERMEDIATE DIAPHRAGM

HALF SECTION AT END DIAPHRAGM

(1) INSIDE SHOULDER

VARIES FROM 4'-6 7/16" AT STA. 856+68.08 (BEGIN APPROACH SLAB NO. 1) TO 5'-0" AT STA. 858+10.00 (CENTERLINE BRIDGE).

VARIES FROM 5'-0" AT STA. 858+10.00 (CENTERLINE BRIDGE) TO 4'-3 13/16" AT STA. 859+80.92 (END APPROACH SLAB NO. 2).

(2) OUTSIDE SHOULDER

VARIES FROM 10'-5 9/16" AT STA. 856+68.08 (BEGIN APPROACH SLAB NO. 1) TO 10'-0" AT STA. 858+10.00 (CENTERLINE BRIDGE).

VARIES FROM 10'-0" AT STA. 858+10.00 (CENTERLINE BRIDGE) TO 10'-8 1/16" AT STA. 859+80.92 (END APPROACH SLAB NO. 2).

TYPICAL CROSS SECTION - BRIDGE "A"

PROPOSED
R/W
03-31-2021

PRELIMINARY PLANS
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

DESIGN	GLF	
DRAWN	ZTF	
CHECKED	GLF	
APPROVED		
SQUAD	MacArthur	

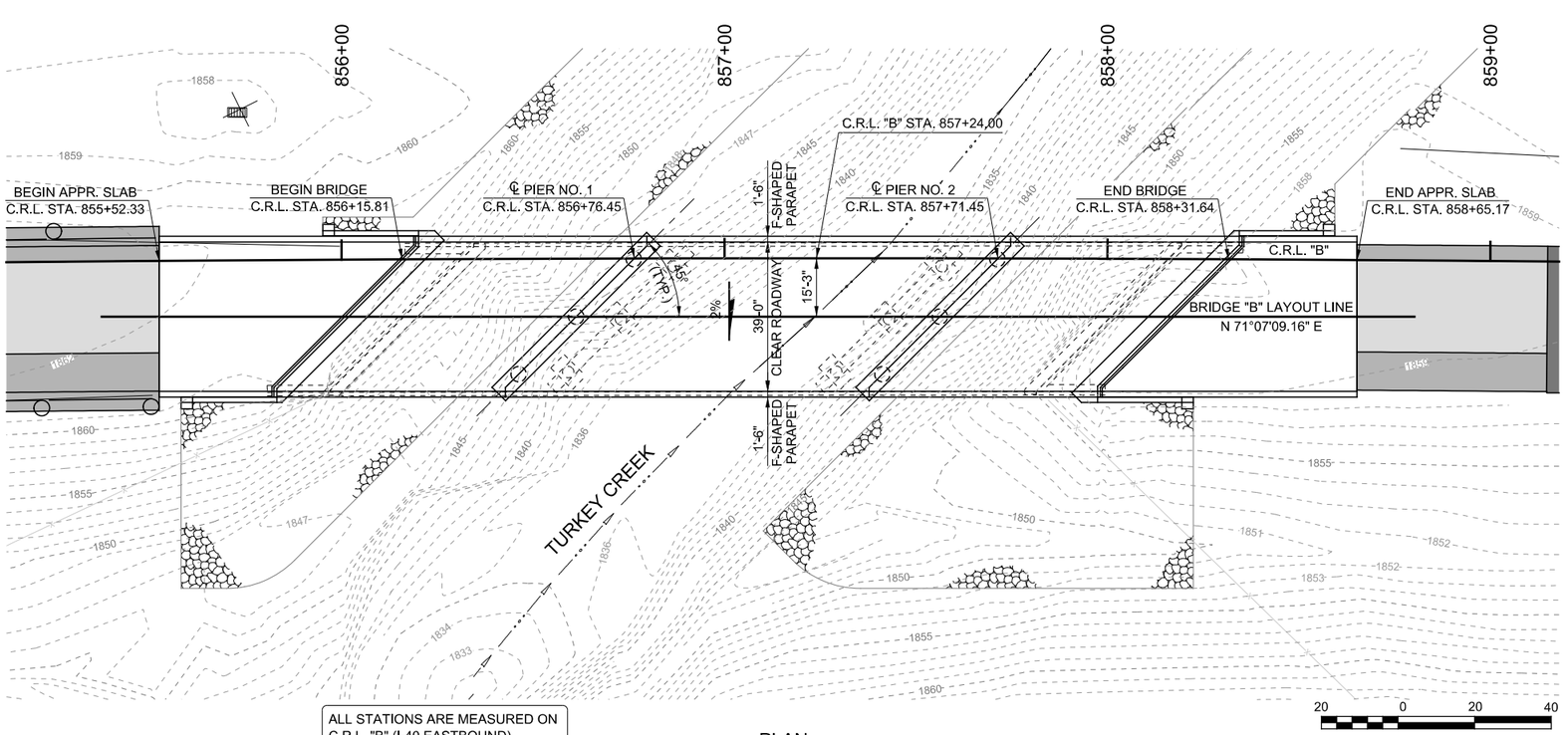
I-40 (WB) OVER TURKEY CREEK — BECKHAM CO.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION - BRIDGE "A"

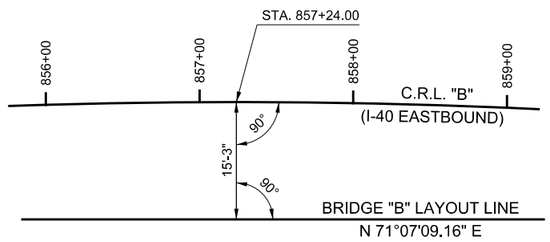
STATE JOB NO. 31692(04) SHEET NO. B003

PRINT DATE: 3/31/2021 T:\1919\19-19AD\rawings\Bridge\1919A-super01.dgn



ALL STATIONS ARE MEASURED ON C.R.L. "B" (I-40 EASTBOUND).

PLAN



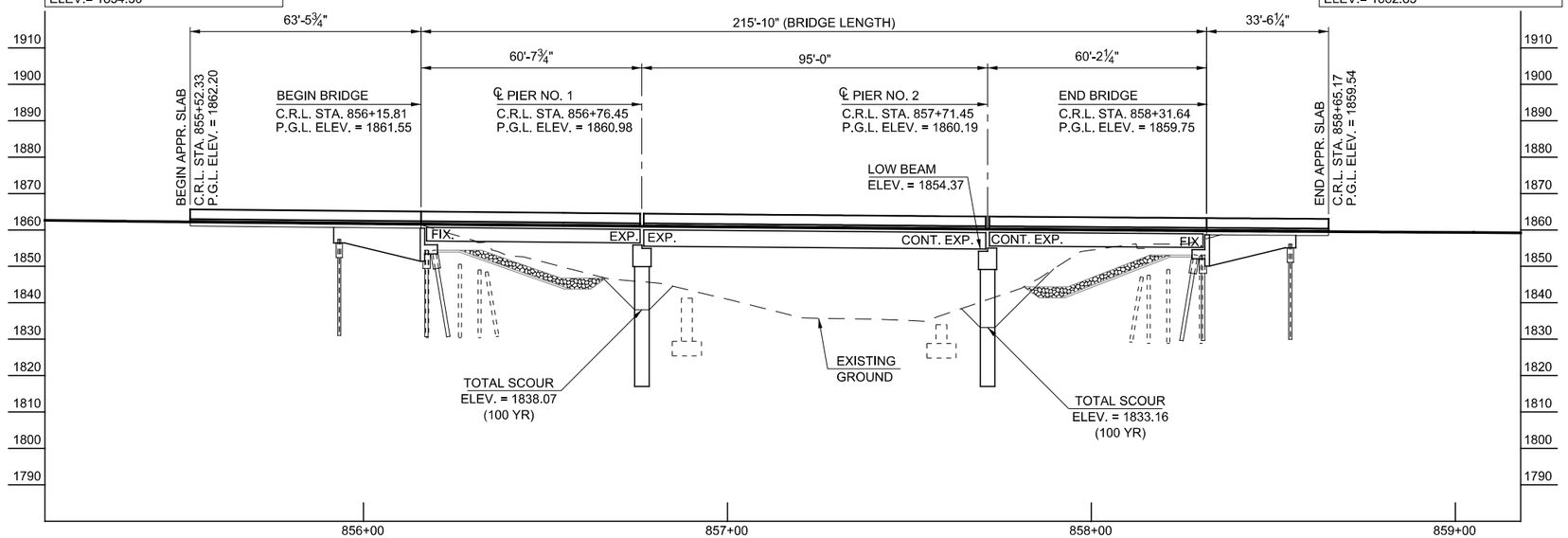
BRIDGE "B" LAYOUT LINE PLAN

PROPOSED R/W

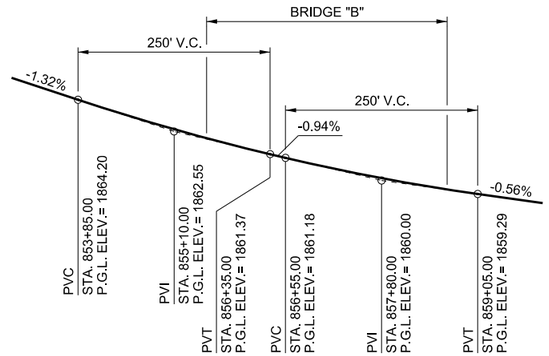
03-31-2021

BM-4
CUT "X" ON CTR. OF HEADWALL ℄ SURVEY STA. 855+74.70, 100.21' LT. ELEV.= 1854.50

BM-5
5/8" IRON BAR W/ ALUM. CAP ℄ SURVEY STA. 862+37.31, 173.66' RT. ELEV.= 1862.85



ELEVATION



PROFILE GRADE LINE (P.G.L.)

(ALONG C.R.L. "B")

PRELIMINARY PLANS

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

DESIGN	GLF	
DRAWN	ZTF	
CHECKED	GLF	
APPROVED		
SQUAD	MacArthur	

I-40 (EB) OVER TURKEY CREEK — BECKHAM CO.

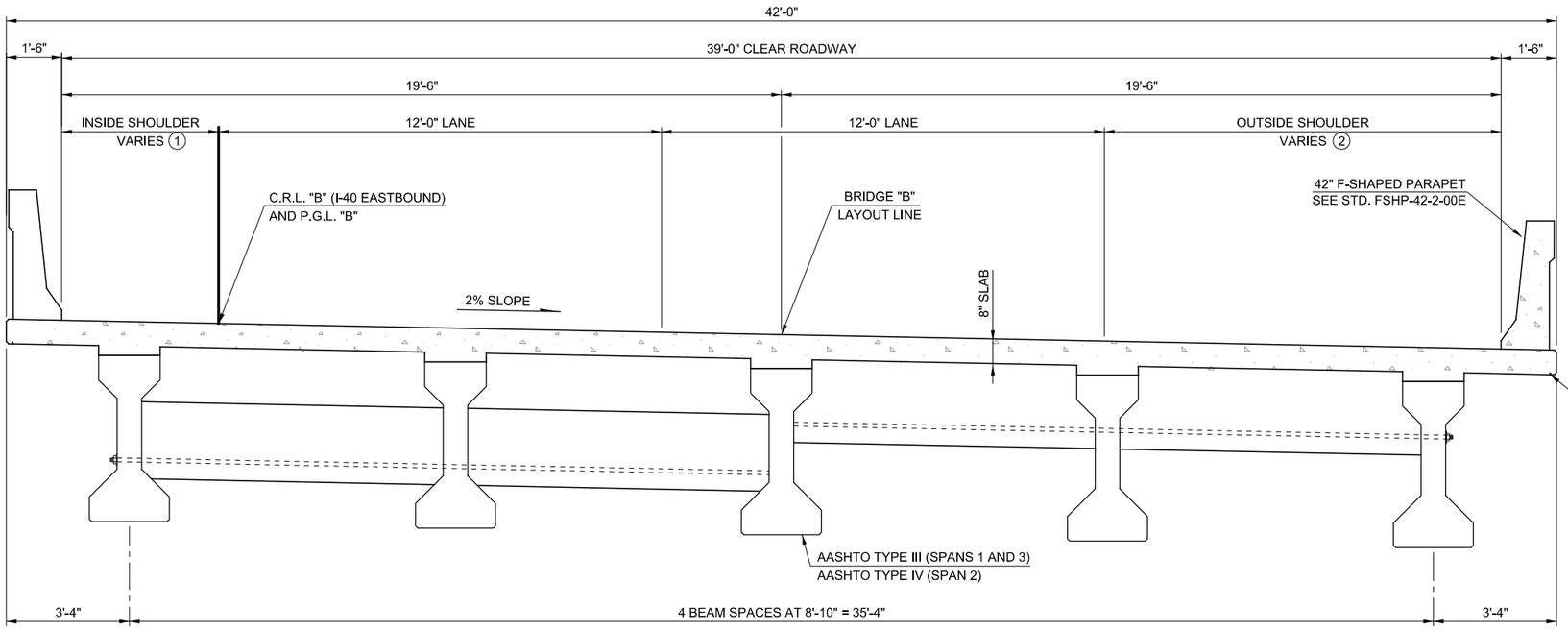
OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION - BRIDGE "B"

60' TYPE III - 95' TYPE IV - 60' TYPE III P.C. BEAM SPANS
39' CLEAR ROADWAY WITH 42" F-SHAPED CONCRETE PARAPETS
45° LF SKEW CENTERLINE BRIDGE STA. 857+24.00

STATE JOB NO. 31692(04) SHEET NO. B004

PRINT DATE: 3/31/2021 T:\19\19-19A\Drawings\Bridge\1919A-gpe02.dgn



HALF SECTION AT INTERMEDIATE DIAPHRAGM

HALF SECTION AT END DIAPHRAGM

(1) INSIDE SHOULDER

VARIES FROM 4'-11 5/16" AT STA. 855+52.33 (BEGIN APPROACH SLAB NO. 1) TO 4'-3" AT STA. 857+24.00 (CENTERLINE BRIDGE).

VARIES FROM 4'-3" AT STA. 857+24.00 (CENTERLINE BRIDGE) TO 4'-8 5/8" AT STA. 858+65.17 (END APPROACH SLAB NO. 2).

(2) OUTSIDE SHOULDER

VARIES FROM 10'-0 1/16" AT STA. 855+52.33 (BEGIN APPROACH SLAB NO. 1) TO 10'-9" AT STA. 857+24.00 (CENTERLINE BRIDGE).

VARIES FROM 10'-9" AT STA. 857+24.00 (CENTERLINE BRIDGE) TO 10'-3 3/8" AT STA. 858+65.17 (END APPROACH SLAB NO. 2).

TYPICAL CROSS SECTION - BRIDGE "B"

PROPOSED
R/W
03-31-2021

PRELIMINARY PLANS
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

DESIGN	GLF	
DRAWN	ZTF	
CHECKED	GLF	
APPROVED		
SQUAD	MacArthur	

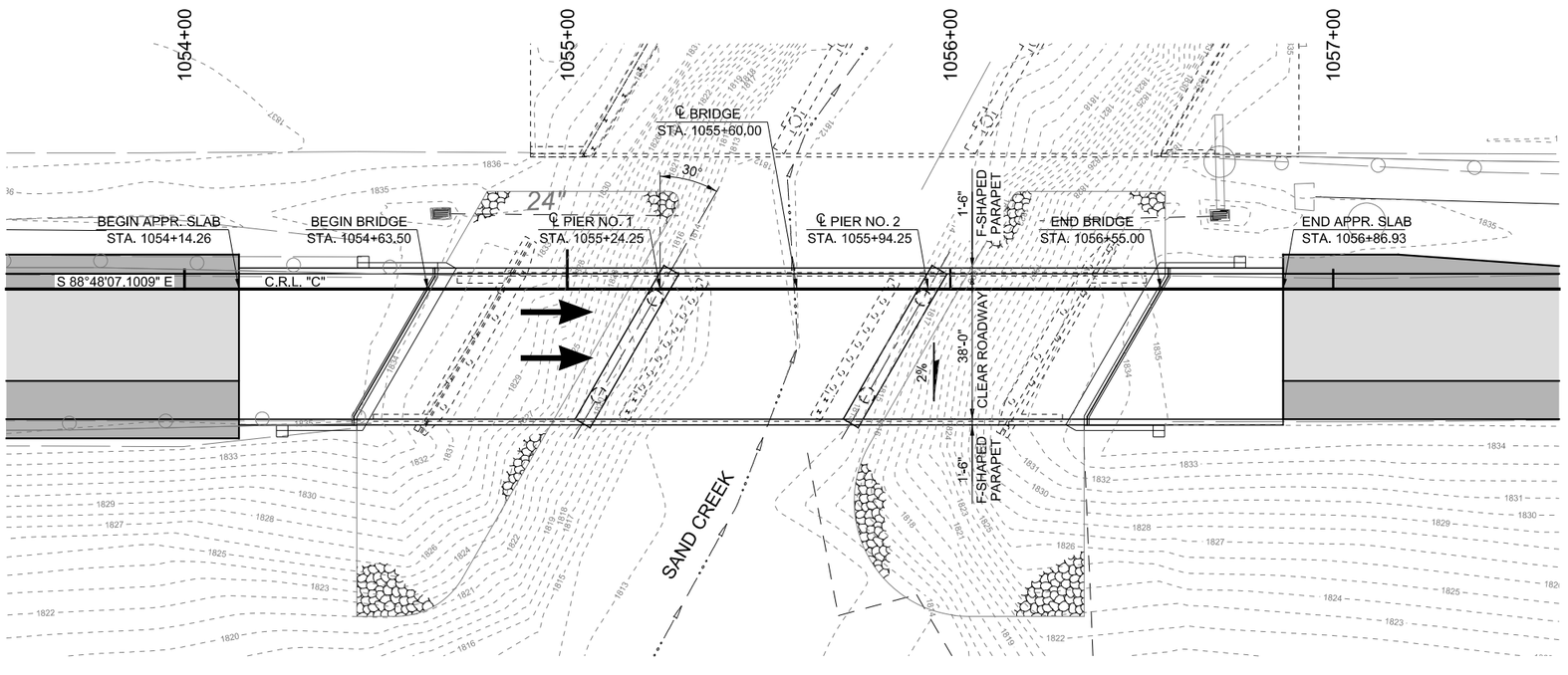
I-40 (EB) OVER TURKEY CREEK — BECKHAM CO.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION - BRIDGE "B"

STATE JOB NO. 31692(04) SHEET NO. B005

PRINT DATE: 3/31/2021 T:\1919\19-19ALD\rawings\Bridge\1919A-super02.dgn



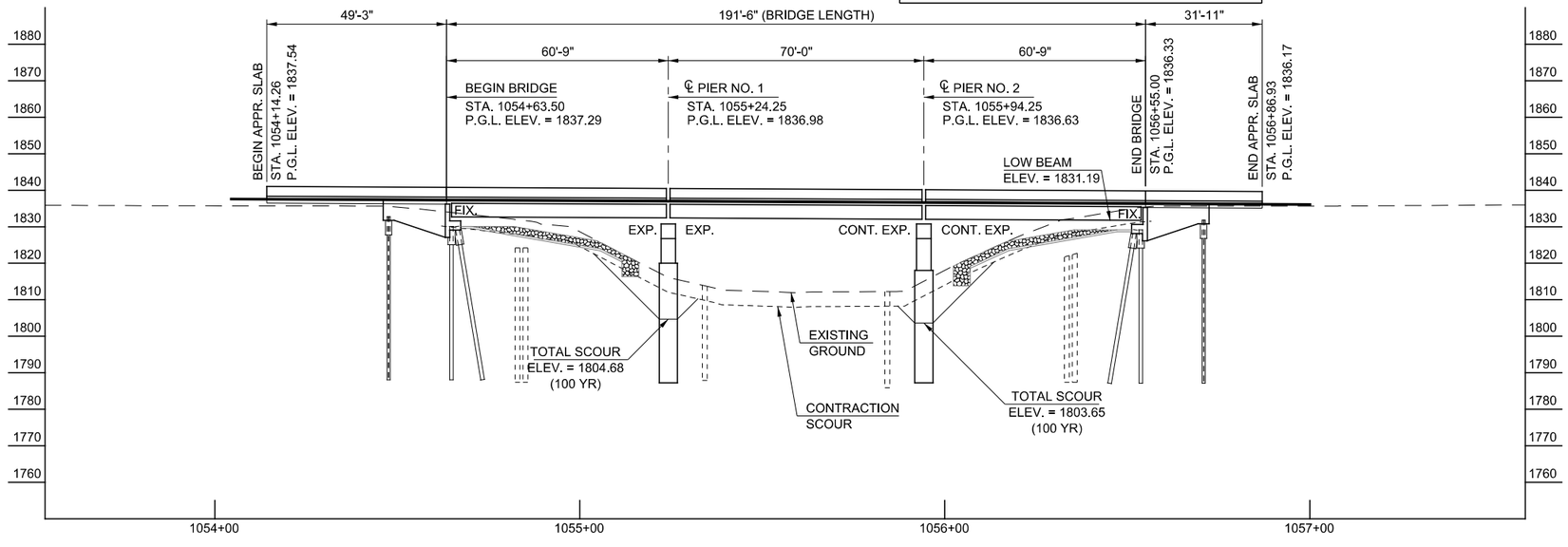
PLAN

BM-12
CUT "X" ON SW COR. OF DRAIN. BOX ℄ SURVEY STA. 1054+91.42, 182.88' RT. ELEV.= 1812.99

PROPOSED R/W

03-31-2021

BM-13
5/8" IRON BAR W/ ALUM. CAP ℄ SURVEY STA. 1061+97.99, 202.71' RT. ELEV.= 1820.33



ELEVATION

DESIGN DATA

SPECIFICATION

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION
ANSI/AASHTO/AWS: D1.5 BRIDGE WELDING CODE
ANSI/AASHTO/AWS: D1.6 STRUCTURAL WELDING CODE-STAINLESS STEEL

LOADING

HL-93 OR OKLAHOMA OVERLOAD TRUCK

DESIGN DEAD LOAD INCLUDES:

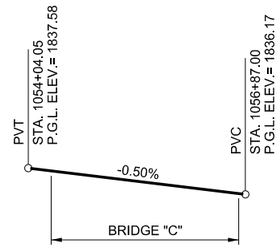
20 PSF FUTURE WEARING SURFACE
5 PSF STEEL DECK FORM ALLOWANCE

UNIT STRESSES

CLASS A CONCRETE	F'C = 3,000 PSI
CLASS AA CONCRETE	F'C = 4,000 PSI
REINFORCING STEEL (GR. 60)	FY = 60,000 PSI
STRUCTURAL STEEL (GR. 50W)	FY = 50,000 PSI
STRUCTURAL STEEL (GR. 50) (PILING)	FY = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	FY = 30,000 PSI

OPERATING RATING

LRFR INVENTORY RATING FACTOR	X.XX
LRFR OPERATING RATING FACTOR	X.XX



PROFILE GRADE LINE (P.G.L.)
(ALONG C.R.L. "C")

HYDRAULIC DATA - BRIDGE "C"			
TOTAL DA = 24.31 SQ. MI. CONTROLLED DA = 00.00 SQ. MI. EFFECTIVE DA = 24.31 SQ. MI.			
FREQ.	Q (cfs)	CWH (ft)	V (ft/s)
2	678	1815.63	3.40
5	1,590	1817.67	4.64
10	2,530	1819.22	5.50
25	4,130	1821.28	6.66
50	5,670	1822.90	7.53
100	7,300	1824.38	8.31
500	12,600	1828.14	10.33
		100 YR.	500 YR
CONTRACTION SCOUR (ft)		4.02	8.26
PIER SCOUR (ft)		7.39	8.20
TOTAL SCOUR (ft)		11.41	16.46

PRELIMINARY PLANS
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

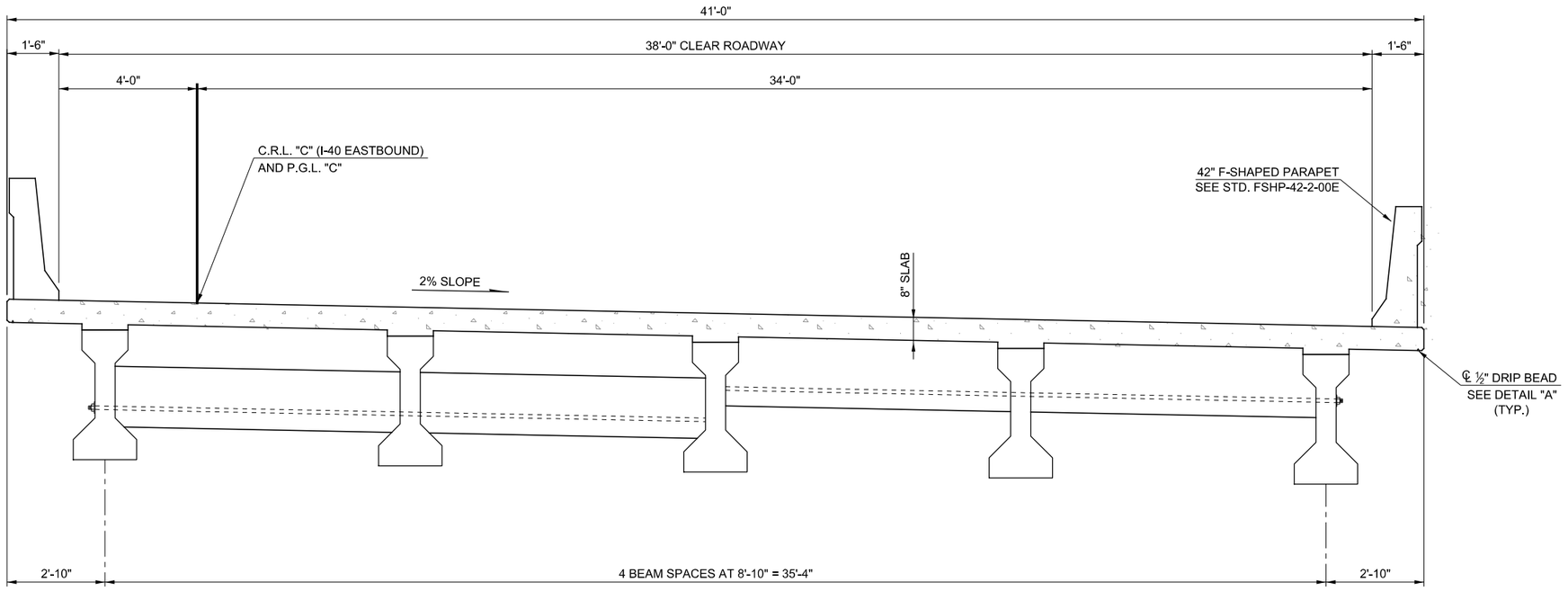
DESIGN	GLF	
DRAWN	ZTF	
CHECKED	GLF	
APPROVED		
SQUAD	MacArthur	

I-40 (EB) OVER SAND CREEK — BECKHAM CO.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION - BRIDGE "C"
60'-70'-60' P.C. BEAM SPANS
38' CLEAR ROADWAY WITH 42" F-SHAPED CONCRETE PARAPETS
30° LF SKEW CENTERLINE BRIDGE STA. 1055+59.25
STATE JOB NO. 31692(04) SHEET NO. B006

PRINT DATE: 3/31/2021 T:\1919\19-19BID\drawings\Bridge\1919B-gne01.dgn



HALF SECTION AT INTERMEDIATE DIAPHRAGM

HALF SECTION AT END DIAPHRAGM

TYPICAL CROSS SECTION - BRIDGE "C"

PROPOSED
R/W
03-31-2021

I-40 (EB) OVER SAND CREEK BECKHAM CO.

PRELIMINARY PLANS
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

DESIGN	GLF	
DRAWN	ZTF	
CHECKED	GLF	
APPROVED		
SQUAD	MacArthur	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION - BRIDGE "C"

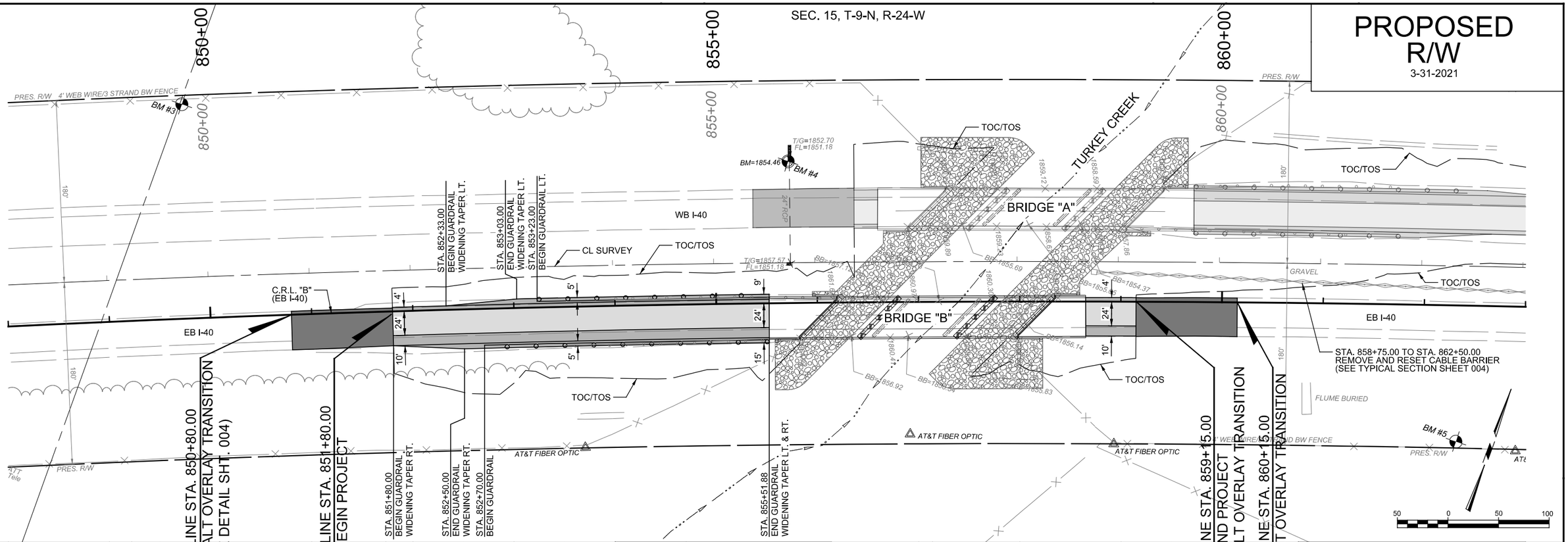
STATE JOB NO. 31692(04) SHEET NO. B007

PRINT DATE: 3/31/2021 T:\1919\19-19BI\Drawings\Bridge\1919B-super01.dgn

SEC. 15, T-9-N, R-24-W

PROPOSED R/W

3-31-2021



BENCHMARK "4"
STA. 855+74.70 , 100.21' LT.
SET CUT "X" ON THE CENTER OF HEADWALL.
25.0'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40.
ELEV.=1854.01
N=705111.70
E=1453657.00

BENCHMARK "5"
STA. 862+37.31 , 173.66' RT.
SET 5/8" IB W/ ALUM. CAP MAC CA699.
95.0'+/- S. OF THE S. EDGE OF PVMT. FOR THE E. BND. I-40 AND 5.0'+/- NORTH OF BARB WIRE FENCE.
ELEV.=1862.53
N=705059.70
E=1454371.00

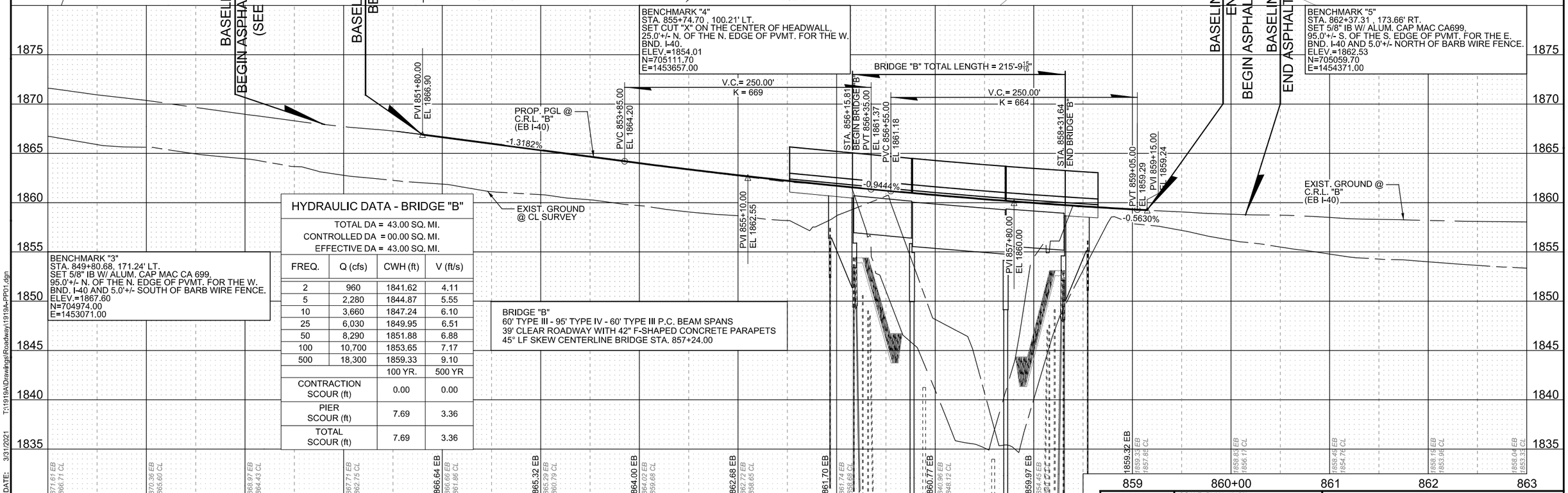
BENCHMARK "3"
STA. 849+80.68, 171.24' LT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699,
95.0'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40 AND 5.0'+/- SOUTH OF BARB WIRE FENCE.
ELEV.=1867.60
N=704974.00
E=1453071.00

HYDRAULIC DATA - BRIDGE "B"

TOTAL DA = 43.00 SQ. MI.
CONTROLLED DA = 00.00 SQ. MI.
EFFECTIVE DA = 43.00 SQ. MI.

FREQ.	Q (cfs)	CWH (ft)	V (ft/s)
2	960	1841.62	4.11
5	2,280	1844.87	5.55
10	3,660	1847.24	6.10
25	6,030	1849.95	6.51
50	8,290	1851.88	6.88
100	10,700	1853.65	7.17
500	18,300	1859.33	9.10
		100 YR.	500 YR
CONTRACTION SCOUR (ft)		0.00	0.00
PIER SCOUR (ft)		7.69	3.36
TOTAL SCOUR (ft)		7.69	3.36

BRIDGE "B"
60' TYPE III - 95' TYPE IV - 60' TYPE III P.C. BEAM SPANS
39' CLEAR ROADWAY WITH 42" F-SHAPED CONCRETE PARAPETS
45° LF SKEW CENTERLINE BRIDGE STA. 857+24.00

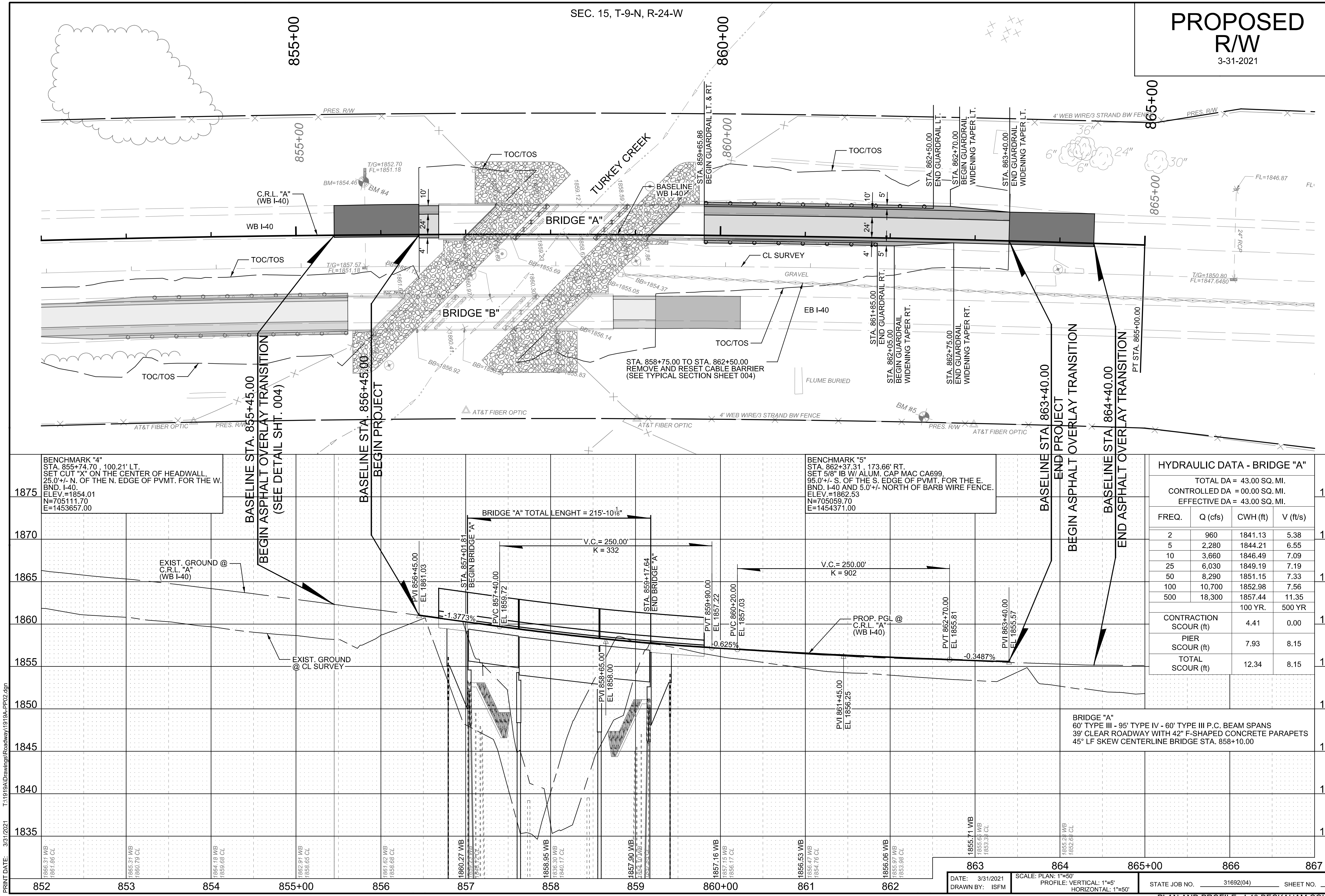


PRINT DATE: 3/3/2021 T:\1919AlDrawings\Roadway\1919A-PP01.dgn

DATE: 3/31/2021	SCALE: PLAN: 1"=50'	STATE JOB NO. 31692(04)	SHEET NO. R005
DRAWN BY: ISFM	PROFILE: VERTICAL: 1"=5' HORIZONTAL: 1"=50'		

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PROPOSED R/W
3-31-2021



SEC. 15, T-9-N, R-24-W
855+00
860+00
865+00
PRES. R/W
4' WEB WIRE/3 STRAND BW FENCE
TOC/TOS
TURKEY CREEK
BASELINE WB I-40
C.R.L. "A" (WB I-40)
WB I-40
BM=1854.46
BM #4
T/G=1852.70
FL=1851.18
T/G=1857.57
FL=1851.18
BRIDGE "A"
BRIDGE "B"
CL SURVEY
GRAVEL
EB I-40
STA. 859+65.86 BEGIN GUARDRAIL LT. & RT.
STA. 862+50.00 END GUARDRAIL LT.
STA. 862+70.00 BEGIN GUARDRAIL WIDENING TAPER LT.
STA. 863+40.00 END GUARDRAIL WIDENING TAPER LT.
STA. 861+85.00 END GUARDRAIL RT.
STA. 862+05.00 BEGIN GUARDRAIL WIDENING TAPER RT.
STA. 862+75.00 END GUARDRAIL WIDENING TAPER RT.
PT STA. 865+00.00
FL=1846.87
24" RCP
T/G=1850.80
FL=1847.6480
STA. 858+75.00 TO STA. 862+50.00
REMOVE AND RESET CABLE BARRIER
(SEE TYPICAL SECTION SHEET 004)
FLUME BURIED
AT&T FIBER OPTIC
BM #5
BASELINE STA. 855+45.00
BEGIN ASPHALT OVERLAY TRANSITION
(SEE DETAIL SHT. 004)
BASELINE STA. 856+45.00
BEGIN PROJECT
BASELINE STA. 863+40.00
END PROJECT
BEGIN ASPHALT OVERLAY TRANSITION
BASELINE STA. 864+40.00
END ASPHALT OVERLAY TRANSITION
BENCHMARK "4"
STA. 855+74.70 , 100.21' LT.
SET CUT "X" ON THE CENTER OF HEADWALL,
25.0'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40.
ELEV.=1854.01
N=705111.70
E=1453657.00
BENCHMARK "5"
STA. 862+37.31 , 173.66' RT.
SET 5/8" IB W/ ALUM. CAP MAC CA699,
95.0'+/- S. OF THE S. EDGE OF PVMT. FOR THE E. BND. I-40 AND 5.0'+/- NORTH OF BARB WIRE FENCE.
ELEV.=1862.53
N=705059.70
E=1454371.00
BRIDGE "A" TOTAL LENGHT = 215'-10 1/16"
V.C.= 250.00'
K = 332
V.C.= 250.00'
K = 902
EXIST. GROUND @ C.R.L. "A" (WB I-40)
EXIST. GROUND @ CL SURVEY
PROP. PGL @ C.R.L. "A" (WB I-40)
PVI 856+45.00 EL 1861.03
STA. 857+01.81 BEGIN BRIDGE "A"
PVC 857+40.00 EL 1859.72
STA. 859+17.64 END BRIDGE "A"
PVT 859+90.00 EL 1857.22
PVC 860+20.00 EL 1857.03
PVI 858+65.00 EL 1858.00
PVI 861+45.00 EL 1856.25
PVT 862+70.00 EL 1855.81
PVI 863+40.00 EL 1855.57
-1.3773%
-0.625%
-0.3487%
BRIDGE "A"
60' TYPE III - 95' TYPE IV - 60' TYPE III P.C. BEAM SPANS
39' CLEAR ROADWAY WITH 42" F-SHAPED CONCRETE PARAPETS
45° LF SKEW CENTERLINE BRIDGE STA. 858+10.00
1875
1870
1865
1860
1855
1850
1845
1840
1835
852
853
854
855+00
856
857
858
859
860+00
861
862
863
864
865+00
866
867

HYDRAULIC DATA - BRIDGE "A"

TOTAL DA = 43.00 SQ. MI.
CONTROLLED DA = 00.00 SQ. MI.
EFFECTIVE DA = 43.00 SQ. MI.

FREQ.	Q (cfs)	CWH (ft)	V (ft/s)
2	960	1841.13	5.38
5	2,280	1844.21	6.55
10	3,660	1846.49	7.09
25	6,030	1849.19	7.19
50	8,290	1851.15	7.33
100	10,700	1852.98	7.56
500	18,300	1857.44	11.35
		100 YR.	500 YR.
CONTRACTION SCOUR (ft)		4.41	0.00
PIER SCOUR (ft)		7.93	8.15
TOTAL SCOUR (ft)		12.34	8.15

DATE: 3/31/2021
DRAWN BY: ISFM
SCALE: PLAN: 1"=50'
PROFILE: VERTICAL: 1"=5'
HORIZONTAL: 1"=50'
STATE JOB NO. 31692(04)
SHEET NO. R006

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PRINT DATE: 3/31/2021 T:\1919A\Drawings\Roadway\1919A-PP02.dgn

SEC. 15, T-9-N, R-24-W

PROPOSED R/W

3-31-2021

840+00

845+00

BM #1

BM #2

BM #3

PRES. R/W

4' WEB WIRE/3 STRAND BW FENCE

Tele AT&T FIBER

CL SURVEY
CURVE DATA - C1
P.I. Sta.869+88.65
X=1454571.52
Y=706347.15
Delta=34°20'05.46"
D=0°16'00.00"
T=6637.62
L=12875.57
R=21485.92
E=1001.92

CRL EB Detour 1 - CURVE No. 2
PI STA.= 845+30.55
N= 704695.59
E= 1452687.11
Δ= 9°55'11.00"
D= 2°29'12.46"
T= 199.95'
L= 398.90'
R= 2304.00'
E= 8.66'
V= 65 MPH

PC STA. 837+62.00

PT STA. 840+61.91

PI STA. 845+30.55

Sign-MILE 16

WB I-40

CL SURVEY

EB DETOUR 1 CURVE No. 1

EB DETOUR 1 CURVE No. 2

268.69'
N58°25'36"E

CURVE No. C1

CRL EB DETOUR 1

EB I-40

PC STA. 843+30.60

PT STA. 847+29.50

Sign-BRIDGE ICES BEFORE ROAD

CRL EB Detour 1 - CURVE No. 1
PI STA.= 839+12.17
N= 704371.59
E= 1452159.90
Δ= 7°32'11.62"
D= 2°30'46.65"
T= 150.17'
L= 299.91'
R= 2280.01'
E= 4.94'
V= 65 MPH

PI STA. 839+12.17

AT&T Tele

50 0 50 100

BENCHMARK "1"
STA. 836+27.65, 190.80' LT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699,
95.0'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40 AND 5.0'+/- S. OF BARB WIRE FENCE.
ELEV.=1894.73
N=704467.90
E=1451804.00

BENCHMARK "2"
STA. 842+97.50, 247.20' LT.
SET RR SPIKE IN S. SIDE OF FENCE CORNER POST,
160'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40.
ELEV.=1895.59
N=704789.50
E=1452402.00

BENCHMARK "3"
STA. 849+80.68, 171.24' LT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699,
95.0'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40 AND 5.0'+/- SOUTH OF BARB WIRE FENCE.
ELEV.=1867.60
N=704974.00
E=1453071.00

PVI 837+62.00
EL 1884.95

PROFILE GRADE @ CRL EB DETOUR 1

CRL EB DETOUR 1
STA. 842+15.89=
STA. 842+16.67
CRL WB DETOUR 2

-1.24%

STR. 1
INSTALL 400 LF 24" CGMP
FL (IN) = 1876.35'
FL (OUT) = 1871.27'

EXIST. GROUND @ CRL EB DETOUR 1

PVI 847+29.50
EL 1872.94

	836	837	838	839	840+00	841	842	843	844	845+00	846	847	848
EXIST. GROUND	1886.96	1885.74	1884.48	1883.23	1881.99	1880.75	1879.51	1878.27	1877.03	1875.79	1874.55	1873.31	
PROFILE GRADE	1884.48	1884.48	1883.23	1882.97	1880.34	1876.79	1874.37	1874.38	1875.18	1875.37	1874.39	1873.28	1871.38

DATE: 3/31/2021
DRAWN BY: ISFM

SCALE: PLAN: 1"=50'
PROFILE: VERTICAL: 1"=5'
HORIZONTAL: 1"=50'

STATE JOB NO. 31692(04) SHEET NO. R007

PRINT DATE: 3/31/2021 T:\1919A\Drawings\Roadway\1919A-EB DETOUR PP01.dgn

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PROPOSED R/W

3-31-2021

SEC. 15, T-9-N, R-24-W

SEC. 14, T-9-N, R-24-W

CRL EB Detour 2 - CURVE No. 1
PI STA.= 872+17.43
N= 705542.83
E= 1455247.93
Δ= 9°26'57.90"
D= 2°29'59.33"
T= 189.43'
L= 378.01'
R= 2292.00'
E= 7.81'
V= 65 MPH

CL SURVEY
CURVE DATA - C1
P.I. Sta.869+88.65
X=1454571.52
Y=706347.15
Delta=34°20'05.46"
D=0°16'00.00"
T=6637.62
L=12875.57
R=21485.92
E=1001.92

CRL EB Detour 2 - CURVE No. 2
PI STA.= 877+92.14
N= 705601.82
E= 1455820.47
Δ= 7°02'57.95"
D= 2°29'59.34"
T= 141.18'
L= 282.00'
R= 2292.00'
E= 4.34'
V= 65 MPH

STA. 869+50.00 TO STA. 880+00.00
REMOVE AND RESET CABLE BARRIER
(SEE TYPICAL SECTION SHEET 004)

BENCHMARK "6"
STA. 867+84.43, 87.73' RT.
SET CUT "X" ON THE N.W. CORNER OF CONCRETE PAD, 12.0'+/- S. OF THE S. EDGE OF PVMT. FOR E. BND. I-40 AND 40.0' W. OF W. EDGE OF BRIDGE (BK17) OVER I-40 E. BND.
ELEV.=1856.76
N=705302.20
E=1454866.00

BENCHMARK "7"
STA. 872+97.31 , 175.78' RT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699, 100.0'+/- S. OF THE S. EDGE OF PVMT. FOR THE E. BND. I-40 AND 5.0'+/- N. OF BARB WIRE FENCE.
ELEV.=1866.70
N=705347.90
E=1455382.00

BENCHMARK "8"
STA. 878+84.59 , 177.67' RT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699, 175.0'+/- S. OF THE S. EDGE OF PVMT. FOR THE E. BND. I-40 AND 5.0'+/- N. OF BARB WIRE FENCE.
ELEV.=1862.22
N=705485.30
E=1455948.00

STR. 2
INSTALL SMD TYPE 2A
W/ 555 LF 30" CGMP
FL (IN) = 1856.47'
FL (OUT) = 1854.10'

PVI 870+28.00 EL 1856.57
PVC 872+00.00 EL 1857.25
PVT 874+00.00 EL 1858.93
PVI 873+00.00 EL 1857.65
PVC 875+50.00 EL 1860.84
PVI 877+00.00 EL 1862.75
PVT 878+50.00 EL 1863.52
PVI 879+32.96 EL 1863.94
V.C.= 200.00' K = 228
V.C.= 300.00' K = 393
0.40%
1.27%
0.51%
CRL EB DETOUR 2 STA. 874+90.59= STA. 874+89.75 CRL WB DETOUR 1
PROFILE GRADE @ CRL EB DETOUR 2
EXIST. GROUND @ CRL EB DETOUR 2

1855.45 1856.29 1856.86 1856.88 1857.25 1857.19 1857.87 1857.38 1858.93 1856.51 1860.20 1855.13 1861.44 1857.59 1862.46 1861.17 1863.23 1862.98 1863.77 1863.73 1863.73

869 870+00 871 872 873 874 875+00 876 877 878 879 880+00

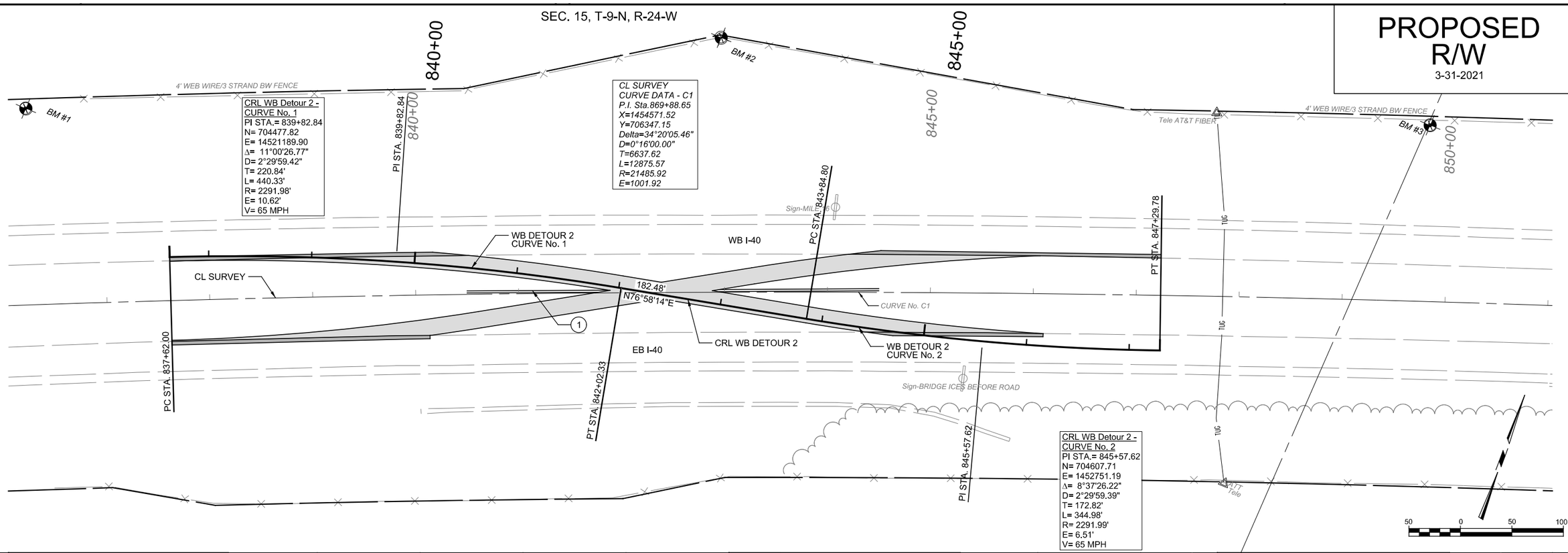
PRINT DATE: 3/31/2021 T:\1919A\Drawings\Roadway\1919A-EB DETOUR PP02.dgn

DATE: 3/31/2021
DRAWN BY: ISFM
SCALE: PLAN: 1"=50'
PROFILE: VERTICAL: 1"=5'
HORIZONTAL: 1"=50'
STATE JOB NO. 31692(04)
SHEET NO. R008

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

SEC. 15, T-9-N, R-24-W

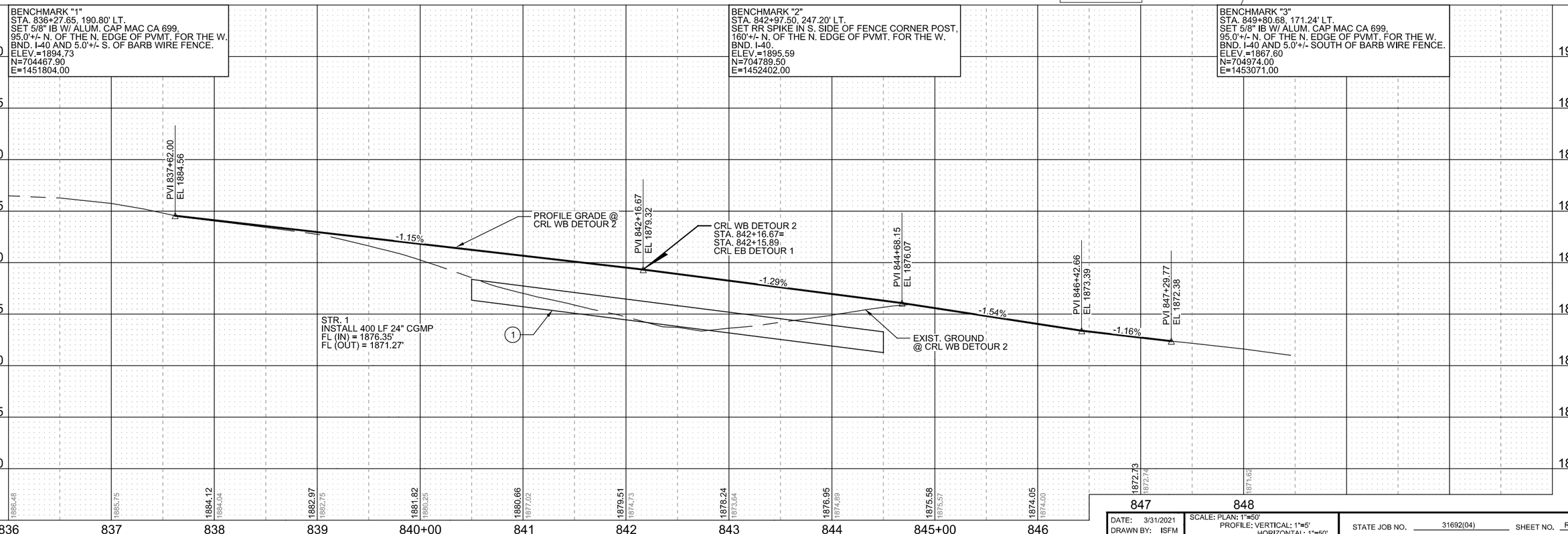
PROPOSED R/W
3-31-2021



BENCHMARK "1"
STA. 836+27.65, 190.80' LT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699,
95.0'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40 AND 5.0'+/- S. OF BARB WIRE FENCE.
ELEV.=1894.73
N=704467.90
E=1451804.00

BENCHMARK "2"
STA. 842+97.50, 247.20' LT.
SET RR SPIKE IN S. SIDE OF FENCE CORNER POST,
160'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40.
ELEV.=1895.59
N=704789.50
E=1452402.00

BENCHMARK "3"
STA. 849+80.68, 171.24' LT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699,
95.0'+/- N. OF THE N. EDGE OF PVMT. FOR THE W. BND. I-40 AND 5.0'+/- SOUTH OF BARB WIRE FENCE.
ELEV.=1867.60
N=704974.00
E=1453071.00



PRINT DATE: 3/31/2021 T:\1919A\Drawings\Roadway\1919A-WB DETOUR PP01.dgn

DATE: 3/31/2021	SCALE: PLAN: 1"=50'	STATE JOB NO. 31692(04)	SHEET NO. R009
DRAWN BY: ISFM	PROFILE: VERTICAL: 1"=5' HORIZONTAL: 1"=50'		

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PROPOSED R/W
3-31-2021

SEC. 15, T-9-N, R-24-W

SEC. 14, T-9-N, R-24-W

870+00 875+00 880+00

4' WEB WIRE/3 STRAND BW FENCE

CL SURVEY
CURVE DATA - C1
P.I. Sta.869+88.65
X=1454571.52
Y=706347.15
Delta=34°20'05.46"
D=0°16'00.00"
T=6637.62
L=12875.57
R=21485.92
E=1001.92

CRL WB Detour 1 - CURVE No. 2
PI STA.= 877+46.65
N= 705668.22
E= 1455758.26
Δ= 9°19'34.74"
D= 2°29'59.34"
T= 186.95'
L= 373.08'
R= 2292.00'
E= 7.61'
V= 65 MPH

PI STA. 877+46.65

WB DETOUR 1 CURVE No. 2

PC STA. 870+28.00

PT STA. 873+05.07

WB I-40

254.62'
N67°44'30"E

CURVE No. C1

CL SURVEY

WB DETOUR 1 CURVE No. 1

CRL WB DETOUR 1

EB I-40

PC STA. 875+59.69

PT STA. 879+32.77

STA. 869+50.00 TO STA. 880+00.00
REMOVE AND RESET CABLE BARRIER
(SEE TYPICAL SECTION SHEET 004)

PI STA. 871+66.70

CRL WB Detour 1 - CURVE No. 1
PI STA.= 871+66.70
N= 705448.42
E= 1455221.22
Δ= 6°55'34.69"
D= 2°29'59.35"
T= 138.70'
L= 277.07'
R= 2292.00'
E= 4.19'
V= 65 MPH

GAS
CANNOT LOCATE HEADWALL
0.18 36" RCP
BARREL BARRIER
1874.76 1874.73 BB=1869.92 1875.40 1875.36
BB=1871.38 BB=1871.47 1877.32 1877.59 BB=1873.15
1879.05 1879.02
1880.00 1880.11 BB=1875.38 BB=1875.33 BB=1875.95
1880.62 1880.73 BM #6 BB=1876.00
36" RCP FL=1853.77
T/G=1856.57 SILTED INLET
1880.93 1880.86
AT&T FIBER OPTIC
STRAND BW FENCE
BM #7
BM #8

50 0 50 100

BENCHMARK "6"
STA. 867+84.43, 87.73' RT.
SET CUT "X" ON THE N.W. CORNER OF CONCRETE PAD, 12.0'+/- S. OF THE S. EDGE OF PVMT. FOR E. BND. I-40 AND 40.0' W. OF W. EDGE OF BRIDGE (BK17) OVER I-40 E. BND.
ELEV.=1856.76
N=705302.20
E=1454866.00

BENCHMARK "7"
STA. 872+97.31 175.78' RT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699, 100.0'+/- S. OF THE S. EDGE OF PVMT. FOR THE E. BND. I-40 AND 5.0'+/- N. OF BARB WIRE FENCE.
ELEV.=1866.70
N=705347.90
E=1455382.00

BENCHMARK "8"
STA. 879+84.59 177.67' RT.
SET 5/8" IB W/ ALUM. CAP MAC CA 699, 175.0'+/- S. OF THE S. EDGE OF PVMT. FOR THE E. BND. I-40 AND 5.0'+/- N. OF BARB WIRE FENCE.
ELEV.=1862.22
N=705485.30
E=1455948.00

1875 1870 1865 1860 1855 1850 1845 1840 1835

PVI 870+28.00 EL 1859.66
PVI 873+00.00 EL 1861.00
PVC 875+50.00 EL 1859.75
PVT 878+50.00 EL 1859.71
PVI 879+32.77 EL 1860.11
V.C.= 300.00'
K = 308

CRL WB DETOUR 1
STA. 874+89.75=
STA. 874+90.59
CRL EB DETOUR 2

PROFILE GRADE @ CRL WB DETOUR 1

0.49% -0.50% 0.47%

EXIST. GROUND @ CRL WB DETOUR 1

PVC 871+00.00 EL 1860.02
PVT 875+00.00 EL 1860.00
PVI 877+00.00 EL 1859.00
V.C.= 400.00'
K = 403

STR. 2
INSTALL SMD TYPE 2A
W/ 555 LF 30" CGMP
FL (IN) = 1856.47'
FL (OUT) = 1854.10'

1858.73 1859.39 1860.02 1859.96 1860.38 1859.80 1860.50 1859.68 1860.38 1859.24 1860.00 1855.15 1859.54 1857.80 1859.37 1858.96 1859.52 1859.43 1859.95 1859.94 1860.43

869 870+00 871 872 873 874 875+00 876 877 878 879 880+00

PRINT DATE: 3/31/2021 T:\1919A\Drawings\Roadway\1919A-WB DETOUR PP02.dgn

DATE: 3/31/2021
DRAWN BY: ISFM
SCALE: PLAN: 1"=50'
PROFILE: VERTICAL: 1"=5'
HORIZONTAL: 1"=50'
STATE JOB NO. 31692(04)
SHEET NO. R010

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PROPOSED R/W

3-31-2021

SEC. 8, T-9-N, R-23-W

1045+00

1050+00

PRES. R/W

4' HOG PANEL

LIVEST

CONC R/W MKR

Sign-CABLE

SW BELL

4' 4 STRAND BW FENCE

SIGN-45 MPH

SEC. LINE

2640.58'

S89°42'2.68"E

30"

269'

215'

210'

POB STA. 1041+00.00

STA. 1051+60.00
BEGIN GUARDRAIL
WIDENING TAPER LT.

STA. 1052+25.00
END GUARDRAIL
WIDENING TAPER LT.
BEGIN GUARDRAIL LT.

MATCH LINE STA. 1053+00.00

I-40 WB

STA. 1044+00.00 TO STA. 1053+79.64
REMOVE AND RESET CABLE BARRIER
(SEE TYPICAL SECTION SHEET 004)

CL SURVEY

TOC/TOS

C.R.L. "C"
(EB I-40)

14175.42'

S88°48'7.19"E

2500'

S88°48'7.18"E

24'

9'

I-40 EB

SIGN-TRAFFIC

10'

15'

STA. 1045+00.00

TOC/TOS

STA. 1050+56.00
BEGIN GUARDRAIL
WIDENING TAPER RT.

STA. 1051+26.00
END GUARDRAIL
WIDENING TAPER RT.
BEGIN GUARDRAIL RT.

STA. 1043+00.00
OVERLAY TRANSITION
(SEE DETAIL SHT. 004)

STA. 1044+00.00
PROJECT

Sign-RC

TO FLO

5/8 IB ALUM MAC CAP

BM #10

Tele AT&T F

Tele AT&T FIBER

PRES. R/W

BM #11

5/8 IB ALUM MAC CAP

4.5' 5 BW FENCE

Tele AT&T FIBER

PRES. R/W

SEC. 17, T-9-N, R-23-W

BENCHMARK "10"
STA. 1041+09.65, 208.48' RT.
SET 5/8" IB W/ ALUM. CAP STAMPED MAC CA 699,
560.0'+/- E. OF THE INTERSECTION OF BK 20 AND
THE S. SIDE HWY. 66 AND 5.0' N. OF BARB WIRE FENCE.
ELEV.=1847.97
N=705772.43
E=1472084.20

BENCHMARK "11"
STA. 1047+84.80, 208.46' RT.
SET 5/8" IB W/ ALUM. CAP STAMPED MAC CA 699,
700.0' +/- W. OF CP 7402 AND 5.0' N. OF BARB WIRE FENCE.
ELEV.=1834.75
N=705758.26
E=1472759.02

PVI 1044+00.00
EL 1845.50

EXIST. GROUND @
C.R.L. "C"
(EB I-40)

PROP. PGL @
C.R.L. "C"
(EB I-40)

-0.8240%

EXIST. GROUND
@ CL SURVEY

V.C.= 225.00'
K = 699

PVC 1051+79.50
EL 1839.08

PVI 1052+92.00
EL 1838.15

1860
1855
1850
1845
1840
1835
1830
1825
1820

1847.00 EB
1844.98 CL

1846.74 EB
1844.28 CL

1846.38 EB
1844.23 CL

1845.50 EB
1845.62 EB
1843.26 CL

1844.68 EB
1844.81 EB
1842.37 CL

1843.85 EB
1843.79 EB
1841.76 CL

1843.03 EB
1842.62 EB
1840.37 CL

1842.20 EB
1841.34 EB
1839.26 CL

1841.38 EB
1840.07 EB
1838.48 CL

1840.56 EB
1838.84 EB
1837.77 CL

1839.73 EB
1837.89 EB
1836.77 CL

1838.91 EB
1838.67 EB
1836.87 CL

1838.19 EB
1838.06 EB
1836.84 CL

1041 1042 1043 1044 1045+00 1046 1047 1048 1049 1050+00 1051 1052 1053

PRINT DATE: 3/31/2021 T:\1919B\Drawings\Roadway\1919B-PP01.dgn

DATE: 3/31/2021	SCALE: PLAN: 1"=50'	STATE JOB NO. 31692(04)	SHEET NO. R011
DRAWN BY: XXX	PROFILE: VERTICAL: 1"=5' HORIZONTAL: 1"=50'		

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PROPOSED R/W
3-31-2021

SEC. 8, T-9-N, R-23-W

SEC. 17, T-9-N, R-23-W

MATCH LINE STA. 1053+00.00

STA. 1054+14.26 END GUARDRAIL LT. & RT.

C.R.L. "C" (EB I-40)

BRIDGE "C"

TOC/TOS

CL SURVEY

I-40 WB

I-40 EB

SAND CREEK

STA. 1056+86.93 BEGIN GUARDRAIL WIDENING LT. I-40 WB

STA. 1056+98.80 END GUARDRAIL WIDENING TAPER LT.

STA. 1057+17.00 BEGIN GUARDRAIL WIDENING TAPER LT.

STA. 1057+87.00 END GUARDRAIL WIDENING TAPER LT.

STA. 1061+00.00

BASELINE STA. 1061+00.00 BEGIN PROJECT BEGIN ASPHALT OVERLAY TRANSITION

BASELINE STA. 1062+00.00 END PROJECT END ASPHALT OVERLAY TRANSITION

POE STA. 1066+00.00

2500' S88°48'7.18"E

14175.42' S88°48'7.19"E

2640.58' S89°4'2.68"E

2640.53' S89°19'15.8"E

BENCHMARK "12"
STA. 1047+84.80, 208.46' RT.
SET 5/8" IB W/ ALUM. CAP STAMPED MAC CA 699.
700.0' +/- W. OF CP 7402 AND 5.0' N. OF BARB WIRE FENCE.
ELEV.=1812.99
N=705769.09
E=1473466.23

BENCHMARK "13"
STA. 1047+84.80, 208.46' RT.
SET 5/8" IB W/ ALUM. CAP STAMPED MAC CA 699.
700.0' +/- W. OF CP 7402 AND 5.0' N. OF BARB WIRE FENCE.
ELEV.=1820.33
N=705734.45
E=1474171.70

V.C.= 225.00'
K = 699

BRIDGE "C" TOTAL LENGHT = 191'-6"

PVT 1054+04.50
EL 1837.58

STA. 1054+63.50 BEGIN BRIDGE "C"

STA. 1056.55.00 END BRIDGE "C"

PROP. PGL @ C.R.L. "C" (EB I-40)

-0.5025%

V.C.= 225.00'
K = 220

PVC 1056+87.00
EL 1836.17

PVT 1059+12.00
EL 1836.18

PVI 1061+00.00
EL 1837.16

0.5191%

EXIST. GROUND @ C.R.L. "C" (EB I-40)

EXIST. GROUND @ CL SURVEY

PVI 1057+99.50
EL 1835.60

EXIST. WATERLINE CROSSING EXACT DEPTH AND SIZE UNKNOW

EXIST. GAS LINE CROSSING EXACT DEPTH AND SIZE UNKNOW

BRIDGE "C"
60'-70'-60' P.C. BEAM SPANS
38' CLEAR ROADWAY WITH 42" F-SHAPED CONCRETE PARAPETS
30° LF SKEW CENTERLINE BRIDGE STA. 1055+59.25

HYDRAULIC DATA - BRIDGE "C"

TOTAL DA = 24.31SQ. MI.
CONTROLLED DA = 00.00 SQ. MI.
EFFECTIVE DA = 24.31SQ. MI.

FREQ.	Q (cfs)	CWH (ft)	V (ft/s)
2	678	1815.63	3.40
5	1,590	1817.67	4.64
10	2,530	1819.22	5.50
25	4,130	1821.28	6.66
50	5,670	1822.90	7.53
100	7,300	1824.38	8.31
500	12,600	1828.14	10.33
		100 YR.	500 YR
CONTRACTION SCOUR (ft)		4.02	8.26
PIER SCOUR (ft)		7.39	8.20
TOTAL SCOUR (ft)		11.41	16.46

1836.08 EB / 1834.99 CL
1837.61 EB / 1835.73 EB / 1835.7 CL
1837.10 EB / 1828.72 EB / 1832.30 CL
1836.80 EB / 1817.91 EB / 1812.64 CL
1836.10 EB / 1835.66 EB / 1834.50 CL
1835.89 EB / 1836.17 EB / 1835.46 CL
1836.12 EB / 1836.52 EB / 1835.47 CL
1836.64 EB / 1836.80 EB / 1835.2 CL
1837.16 EB / 1837.16 EB / 1835.57 CL
1837.75 EB / 1837.75 EB / 1835.54 CL
1838.36 EB / 1838.02 CL
1839.04 EB / 1838.34 CL
1839.71 EB / 1837.14 CL

DATE: 3/31/2021
DRAWN BY: XXX
SCALE: PLAN: 1"=50'
PROFILE: VERTICAL: 1"=5'
HORIZONTAL: 1"=50'
STATE JOB NO. 31692(04)
SHEET NO. R012

PRINT DATE: 3/3/2021 T:\1919B\Drawings\Roadway\1919b-PP02.dgn

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PROPOSED R/W

3-31-2021

SEC. 8, T-9-N, R-23-W

SEC. 17, T-9-N, R-23-W

1035+00 | 1040+00 | 1045+00

PRES. R/W

5" COR POST
5 STRAND BW FENCE
SW BELL TELE
Sign-STOP
NAIL IN POST
Sign-BK 20 BK R
MAG NAIL
4' 4 STRAND BW FENCE
SIGN-45 MPH
OT BRASS CAP B-5-55
BM=1840.77
FL=1836.08
4FTX3FT
T/G=1840.63
24"
T/G=1840.62
T/G=1846.21
FL=1841.92E
24" RCP
T/G=1841.41
FL=1838.48
4FTX3FT
FL=1840.30
4'x3' RCB
FL=1841.00
SIGN-EXIT 20 S 4TH ST
SIGN-TRAFFIC
Sign-ROAD SUBJECT TO FLOODING
Sign-STOP
4.5' 5 BW FENCE
5/8 IB ALUM MAC CAP
Tele AT&T FIBER

PC STA. 1034+40.00
PT STA. 1037+26.67
PI STA. 1039+87.26
PC STA. 1038+43.74
PT STA. 1041+30.41
PI STA. 1035+83.52

GRADE FROM EXISTING MEDIAN TO PIPE, FL=1845.18'

I-40 WB
I-40 EB

CRL EB DETOUR
EB DETOUR 1 CURVE No. 2
EB DETOUR 1 CURVE No. 1
CL SURVEY

117.07'
N84°1'54.3"E

3

STA. 1033+50.00 TO STA. 1040+50.00
REMOVE AND RESET CABLE BARRIER
(SEE TYPICAL SECTION SHEET 004)

CRL EB Detour 1 - CURVE No. 2
PI STA= 1039+87.26
N= 70613.85
E= 1471963.76
Δ= 7°09'58.21"
D= 2°29'59.36"
T= 143.52'
L= 286.67'
R= 2291.99'
E= 4.49'
V= 65 MPH

CRL EB Detour 1 - CURVE No. 1
PI STA= 1035+83.52
N= 705971.84
E= 1471561.83
Δ= 7°09'58.23"
D= 2°29'59.34"
T= 143.52'
L= 286.67'
R= 2292.00'
E= 4.49'
V= 65 MPH

50 0 50 100

BENCHMARK "10"
STA. 1041+09.65, 208.48' RT.
SET 5/8" IB W/ ALUM. CAP STAMPED MAC CA 699,
560.0'+/- E. OF THE INTERSECTION OF BK 20 AND
THE S. SIDE HWY. 66 AND 5.0' N. OF BARB WIRE FENCE.
ELEV.=1847.97
N=705772.43
E=1472084.20

BENCHMARK "11"
STA. 1047+84.80, 208.46' RT.
SET 5/8" IB W/ ALUM. CAP STAMPED MAC CA 699,
700.0' +/- W. OF CP 7402 AND 5.0' N. OF BARB WIRE FENCE.
ELEV.=1834.75
N=705758.26
E=1472759.02

PVI 1035+90.00
EL 1848.30
PVC 1034+40.00
EL 1848.21
PVT 1037+40.00
EL 1848.00
PVI 1041+30.00
EL 1847.00
V.C.= 300.00'
K = 1131
-0.26%
PROFILE GRADE @ CRL EB DETOUR 1
EXIST. GROUND @ CRL EB DETOUR 1

STR. 3
INSTALL 595.62 LF 18" CGMP
FL (IN) = 1845.18'
FL (OUT) = 1844.32'

1865 1860 1855 1850 1845 1840 1835 1830 1825

1848.56 1848.39 1848.23 1848.30 1848.20 1847.57 1848.07 1845.70 1847.85 1846.42 1847.59 1847.94 1847.33 1847.53 1847.08 1847.14 1846.69 1846.00

1033 1034 1035+00 1036 1037 1038 1039 1040+00 1041 1042 1043

DATE: 3/31/2021	SCALE: PLAN: 1"=50'	STATE JOB NO. 31692(04)	SHEET NO. R013
DRAWN BY: XXX	PROFILE: VERTICAL: 1"=5' HORIZONTAL: 1"=50'		

PRINT DATE: 3/31/2021 T:\19198\Drawings\Roadway\19198-Crossover PP01.dgn

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

SEC. 8, T-9-N, R-23-W

PROPOSED R/W

3-31-2021

PRES. R/W

PRES. R/W

PRES. R/W

1065+00

1070+00

1075+00

NAIL IN POST

FND MAG

MAG 6202

SIGN-TRAFFIC

SIGN-TRAFFIC

SIGN-TRAFFIC

I-40 WB

I-40 EB

CL SURVEY

CRL EB Detour 2 - CURVE No. 1
PI STA= 1065+78.43
N= 705948.21
E= 1474556.91
Δ= 7°30'36.71"
D= 2°29'59.34"
T= 150.43'
L= 300.43'
R= 2292.00'
E= 4.93'
V= 65 MPH

PI STA. 1065+78.43

PC STA. 1068+18.06

PT STA. 1071+18.49

EB DETOUR 2 CURVE No. 1

CRL EB DETOUR 2

4

89.63'
S81°17'30.64"E

EB DETOUR 2 CURVE No. 2

T/G=1841.84
FL=1837.70
3FT BY 2.5FT

24"

T/G=1839.28
REST OF INLET BURIED

STA. 1063+50.00 TO STA. 1070+50.00
REMOVE AND RESET CABLE BARRIER
(SEE TYPICAL SECTION SHEET 004)

PC STA. 1064+28.00

PT STA. 1067+28.43

PI STA. 1069+68.49

BM #14

CRL EB Detour 2 - CURVE No. 2
PI STA= 1069+68.49
N= 705889.09
E= 1474942.89
Δ= 7°30'36.71"
D= 2°29'59.34"
T= 150.43'
L= 300.43'
R= 2292.00'
E= 4.93'
V= 65 MPH

MULTI 3' STUMPS

29"X18" ARCHED

50 0 50 100

SEC. 17, T-9-N, R-23-W

SIGN-SAYRE FIRST BAPTIST CHURCH

BENCHMARK "13"
STA. 1047+84.80, 208.46' RT.
SET 5/8" IB W/ ALUM. CAP STAMPED MAC CA 699,
700.0' +/- W. OF CP 7402 AND 5.0' N. OF BARB WIRE FENCE.
ELEV.=1820.33
N=705734.45
E=1474171.70

BENCHMARK "14"
STATION 1069+71.07, 150.54' RT.
STAINLESS STEEL ROD SET FLUSH WITH THE GROUND
LOCATED APPROX. 1000' W. OF EXIT 20,
ALONG THE S. R/W FENCE. MONUMENT WAS SET BY ODOT.
ELEV. =1849.47
N=705770.50
E=1474946.00

STR. 4
INSTALL SMD TYPE 2
W/ 650.34 LF 12" CGMP
FL (IN) = 1840.59'
FL (OUT) = 1838.27'

4

PVI 1064+28.00
EL 1838.36

PROFILE GRADE @ CRL EB DETOUR 2

PVI 1068+08.00
EL 1841.70

PVI 1071+18.49
EL 1843.22

0.88%

0.49%

EXIST. GROUND @ CRL EB DETOUR 2

1865 1860 1855 1850 1845 1840 1835 1830 1825

1637.57 1638.19 1838.99 1638.97 1839.87 1839.22 1840.75 1838.63 1841.63 1840.25 1842.15 1842.19 1842.64 1842.64 1843.13 1843.13 1843.13 1843.13

1063 1064 1065+00 1066 1067 1068 1069 1070+00 1071 1072 1073

PRINT DATE: 3/31/2021 T:\19198\Drawings\Roadway\19198-Crossover PP02.dgn

DATE: 3/31/2021	SCALE: PLAN: 1"=50'	STATE JOB NO. 31692(04)	SHEET NO. R014
DRAWN BY: XXX	PROFILE: VERTICAL: 1"=5' HORIZONTAL: 1"=50'		

PLAN AND PROFILE - I-40 BECKAHAM COUNTY

PRINT DATE: 4/27/2020 T:\1919\Drawings\Turkey Creek NEPA Footprint.dgn

200 0 200 400

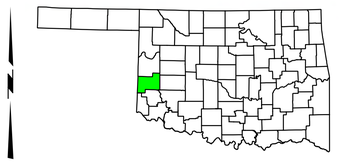
THIS DIAGRAM IS PARTIALLY DIAGRAMATIC;
EXACT DIMENSIONS WILL VARY

DRAWN BY: NGA
CHECKED BY: KG

NEPA STUDY AREA

J/P 31692(04)
I-40 OVER TURKEY CREEK
BECKHAM COUNTY, OK

MacArthur Associated Consultants
25 N.W. 146th Street ~ Edmond, OK 73013 ~ 405.848.2471
C.O.A. No. 699 Renewal Date: 06-30-21



Oklahoma Department of Transportation

DATE: 03/05/2020

200 0 200 400

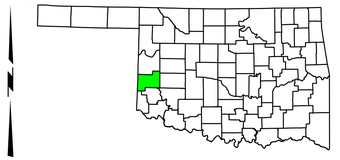
THIS DIAGRAM IS PARTIALLY DIAGRAMATIC;
EXACT DIMENSIONS WILL VARY

DRAWN BY: NGA
CHECKED BY: KG

NEPA STUDY AREA

J/P 31692(04)
I-40 OVER SAND CREEK
BECKHAM COUNTY, OK

MacArthur Associated Consultants
25 N.W. 146th Street ~ Edmond, OK 73013 ~ 405.848.2471
C.O.A. No. 699 Renewal Date: 06-30-21



Oklahoma Department of Transportation

DATE: 03/05/2020

PRINT DATE: 4/27/2020 T:\1919\Drawings\Sand Creek NEPA Footprint.dgn

SECTION 106

CULTURAL RESOURCES STUDIES

OKLAHOMA Transportation

Environmental Programs Division
Office 405.521.3050 / Fax 405.522.5193

DATE: March 1, 2021

TO: Angela Aikman, NEPA Project Manager
Kate Golden, Environmental Project Manager

FROM: Kristina Wyckoff, Cultural Resources Program

SUBJECT: Beckham County JP 31692(04): Bridge and approaches I-40 at Turkey Creek (east and westbound) and Sand Creek (eastbound), located 16.2 and 19.9 miles east of the Texas State Line.

ODOT completed Section 106 consultation on behalf of FHWA for proposed improvements to the eastbound and westbound bridges carrying I-40 over Turkey Creek and to the eastbound bridge carrying I-40 over Sand Creek southwest of Sayre; 49.9 acres were surveyed. ODOT determined the proposed project will have no effect on historic properties.

No intact archaeological deposits associated with any previously recorded archaeological sites were found to extend into the project study area and no new archaeological sites were recorded during this investigation.

Of the five National Bridge Inventory (NBI) bridge locations included in the project study area, three bridges (NBI 17529, 17530, and 14138) will be replaced and two (NBI 17562 and 17497) are within the Area of Potential Effect (APE) but will not be included within the project. All five bridges were included in the Advisory Council for Historic Preservation (ACHP) Program Comment for common post-1945 concrete and steel bridges and were not documented.

Consultation with the State Historic Preservation Office (File no. 0991-21) and the State Archaeologist (OAS FY21-932) resulted in concurrence with our assessment and determination.

ODOT-CRP also consulted with the following tribes: Apache Tribe of Oklahoma, Cheyenne and Arapaho Tribes, Comanche Nation, Kiowa Tribe, Osage Nation, Wichita and Affiliated Tribes.

An avoidance memo is included for cultural resources in the project vicinity.

KCW

OKLAHOMA Transportation

Environmental Programs Division
Office 405.521.3050 / Fax 405.522.5193

DATE: March 1, 2021

TO: Project Management Division

FROM: Kristina Wyckoff – Cultural Resources Program

SUBJECT: Beckham County JP 31692(04): Bridge and approaches I-40 at Turkey Creek (east and westbound) and Sand Creek (eastbound), located 16.2 and 19.9 miles east of the Texas State Line.

There are potentially significant cultural resources within the general vicinity of the referenced project. Please have the following note added to a section of the project plans entitled "Environmental Mitigation Notes" per Policy Directive C-201-2D(2):

Locations outside the project area in the following area must not be utilized for borrow, equipment staging, haul roads, spoil dumps or any off-site project-related activity.

T9N R24W:

Section 10:	**SE¼**	**SE¼**
Section 11:	**NW¼**	**SW¼**
Section 15:	**N½**	**NE¼**
Section 15:	**E½**	**NW¼**
Section 15:	**SW¼**	**SE¼**

Oklahoma Historical Society *Founded May 27, 1893*
State Historic Preservation Office
Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

February 1, 2021

Mr. Scott Sundermeyer, Director
ODOT Cultural Resources Program
111 East Chesapeake, Room 102
Norman, OK 73019

RE: File #0991-21; Turkey Creek & Sand Creek Bridge Replacements on I-40, #JP-31692(04)

Dear Mr. Sundermeyer:

We have received and reviewed the documentation submitted on the referenced project in Beckham County. Based on the information provided, it is our understanding that the bridge replacement project will remain within the existing right-of-way. In addition, three previously recorded archaeological sites were documented within the area of potential effect (APE) for the project: 34BK13, a multicomponent site, 34BK49, a prehistoric period single burial located within the median of I-40, and 34BK50, a prehistoric-period archaeological site.

With regard to the prehistoric-period component of 34BK13, 34BK49, and 34BK50, we defer opinion on the National Register of Historic Places (NRHP) eligibility and project effect to the State Archaeologist with the Oklahoma Archeological Survey.

For the historic-period component of 34BK13, it is our understanding that only the portion of the site that is located within the disturbed right-of-way was surveyed and that it is the opinion of the ODOT cultural resources staff that the site extends further away from the APE which will be will be avoided by project activities.

Therefore, in the case of the "avoidance" recommendations, we consider the area of potential effect to be redefined. We find that there are no properties eligible for the National Register of Historic Places within affected areas. We reserve the right to review and render an opinion on National Register eligibility of 34BK13 should any activities take place at this location in the future.

In addition to our review, you must contact the Oklahoma Archeological Survey (OAS), 111 E. Chesapeake, #102, Norman OK 73019-5111 (#405/325-7211, FAX #405/325-7604), to obtain a determination about the presence of prehistoric resources that may be eligible for the National Register of Historic Places. Should the OAS conclude that there are no prehistoric archaeological sites as defined in 36 CFR Part 800.16(l), which are eligible for inclusion in the National Register of Historic Places within the project area and that such sites are unlikely to occur, we concur with that opinion.

The OAS may conclude that an on-site investigation of all or part of the project impact area is necessary to determine the presence of archaeological resources. In the event that such an investigation reveals the presence of prehistoric archaeological sites, we will defer to the judgment of the OAS concerning whether or not any of the resources should be considered "historic properties" under the Section 106 review process. If sites dating from the historic period are identified during the survey or are encountered during implementation of the project, additional assessments by the State Historic Preservation Office will be necessary.

RE: File #0991-21; Turkey Creek & Sand Creek Bridge Replacements on I-40, #JP-31692(04)

Please reference the above underlined file number when responding. If you have any questions, please contact Catharine M. Wood, Historical Archaeologist, at 405/521-6381. Thank you.

Sincerely,

Lynda Ozan
Deputy State Historic
Preservation Officer

LO:pm

cc: Dr. Kary Stackelbeck, State Archaeologist, Oklahoma Archeological Survey

Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

February 26, 2021

Scott Sundermeyer, Director
ODOT Cultural Resources Program
3200 Marshall Ave, Room 110
Norman, OK 73019

Re: OAS FY21-932 *Cultural Resources Survey Report: I-40 Improvement over Turkey Creek and Sand Creek Near Texas State Line*
Report by Kristina Wyckoff, Kirsten Tharalson, & Cari Foster (ODOT CRP Staff)
ODOT J/P: 31692(04)
Legal Description: Section 7-8, 17-18, T9N, R23W; Section 14-15, T9N, R24W
Beckham County, Oklahoma

Dear Mr. Sundermeyer,

This agency received the submitted ODOT cultural resources survey report of investigations regarding the above-referenced undertaking for review and comment. From the information provided, we understand that ODOT staff surveyed the 23.54-acre study area, which encompasses the Area of Potential Effect (APE), on August 10 & October 22, 2020. Three previously recorded sites (**34BK49, 34BK13, 34BK50)** were mapped as being located within the study area, however no evidence of the sites was found during the current investigation. Additionally, five bridges were documented in the APE, but are recommended as not eligible for listing on the National Register of Historic Properties (NRHP). No other archaeological materials were identified within the APE. As such, ODOT recommends a determination of *No Effect on Historic Properties.*

I concur with the findings and recommendations as they pertain to prehistoric archaeological resources and defer opinion and overall project effects to the State Historic Preservation Office.

This review has been conducted in cooperation with the State Historic Preservation Office, Oklahoma Historical Society. You must also have a letter from that office to document your consultation pursuant to Section 106 of the National Historic Preservation Act.

Sincerely,

Kary L. Stackelbeck, Ph.D.
State Archaeologist

cc: SHPO

111 Chesapeake, Room 102, Norman, Oklahoma 73019-5111 PHONE: (405) 325-7211 FAX: (405) 325-7604
A UNIT OF ARTS AND SCIENCES SERVING THE PEOPLE OF OKLAHOMA

OKLAHOMA Transportation

ODOT CULTURAL RESOURCES PROGRAM
3200 Marshall Ave, Room 110
Norman 73019
www.odotculturalresources.info

January 13, 2021

Ms. Lynda Ozan
Deputy State Historic Preservation Officer
State Historic Preservation Office
Oklahoma Historical Society
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105-7917

Dear Ms. Ozan:

Re: Beckham County Federal Highway Administration (FHWA) Project: JP 31692(04); Proposed Interstate 40 (I-40) bridge replacements over Turkey Creek (east and westbound) and Sand Creek (eastbound) southwest of Sayre, Oklahoma; submittal for comment under Section 106 of the National Historic Preservation Act.

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highways Administration (FHWA), is proposing replacement of the existing I-40 bridges and approaches over Turkey Creek (east and westbound) and Sand Creek (eastbound) located 16.2 and 19.7 miles east of the Texas County Line. The existing bridges have a roadway width of 38 feet consisting of two 12-foot driving lanes with 4-foot inside and 10-foot outside shoulders; the proposed replacement bridges will retain these features. All three bridges will be replaced on the existing alignment within existing right-of-way and no utility relocations will occur for the proposed project.

The project footprint, which is proposed to be the Area of Potential Effect (APE) for the undertaking, consists of two polygons limited to the existing I-40 right-of-way. The first is an approximately 0.79-mile corridor of I-40 beginning approximately 3,185 feet west of the BK-17 overpass over I-40 and extending east 4,182 feet to a point approximately 997 feet east of the BK-17 overpass over I-40; the second polygon is an approximately 0.96-mile (5,055-foot) corridor of I-40, beginning approximately 150 west of BK-20 and extending east 5,055 feet to a point approximately 153 feet east of BK-21. Each of the study area polygons are 190 to 250 feet wide, reaching from 40 to 70 feet north of the I-40 west bound centerline and from 70 to 90 feet south of the I-40 east bound centerline, following the curves of I-40. In total, the study area encompasses approximately 49.90 acres, with the polygon over Turkey Creek encompassing 26.36 acres and the polygon over Sand Creek encompassing 23.54 acres.

Three previously recorded archaeological sites (34BK13, 34BK49, and 34BK50) were updated during the current investigation.

No intact archaeological deposits were identified within the project study area. Update forms with revised boundaries for three previously recorded archaeological sites (34BK13, 34BK49, and 34BK50) mapped within or extending into the I-40 right-of-way are attached and copies have been submitted to the Oklahoma Archaeological Survey.

Of the five National Bridge Inventory (NBI) bridge locations included in the proposed project area, three bridges (NBI 17529, 17530, and 14138) are proposed to be replaced and two bridges (NBI 17562 and 17497) are within the APE but will not be included within the project. All five bridges (NBI 17497, 14138, 17529, 17530, and 17562) were included in the Advisory Council for Historic Preservation (ACHP) Program Comment for common post-1945 concrete and steel bridges and were not documented.

Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, it is our opinion that the project, as proposed, will have no effect on historic properties. We respectfully request your concurrence or comments to our opinion.

If you have any questions regarding this project, please contact me at 325-7201.

Sincerely,

Scott Sundermeyer
Director, ODOT Cultural Resources Program

cc: State Archaeologist

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CULTURAL RESOURCES SURVEY REPORT

Beckham 31692(04): I-40 Improvements over Turkey Creek (East and West Bound) and Sand Creek (East Bound) near Texas State Line

Prepared by:

ODOT Cultural Resources Program

Kristina Wyckoff, archaeologist
Kirsten Tharalson, archaeologist
Cari Foster, architectural historian

January 11, 2021

Lead Federal Agency: Federal Highways Administration (FHWA)

OKLAHOMA Transportation

County:	Beckham
J/P#:	31692(04)
Surveyed by:	Kristina Wyckoff, Kirsten Tharalson, and Mike McKay
Survey Date:	8/10/2020 and 10/22/2020

MANAGEMENT SUMMARY:
ODOT Cultural Resources Program (CRP) conducted a Phase I cultural resources investigation for the proposed replacement of the existing I-40 bridges over Turkey Creek and Sand Creek southwest of Sayre, Oklahoma.

The project fieldwork consisted of field investigations by archaeologists Kristina Wyckoff, Kirsten Tharalson, and Mike McKay on August 10, 2020 and October 22, 2020, and by architectural historian Cari Foster.

Shovel tests were excavated at regular intervals throughout the existing I-40 right-of-way with close-interval shovel tests excavated where previously recorded archaeological sites overlap the project study area. Within the mapped site boundaries all shovel tests were negative for archaeological materials. No intact archaeological deposits associated with any previously recorded archaeological sites (34BK13, 34BK49, 34BK50) were found to extend into the project study area, and no new archaeological sites were recorded during this investigation. Update forms with revised site boundaries were submitted to the Oklahoma Archaeological Survey

Based on the results of this investigation, it is our opinion the proposed project will have no effect on historic properties.

1. PROJECT DESCRIPTION:

This report documents a cultural resources investigation for the proposed replacement of the existing I-40 bridges and approaches over Turkey Creek [east (NBI 17529) and west (NBI 17530) bound] and Sand Creek [east bound (NBI 14138)] located 16.2 and 19.7 miles east of the Texas State Line. The three existing bridges each have a roadway width of 38 feet consisting of two 12-foot driving lanes with 4-foot inside shoulders and 10-foot outside shoulders; the proposed replacement bridges will retain these features. All three bridges will be replaced on the existing alignment within existing right-of-way (R/W).

The project study area consists of two polygons located entirely within existing R/W: the first is an approximately 0.79-mile (approximately 4,182-foot) corridor of I-40, beginning approximately 3,185 feet west of the BK-17 overpass over I-40 and extending east 4,182 feet to a point approximately 997 feet east of the BK-17 overpass over I-40; the second polygon is an approximately 0.96-mile (5,055-foot) corridor of I-40, beginning approximately 150 west of BK-20 and extending east 5,055 feet to a point approximately 153 feet east of BK-21. Each of the study area polygons are 190 to 250 feet wide, reaching from 40 to 70 feet north of the I-40 west bound centerline and from 70 to 90 feet south of the I-40 east bound centerline, following the curves of I-40.

In total, the study area encompasses approximately 49.90 acres, with the polygon over Turkey Creek encompassing 26.36 acres and the polygon over Sand Creek encompassing 23.54 acres.

The existing bridge carrying I-40 east bound over Turkey Creek is a stringer / multi-beam girder constructed in 1969 (ODOT Structure # 0501 1622 SX; NBI # 17529). This structure is included in the March 2005 Advisory Council on Historic Preservation (ACHP) Interstate Highway System exemption that relieves Federal agencies from taking into account the effects of their actions on the Interstate Highway System and is not subject to review. As such, this structure was not documented.

The existing bridge carrying I-40 west bound over Turkey Creek is a stringer / multi-beam girder constructed in 1969 (ODOT Structure # 0501 1622 NX; NBI # 17530). This structure is included in the March 2005 ACHP Interstate Highway System exemption that relieves Federal agencies from taking into account the effects of their actions on the Interstate Highway System and is not subject to review. As such, this structure was not documented.

The existing bridge carrying County Road NS-185 over I-40 is a stringer / multi-beam girder constructed in 1969 (ODOT Structure # 0501 1645 X; NBI 17562). This structure is included in the March 2005 ACHP Interstate Highway System exemption that relieves Federal agencies from taking into account the effects of their actions on the Interstate Highway System and is not subject to review. As such, this structure was not documented.

The existing bridge carrying I-40 east bound over Sand Creek is a stringer / multi-beam girder constructed in 1958 (ODOT Structure # 0501 1998 SX; NBI # 14138). This structure is included in the March 2005 ACHP Interstate Highway System exemption that relieves Federal agencies from taking into account the effects of their actions on the Interstate Highway System and is not subject to review. As such, this structure was not documented.

The existing bridge carrying I-40 west bound over Sand Creek is a stringer / multi-beam girder constructed in 1969 (ODOT Structure # 0501 1998 NX; NBI # 17497). This structure is included in the March 2005 ACHP Interstate Highway System exemption that relieves Federal agencies from taking into account the effects of their actions on the Interstate Highway System and is not subject to review. As such, this structure was not documented.

Legal Location:	T9N R23W Sections 7-8, 17-18 T9N R24W Sections 14-15
U.S.G.S. Quadrangle:	Sayre (1989)

2. ENVIRONMENTAL SETTING:

Built Environment Setting:

The project is located southwest of the town of Sayre on Interstate 40, a four lane west/eastbound highway and adjacent to westbound US Route 66/I-40 Frontage Road. A bridge carries interstate I-40 over Sand Creek and two bridges run over Turkey Creek. No buildings are located within the project study area.

Geomorphology, Geology, and Soils:

The project study area is mapped across the Western Sand-Dune Belts where hummocky fields of grass-covered, stabilized sand dunes and some active dunes, occur mainly on the northern sides of major rivers; sand is from Quaternary alluvium and terrace deposits (Johnson and Luza 2008).

The study area is mapped across Quaternary alluvium and dune sand deposits (Heran et al. 2003).

As mapped in the California Soil Resource Lab's SoilWeb Map (2008), soils and sediments in the study area belong to the Nobscot, Spur, Devol, Delwin, Cyril, and Westola soil series. Soils mapped in the Nobscot series are described as having a shallow brown fine sand A horizon [0-12 centimeters below surface (cmbs)], over a moderately thick pink fine sand E horizon (12-58 cmbs), over a moderate red sandy loam B horizon (58-91 cmbs), over a red loamy sand B horizon (91-135 cmbs), over a reddish yellow loamy sand B horizon (135-180 cmbs), overlying a reddish yellow fine sand BC horizon (180-203 cmbs). Soils mapped in the Spur series are described as having a moderately thick brown clay loam A horizon (0-38 cmbs), over a thick brown clay loam B horizon (38-97 cmbs), over a brown clay loam B horizon (97-127 cmbs), overlying a light reddish brown clay loam B horizon (127-152 cmbs). Soils mapped in the Devol series are described as having a moderately thick light brown loamy fine sand Ap horizon (0-36 cmbs), over a moderate reddish brown fine sandy loam B horizon (36-69 cmbs), over a yellowish red fine sandy loam BC horizon (69-102 cmbs), overlying a brown loamy fine sand C horizon (102-163 cmbs). Soils mapped in the Delwin series are described as having a shallow light brownish gray fine sand Ap horizon (0-13 cmbs), over a relatively thick brown fine sand E horizon (13-41 cmbs), over a moderate reddish brown sandy clay loam B horizon (41-81 cmbs), over a series of yellowish red sandy clay loam B horizons (81-183 cmbs), overlying a yellowish red sandy clay loam BC horizon (183-203 cmbs). Soils mapped in the Cyril series are described as having a moderately thick dark grayish brown fine sandy loam Ap horizon (0-30 cmbs), over a thick gray loam A horizon (30-86 cmbs), over a light brownish gray loam B horizon (86-122 cmbs), overlying a light brown loam BC horizon (122-152 cmbs). Soils mapped in the Westola series are described as having a shallow reddish brown fine sandy loam Ap horizon (0-18 cmbs), over a shallow fine sandy loam A horizon (18-28 cmbs), over a thick reddish brown fine sandy loam C horizon (28-102 cmbs), overlying a reddish brown loam C horizon (102-203 cmbs).

As mapped in the California Soil Resource Lab's SoilWeb Map (2008), there is a low potential (6%) for encountering Gracemont series soils in the area immediately surrounding Sand Creek. Soils mapped in the Gracemont series are described as having a moderately thick dark reddish brown fine sandy loam A horizon (0-36 cmbs), over a relatively thick dark red fine sandy loam C horizon (36-86 cmbs), over a dark reddish brown fine sandy loam C horizon (86-117 cmbs), overlying a very dark brown loam Ab horizon (117-163 cmbs). Gracemont series soils have potential for buried A horizons below 46 inches (117 cmbs).

Vegetation:

The study area is mapped within Shinnery Oak Grasslands which are restricted to western Oklahoma; the primary species in this vegetation type is shinnery which involves dense networks of underground roots and biomass (Johnson and Luza 2008).

According to the USGS Land Cover Map (2011), the study area cuts across developed land within the existing I-40 right-of-way, and scrub brush, herbaceous pastures, and mixed forests in the small portions of the study area beyond existing right-of-way. Google Earth (2020) imagery is consistent with the Land Cover Map and illustrates sodded right-of-way with scrub brush and pastures beyond existing right-of-way and riparian vegetation along the creeks and drainages.

Surface Visibility:

_____	0-25%	
XXX	25-50%	Mixed grasses in interstate right-of-way
_____	50-75%	
XXX	75-100%	Cut banks and eroded areas

---

3. CULTURAL BACKGROUND:

Background Research:

XXX State Site Files at Oklahoma Archeological Survey (OAS)

XXX State Historic Preservation Office (SHPO) National Register of Historic Places (NRHP) listings, Determinations of Eligibility (DOE) in Oklahoma listings, and Oklahoma Landmarks Inventory (OLI) files, accessed online

Archaeology Background:

A review of the Oklahoma Archeological Survey (OAS) maps indicates that three previously-recorded archaeological sites (34BK13, 34BK49, and 34BK50) are mapped as within or overlapping a portion of the project study area and eleven previously-recorded archaeological sites (34BK9, 34BK12, 34BK21, 34BK171, 34BK178-184) are recorded within the study area's one-mile vicinity.

Site 34BK13 is mapped on a slightly sloping terrace within the Turkey Creek study area, approximately 240 feet east of Turkey Creek. The site was recorded by Sherman Lawton in 1963. No materials or site description are described on the site form, though it is noted that a house was on the site at the time it was recorded. This site form does not include an assessment of NRHP eligibility.

Site 34BK49 is mapped across the existing I-40 median approximately 1,035 feet west of the Turkey Creek bridge. The site was documented in 1973 by David Lopez, James Cox, and J. Johnson as a salvage operation during initial construction of the I-40 roadway. The site represented an isolated burial of a single female individual located eight- to nine-feet below the surface of a windblown sand dune. Two deer cannon bone awls and a core or preform were documented in association with the burial. The site form and report do not include an assessment of NRHP eligibility, but the burial and all associated cultural materials were excavated by the salvage excavation (Lopez et al. 1979:638-642).

Site 34BK50 is mapped on a sloping terrace above the west bank of Turkey Creek partially within the Turkey Creek study area, approximately 900 feet west of the Turkey Creek bridge. The site was recorded in 1973 by David Lopez, James Cox, and J. Johnson as part of the same salvage excavation that documented 34BK49. The site is recorded as a small open prehistoric camp site. The site was described as a thin cultural deposit which had been disturbed by cultivation, erosion, and borrow pit activities. Materials from the site were described as including cores, flakes, cobbles and fragments, a hammerstone, bone, and a Scallorn-like projectile point. This site form and report do not include an assessment of NRHP eligibility.

Beyond the project study area but within the one-mile vicinity, site 34BK9 (the Bell site) is mapped on a sloping terrace just east of Turkey Creek, approximately 3,150 feet south of the Turkey Creek study area. The site was recorded by Don G. Wyckoff in 1962 as a prehistoric habitation site; materials at the site are described as including Harrell points, Fresno points, other projectile points, shell, animal bones, pot sherds, broken triangular sandstone, and lithic debitage. This site has not been assessed for NRHP eligibility.

Site 34BK12 (the Berry site) is mapped on the top and east slopes of a sandy ridge above Turkey Creek, approximately 865 feet north of the Turkey Creek study area. The site was originally recorded by J.E. McGuire in 1962 and updated by Richard Drass and Don Dycus in 1994. The site is a Plains Village camp; materials at the site are described as including cores, mano and grinding basin fragments, burned bone,

broken and tested cobble fragments, and flakes. This site has been assessed as not eligible for inclusion in the NRHP.

Site 34BK21 is mapped on a knoll overlooking Turkey Creek, approximately 2,050 feet north of the Turkey Creek study area. The site was originally recorded by Lawton in 1963 as a prehistoric site and updated by Richard Drass in 1994 when Drass found no evidence of a prehistoric site at the location; instead the site location had a 20th century wood frame house, a cellar, and a small structure with a few pieces of metal and earthenware around the house. This site has not been assessed for NRHP eligibility.

Site 34BK171 (the Turkey Creek Camp site) is mapped on an upland ridge just east of Turkey Creek, approximately 650 feet north of the Turkey Creek study area. This site was originally reported by J.E. McGuire in the 1960s and updated by Richard Drass and Don Dycus in 1994 as a Plains Village camp; materials at the site are described as including plain pottery sherds, bifaces, scrapers, faunal remains, utilized cobbles, sandstone pieces (some burned), and lithic debitage. This site has not been assessed for inclusion in the NRHP.

Site 34BK178 (Stewart Campsite #1) is mapped on a terrace along the south edge of Turkey Creek, approximately 1,370 feet north of the Turkey Creek study area. The site was recorded by Richard Drass and Don Dycus in 1994 as an unassigned prehistoric camp; materials at the site are described as including cores, tested cobbles, hammerstones, a flake, sandstone pieces, and mussel shells. This site was assessed as not eligible for inclusion in the NRHP.

Site 34BK179 (Stewart Campsite #2) is mapped on a terrace along the south edge of Turkey Creek, approximately 1,330 feet north of the Turkey Creek study area. The site was recorded by Richard Drass and Don Dycus in 1994 as a large Plains Village camp; materials at the site are described as including a small piece of ground stone, quartzite cobbles, sandstone pieces, Alibates flakes, a Fresno point, small pieces of bone, and mussel shells. This site was assessed as not eligible for inclusion in the NRHP.

Site 34BK180 (Manning Campsite #1) is mapped on a terrace along the north edge of Turkey Creek, approximately 2,410 feet north of the Turkey Creek study area. The site was recorded by Richard Drass and Don Dycus in 1994 as a small unassigned prehistoric camp; materials at the site are described as including a mano, cobbles, flakes, sandstone pieces, and mussel shell. This site was assessed as not eligible for inclusion in the NRHP.

Site 34BK181 (Manning Campsite #2) is mapped on an elevated dune and adjacent swale overlooking the North Fork of the Red River's floodplain, approximately 2,900 feet north of the Turkey Creek study area. The site was recorded by Richard Drass and Don Dycus in 1994 as a large unassigned prehistoric campsite and 20th century farmstead. Prehistoric materials at the site are described as including a corner-notched arrow point, flakes, manos, ground stone fragments, hammerstones, cores, tested cobbles, and mussel shell; 20th century materials at the site are described as including foundation stones, legs from stoves or other large iron furniture, glass, ceramics, and metal. This site was assessed as not eligible for inclusion in the NRHP.

Site 34BK182 (Manning Campsite #3) is mapped on a terrace between the North Fork of the Red River and Turkey Creek, approximately 2,890 feet north of the Turkey Creek study area. The site was recorded by Richard Drass and Don Dycus in 1994 as a multi-component Late Archaic, Late Plains Woodland, and Plains Village campsite; materials at the site are described as including cordmarked and smoothed-over cordmarked pottery sherds, corner-notched arrow points, corner-notched dart points, ground stone fragments, burned sandstone, broken cobbles, flakes, cores, manos, hammerstones, small pieces of bone, and mussel shell fragments. This site was assessed as not eligible for inclusion in the NRHP.

Site 34BK183 (Manning Campsite #4) is mapped on a terrace along the north side of Turkey Creek, approximately 2,380 feet north of the Turkey Creek study area. The site was recorded by Richard Drass and Don Dycus in 1994 as a Plains Village camp; materials at the site are described as including plain pottery sherd, ground stone fragments, a mano fragment, flakes, broken cobbles, and mussel shell fragments. This site was assessed as not eligible for inclusion in the NRHP.

Site 34BK184 (Manning Campsite #5) is mapped on an upper terrace on the north side of Turkey Creek,

approximately 2,210 feet north of the Turkey Creek study area. The site was recorded by Richard Drass and Don Dycus in 1994 as a Plains Village camp; materials at the site are described as including a corner-notched arrow point, cores, tested cobbles, flakes, manos, grinding basin fragments, hammerstones, and small pieces of bone and mussel shell. The site was assessed as not eligible for inclusion in the NRHP.

Robert Brooks includes Beckham County in "Region 1" of his Resource Protection Planning Process Manuscript (Brooks 1983). "Region 1" includes the 11 westernmost counties in Oklahoma, which make up the Panhandle, including Black Mesa, and the eastern boundary of the Short Grass Prairie (Brooks 1983:2). Sporadic archaeological studies have been conducted in this region, the majority of which occurred after increased federal funding was available in the 1960s. Brooks reports in 1979, 883 archaeological sites had been recorded in this region as a whole; one-third of those recorded sites had been identified during federally funded projects while the remaining two-thirds were reported by local informants. According to the Oklahoma Atlas of Archaeological Sites and Management Activities, in 2004, 213 archaeological sites had been recorded in Beckham County (Brooks 2005). Currently there are 267 archaeological sites recorded in Beckham County.

Prehistoric archaeological sites recorded in the general region of the project, specifically those mapped on the Sayre topographic quadrangle map, are generally recorded on terraces, rises, and ridges overlooking drainages, especially Turkey Creek. Previously recorded prehistoric sites in the project's general area have been identified by surface scatters of lithic artifacts. The locations of 19th and 20th century archaeological sites tend to reflect agricultural heritage of Beckham County and are widely scattered across the county, but tend to be located along section line roads, intersections, and within or adjacent to the small regional commercial centers. Four non-extant occupations dating to the mid-20th century are depicted in the immediate vicinity of the study are on historic maps (1936 GHM) and aerial images (1950 and 1956); these locations will be field checked to determine whether archaeological features and/or deposits are present.

METHODOLOGY:

4. Field Investigation Methodology:

The entire project study area is confined within the extensively disturbed existing I-40 right-of-way. However, because three previously recorded sites are mapped as within or overlapping portions of the project study area pedestrian survey with shovel tests excavated at 30-meter intervals was conducted to confirm disturbance and determine if any cultural resources remained in the previously disturbed I-40 R/W. Close-interval shovel tests were excavated (at 10-meter intervals) within and adjacent to the mapped location of the three previously recorded archaeological sites. All excavated dirt was screened through ¼-inch hardware cloth. Additionally, all creek banks, eroded areas, and road cuts in the study area were thoroughly inspected for evidence of archaeological material.

---

5. RESULTS OF INVESTIGATION:

XXX No archeological sites or buildings recorded in study area.

_____ Resources recorded in study area assessed as **not eligible** for the NRHP. Forms being submitted for agency review.

_____ Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

_____ Historic Preservation Resource Identification Form(s) for SHPO files.

_____ Oklahoma Bridge Survey and Inventory Form.

_____ **NRHP-eligible properties** recorded in study area.

Forms being submitted for agency review.

_____ Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

_____ Historic Preservation Resource Identification Form(s) for SHPO files.

_____ Oklahoma Bridge Survey and Inventory Form.

_____ Archeological sites requiring further assessment (i.e. evaluative testing)

COMMENTS AND DESCRIPTION OF FINDINGS:

No archaeological materials were identified or documented in the project study area during the current investigation. No buildings are located within the study area, and no bridges within the study area required documentation or assessment.

As noted previously, the project study area is confined to the existing I-40 right-of-way and has been extensively disturbed by the original roadbed construction activities.

Three archaeological sites (34BK13, 34BK49, and 34BK50) were previously recorded and mapped within or overlapping the project study area—two of which (34BK49 and 34BK50) were identified and recorded as part of salvage efforts during the construction of I-40. The mapped location of each previously recorded archaeological site within the study area was shovel tested for evidence of archaeological materials. No archaeological materials were identified within the project study area. Update forms for each of these sites have been submitted to the Oklahoma Archaeological Survey.

The burial comprising site 34BK49, documented by David Lopez et al. in 1973, was exposed by construction of the interstate I-40 roadbed grade and was exhumed as an archaeological salvage operation at that time. The burial was recovered from 8- to 9-feet below the surface in a windswept dune at the median and westbound lanes of I-40. The existing median at the mapped location of this site has been extensively disturbed and reworked by construction of the existing I-40 interstate roadway grade and drainage. The ground surface of the median at the mapped location of the site was revisited and inspected. Because the single burial that characterized the site was excavated in 1973, no additional shovel tests were excavated in the interstate median during this investigation. Site 34BK49 appears to have been completely removed as a result of the salvage excavations and original I-40 construction. As stated above, an update form for site 34BK49 has been submitted to the Oklahoma Archaeological Survey.

Sediments observed in shovel tests excavated throughout the project study area comprised brown fine sand (approximately 0-50+ cmbs) and brown loamy fine sand (approximately 0-20 cmbs) overlaying reddish brown fine sandy loam (approximately 20-60 cmbs).

---

6. RECOMMENDATIONS:

XXX **Plan Notes** requiring avoidance of cultural resources in off-project areas

XXX **Approval Recommended** with the proposed project as planned with no additional research. If subsurface archaeological materials are exposed during construction, the Contractor and Resident Engineer shall notify the Department Archaeologist in accordance with Section 202.04(a), Standard Specifications for Highway Construction.

_____ **Approval NOT Recommended,** until one or more of the following measures are completed.

_____ **Additional consultation with SHPO** regarding NRHP-eligible Properties

_____ **Revise design** to avoid/protect resources

_____ **NRHP Eligibility Archaeological Test Excavations**

_____ **Implementation of MOA** with SHPO regarding Mitigation of Adverse Effects to Historic Properties

SUMMARY AND COMMENTS REGARDING RECOMMENDATIONS:

ODOT Cultural Resources Program (CRP) conducted a Phase I cultural resources investigation for the proposed replacement of the existing I-40 bridges over Turkey Creek and Sand Creek southwest of Sayre, Oklahoma. The project study area is entirely confined within the existing interstate I-40 right-of-way and has been extensively disturbed by construction of the existing interstate roadway and drainages and by buried utilities infrastructure.

No archaeological materials or deposits were identified or recorded within the project study area. Update forms with revised boundaries for three previously recorded archaeological sites (34BK13, 34BK49, and 34BK50) have been submitted to the Oklahoma Archaeological Survey.

Pursuant to 36 CFR 800.4(d)(1) and based on the results of this investigation, it is our opinion the proposed project will have no effect on historic properties.

In order to avoid impacts to cultural resources that have not been assessed for NRHP eligibility in the project vicinity by off-project activity such as borrow pit excavation or staging of heavy equipment, it is recommended that the following areas be avoided for the establishment of off-project facilities:

T9N R24W
Section 10: SE¼ SE¼
Section 11: NW¼ SW¼
Section 15: N ½ NE¼
Section 15: E ½ NW¼
Section 15: SW¼ SE¼

REFERENCES

Beckham County aerial imagery (1950, 1955)

Beckham County General Highway and Transportation Map (GHM) (1936, 1950, 1962, 1969, 1976)

Brooks, Robert L.
1983 *Resource Protection Planning Process Management Region 1*. Report submitted to the State Historic Preservation Office Oklahoma Historical Society. Unpublished manuscript on file at the Oklahoma Archeological Survey, Norman.
2005 Oklahoma Atlas of Archaeological Sites and Management Activities. http://www.ou.edu/cas/archsur/Atlas/atlas.htm, accessed online March 4, 2020.

Ca Soil Resource Lab
2008 SoilWeb: interface to USDA-NCSS SSURGO and STATGO Soil Survey Products. https://casoilresource.lawr.ucdavis.edu/soilweb-apps/.

Cassity, Michael,
2002 "Oklahoma Route 66 Historic Resources Survey, 1926-1970" Oklahoma State Historic Preservation Office, https://www.okhistory.org/shpo/thematic/rt66hr26-70.pdf,(accessed September 1, 2020)

Department of History, Oklahoma State University, Oklahoma State Historic Preservation Office
"Reconnaissance Level Survey of Five Southwestern Oklahoma Towns"
https://www.okhistory.org/shpo/architsurvey/RLSof5SWTownsPt1.pdf (accessed September 1, 2020)

General Land Office (GLO) Original Survey Map (1874)

Heran, W. D., G. Green, and D. B. Stoeser
2003 A Digital Map Database of Oklahoma. U.S.G.S. Open File Report 03-247

Johnson, Kenneth S. and Kenneth V. Luza (editors)
2008 Earth Science and Minerals Resources of Oklahoma. Oklahoma Geological Survey, University of Oklahoma.

Lopez, David R., Kenneth D. Keith, Timothy G. Baugh, John Penman, Jack L. Hofman, James M. Briscoe, James E. Cox, Jr., Roger S. Saunders, Kyle P. McKinley
1979 Oklahoma Highway Archaeological Survey highway archaeological reconnaissance program, 1972-1978. Prepared for the Oklahoma Department of Transportation, report on file at the Oklahoma Archaeological Survey, Norman.

Oklahoma Historic Society, Oklahoma State Historic Preservation Office
The Oklahoma Route 66 Association, "Oklahoma Route 66 Roadbed Documentation project (1926-1970): A Survey of Roadbed and Integral Structures (2001-02)" https://www.okhistory.org/shpo/thematic/rt66roadbed.pdf (accessed September 1, 2020)

USGS Delhi 7.5' Quadrangle (1989)

USGS Sayre 7.5' Quadrangle (1989)

US Geological Survey, 20140331, NLCD 2011 Land Cover (2011 Edition) US Geological Survey, Sioux Falls, SD.

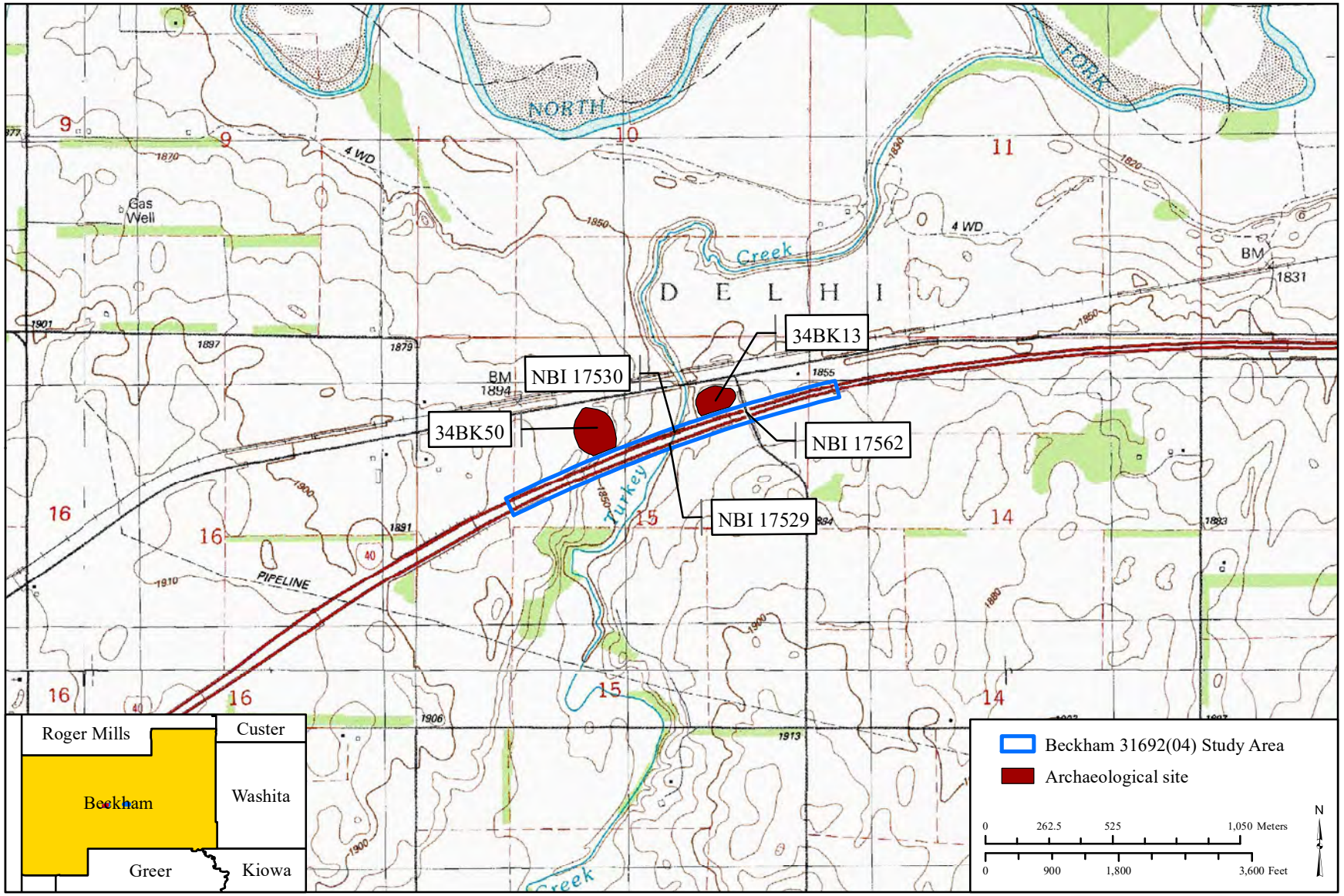


Figure 1 a. Beckham County JP 31692(04): I-40 Improvements over Turkey Creek (East and West Bound) and Sand Creek (East Bound) Near Texas State Line.

Basemap: USGS Sayre 7.5' Topographic Quadrangle (1989)
Legal location: T9N R23W Sections 7-8, 17-18
T9N R24W Sections 14-15

OKLAHOMA Transportation

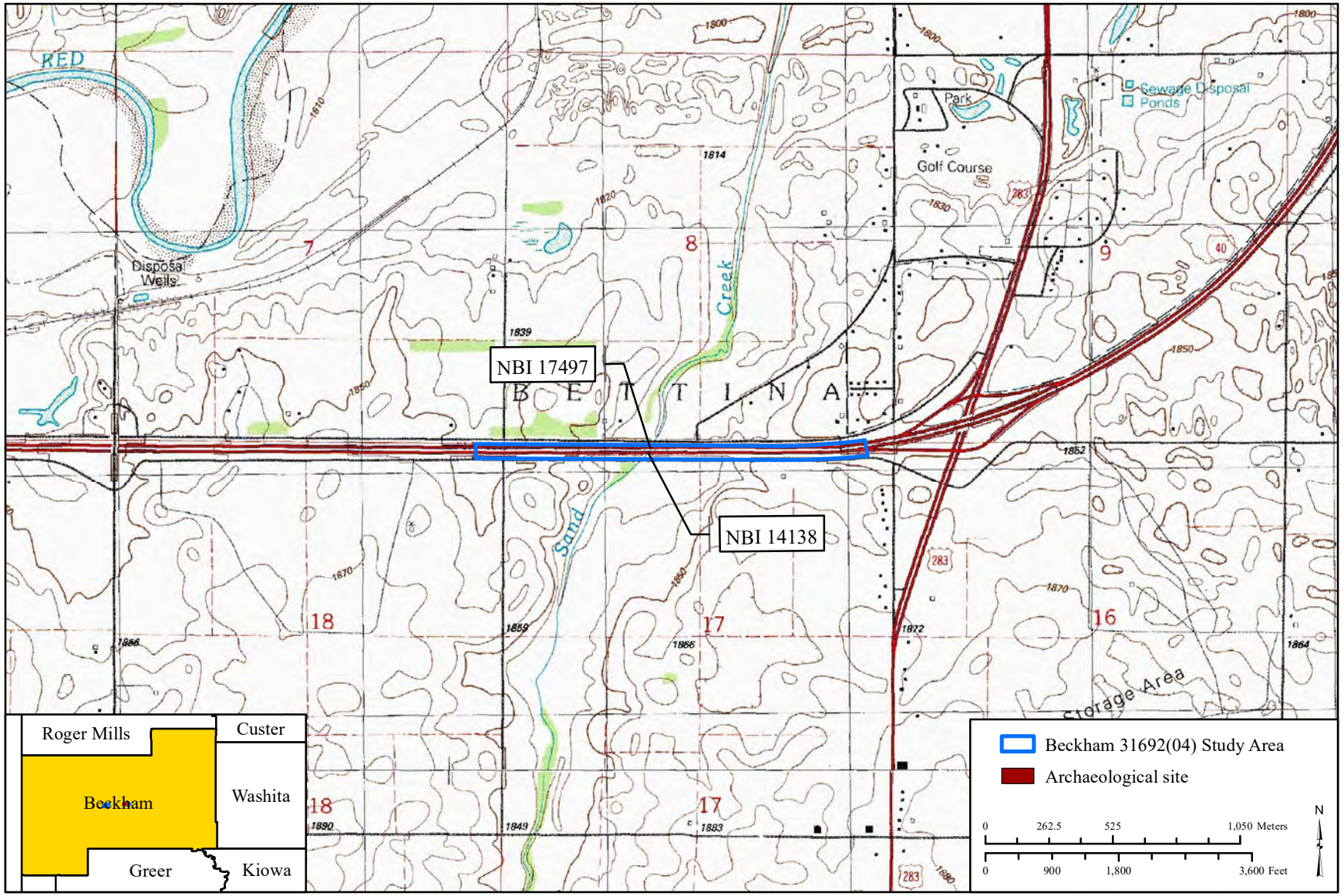


Figure 1 b. Beckham County JP 31692(04): I-40 Improvements over Turkey Creek (East and West Bound) and Sand Creek (East Bound) Near Texas State Line.

Basemap: USGS Sayre 7.5' Topographic Quadrangle (1989)
Legal location: T9N R23W Sections 7-8, 17-18
T9N R24W Sections 14-15

OKLAHOMA Transportation

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

March 11, 2021

To: ODOT Cultural Resources Program

From: Rhonda S. Fair, Director – Tribal Coordination

Re: Summary of tribal consultation for Beckham County JP# 31692(04) - Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line

---

A file search conducted on 5/19/2020 and found no known potentially sensitive areas in the project area or its vicinity.

The following tribes were consulted on 5/19/2020 and 1/14/2021:

- Apache Tribe of Oklahoma
- Cheyenne & Arapaho Tribes
- Comanche Nation
- Kiowa Tribe
- Osage Nation
- Wichita & Affiliated Tribes

The following comments were received:

- Comanche Nation: No properties identified (9/15/2020).
- Osage Nation: No known Osage resources in the project area (6/15/2020). No effect, avoidance areas recommended (3/8/2021).

Based on the file search and tribal comments, the following areas are listed for avoidance by contractor-selected off-project facilities:

- T9N R24W
  - Section 10
    - SE SE
  - Section 11
    - NW SW
  - Section 15
    - N/2 NE
    - E/2 NW
    - SW SE

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 19, 2020

Apache Tribe of Oklahoma
Attn: Chairman Bobby Komardley
P.O. Box 1330
Anadarko, OK 73005

Dear Chairman Komardley:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				
Location	Sec 15 T9N R24W and Sec 8 & 17 T9N R23W. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒no This project will require new or temporary right of way: ☒ yes ☐no This project involves ground disturbance: ☒ yes ☐no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

January 14, 2021

Apache Tribe of Oklahoma
Attn: Chairman Durell Cooper
P.O. Box 1330
Anadarko, OK 73005

Dear Chairman Cooper:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation updated three previously recorded archaeological sites, but did not record any new archaeological sites. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 19, 2020

Cheyenne & Arapaho Tribes
Attn: Governor Reggie Wassana
P.O. Box 38
Concho, OK 73022

Dear Governor Wassana:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				
Location	Sec 15 T9N R24W and Sec 8 & 17 T9N R23W. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒no This project will require new or temporary right of way: ☒ yes ☐no This project involves ground disturbance: ☒ yes ☐no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Max Bear, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

January 14, 2021

Cheyenne & Arapaho Tribes
Attn: Governor Reggie Wassana
P.O. Box 38
Concho, OK 73022

Dear Governor Wassana:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation updated three previously recorded archaeological sites, but did not record any new archaeological sites. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Max Bear, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 19, 2020

Comanche Nation
Attn: Martina Minthorn, THPO
P.O. Box 908
Lawton, OK 73502

Dear Ms. Minthorn:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				
Location	Sec 15 T9N R24W and Sec 8 & 17 T9N R23W. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒no This project will require new or temporary right of way: ☒ yes ☐no This project involves ground disturbance: ☒ yes ☐no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Chairman William Nelson

COMANCHE NATION

Oklahoma Department of Transportation
Attn: Ms. Rhonda S. Fair
200 N.E. 21st Street
Oklahoma 73105

September 15, 2020

Re: Bridge replacement and approach improvements on Interstate 40 over Turkey Creek, (east and west bound) and Sand Creek (east bound only), Located 16.2 miles and 19.9 miles east of the Texas state line Beckham County, Oklahoma, JP# 31692(04)

Dear Ms. Fair:

In response to your request, the above reference project has been reviewed by staff of this office to identify areas that may potentially contain prehistoric or historic archeological materials. The location of your project has been cross referenced with the Comanche Nation site files, where an indication of ***"No Properties"*** have been identified. (IAW 36 CFR 800.4(d)(1)).

Please contact this office at (580) 595-9960/9618) if you require additional information on this project.

This review is performed in order to identify and preserve the Comanche Nation and State cultural heritage, in conjunction with the State Historic Preservation Office.

Regards

Comanche Nation Historic Preservation Office
Theodore E. Villicana , Technician
#6 SW "D" Avenue, Suite C
Lawton, OK. 73502

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

January 14, 2021

Comanche Nation
Attn: Martina Minthorn, THPO
P.O. Box 908
Lawton, OK 73502

Dear Ms. Minthorn:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation updated three previously recorded archaeological sites, but did not record any new archaeological sites. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Chairman William Nelson

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 19, 2020

Kiowa Tribe
Attn: Chairman Matthew M. Komalty
P.O. Box 369
Carnegie, OK 73015

Dear Chairman Komalty:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				
Location	Sec 15 T9N R24W and Sec 8 & 17 T9N R23W. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒no This project will require new or temporary right of way: ☒ yes ☐no This project involves ground disturbance: ☒ yes ☐no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

January 14, 2021

Kiowa Tribe
Attn: Chairman Matthew M. Komalty
P.O. Box 369
Carnegie, OK 73015

Dear Chairman Komalty:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation updated three previously recorded archaeological sites, but did not record any new archaeological sites. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 19, 2020

Osage Nation
Attn: Principal Chief Geoffrey Standing Bear
627 Grandview
Pawhuska, OK 74056

Dear Principal Chief Standing Bear:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				
Location	Sec 15 T9N R24W and Sec 8 & 17 T9N R23W. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒no This project will require new or temporary right of way: ☒ yes ☐no This project involves ground disturbance: ☒ yes ☐no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Tribal Historic Preservation Office

Rhonda Fair

From: Johnnie Jacobs <johnnie.jacobs.ctr@osagenation-nsn.gov>
Sent: Monday, June 15, 2020 12:02 PM
To: Rhonda Fair
Subject: [EXTERNAL] 1920-3810OK-5, ODOT, 31692(04), Bridge Replacement and Approach Improvements on I-40 over Turkey Creek and Sand Creek, Beckham Co, OK, No Known

Date: June 15, 2020 **File: 1920-3810OK-5**

RE: ODOT, 31692(04), Bridge Replacement and Approach Improvements on I-40 over Turkey Creek and Sand Creek, Beckham County, Oklahoma

Oklahoma Department of Transportation
Rhonda Fair
200 NE 21st Street, Room 3A8
Oklahoma City, OK 73105-3204

Dear Dr. Fair,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project **ODOT, 31692(04), Bridge Replacement and Approach Improvements on I-40 over Turkey Creek and Sand Creek, Beckham County, Oklahoma**. There are no known Osage resources within the project area. This office looks forward to reviewing the final report.

The Osage Nation requests that the report include a project site plan map indicating the locations of screened shovel tests labeled by their field identification numbers and a table listing shovel test locations, width (cm), actual depth (cm) of each level, soils of each level, and results. Shovel test minimum width is 30 cm. Shovel test minimum depth is to 50 cm or sterile soil, whichever is encountered first. If terminated before sterile soil is reached, please provide an explanation either in the text or in the shovel test log.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Thank you,

Miss Johnnie Jacobs
Historic Preservation Specialist
Osage Nation Historic Preservation Office
627 Grandview Avenue
Pawhuska, OK 74056

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

January 14, 2021

Osage Nation
Attn: Principal Chief Geoffrey Standing Bear
627 Grandview
Pawhuska, OK 74056

Dear Principal Chief Standing Bear:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation updated three previously recorded archaeological sites, but did not record any new archaeological sites. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Tribal Historic Preservation Office

Rhonda Fair

From: Johnnie Jacobs <johnnie.jacobs.ctr@osagenation-nsn.gov>
Sent: Monday, March 8, 2021 9:41 AM
To: Rhonda Fair
Subject: [EXTERNAL] 2021-1519OK-10, ODOT, 31692(04), Bridge Replacement and Approach Improvements on I-40 over Turkey Creek, Beckham County, OK

Date: March 8, 2021 **File: 2021-1519OK-10**

RE: ODOT, 31692(04), Bridge Replacement and Approach Improvements on I-40 over Turkey Creek and Sand Creek, Beckham County, Oklahoma

Oklahoma Department of Transportation
Rhonda S. Fair
200 N.E. 21st Street, Room 3-A8
Oklahoma City, OK 73105

Dear Ms. Fair,

The Osage Nation Historic Preservation Office has evaluated your submission and concurs that the proposed ODOT, 31692(04), Bridge Replacement and Approach Improvements on I-40 over Turkey Creek and Sand Creek, Beckham County, Oklahoma most likely will not adversely affect any sacred properties and/or properties of cultural significance to the Osage Nation. **For direct effect, the finding of this NHPA Section 106 review is a determination of "No Effect." We request the following locations to be avoided for any off-site project activity including borrow site locations, staging areas, or temporary roads/construction locations.**

T9N R24W

Section 10: SE¼ SE¼
Section 11: NW¼ SW¼
Section 15: N ½ NE¼
Section 15: E ½ NW¼
Section 15: SW¼ SE¼

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d) (6) (A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969). The Osage Nation concurs that the Oklahoma Department of Transportation has fulfilled NHPA compliance by consulting with the Osage Nation Historic Preservation Office in regard to the proposed ODOT, 31692(04), Bridge Replacement and Approach Improvements on I-40 over Turkey Creek and Sand Creek, Beckham County, Oklahoma.

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. With the recommended avoidance measures, we do not anticipate that this project will adversely impact any cultural resources or human remains protected under the NHPA, NEPA, the Native American Graves Protection and Repatriation Act, or Osage law. **If artifacts or human remains are discovered during project construction, we ask that work cease immediately and the Osage Nation Historic Preservation Office be contacted.**

Should you have any questions or need any additional information please feel free to contact me at the email address listed above. Thank you for consulting with the Osage Nation on this matter.

Thank you,

Ms. Johnnie Jacobs
Historic Preservation Specialist
Osage Nation Historic Preservation Office
627 Grandview Avenue
Pawhuska, OK 74056

The Osage Nation has experienced setbacks due to the pandemic and vacancies in several archaeology positions over the past 10 months. Therefore, Section 106 inquiries and the 30-day clocks have been tolled at the Osage Nation and this will continue until further notice. This is in line with the Advisory Council on Historic Preservation recommendations due to the pandemic situation at the Osage Nation and specifically our office. The Osage Nation appreciates your patience during this time.

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 19, 2020

Wichita & Affiliated Tribes
Attn: President Terri Parton
P.O. Box 729
Anadarko, OK 73005

Dear President Parton:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				
Location	Sec 15 T9N R24W and Sec 8 & 17 T9N R23W. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒no This project will require new or temporary right of way: ☒ yes ☐no This project involves ground disturbance: ☒ yes ☐no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Mary Botone, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

January 14, 2021

Wichita & Affiliated Tribes
Attn: President Terri Parton
P.O. Box 729
Anadarko, OK 73005

Dear President Parton:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Beckham	**Job Piece #**	31692(04)	**Anticipated Let Date**	2025
Project description	Bridge replacements and approach improvements on Interstate 40 over Turkey Creek (east and west bound) and Sand Creek (east bound only), located 16.2 miles and 19.9 miles east of the Texas state line				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation updated three previously recorded archaeological sites, but did not record any new archaeological sites. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,

Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Jacey Lamar, THPO

BIOLOGICAL STUDIES

BIOLOGICAL STUDIES TRACKING FORM

NEPA Project Manager	Angela Aikman / Erin Faulkner
State or Local Government Project	State
USFWS TAILS #	**02EKOK00-2020-SLI-2454**
Original IPaC List	7/24/2020
Email used to request IpaC official species list	cmporter@pldi.net
Last Updated Species List Date	Click here to enter a date.
ROW	11/1/2020
Let Date	FFY 2025
90 Day Prior to Let IpaC List	Click here to enter a date.
Duration expected	Click here to enter text.
Original Biological Assessment and Waters and Wetlands Report Prepared By:	Able / Blackbird
Most Recent Field Date:	7/23/2023
Original Report Date:	8/3/2020
USFWS Consultation Submittal:	8/28/2020
USFWS Concurrence:	8/31/2020
Original Tracking Form Prepared by:	Elizabeth Nichols
Original Tracking Form date:	8/31/2020
Update Reason	Click here to enter text.
Updated By Whom:	Click here to enter text.
Amended USFWS Consultation Submittal:	Click here to enter a date.
Amended USFWS Concurrence:	Click here to enter a date.
Tracking Form Updated By Whom:	Click here to enter text.
Tracking Form Updated Date:	Click here to enter a date.
ADD MORE LINES AS NEEDED FOR EACH TIME PROJECT IS UPDATED	

Form Date: April 2020

Project Name from Oracle

Bridge and Approaches on I-40 over Sand Creek and Turkey Creek, 16.2 and 19.7 miles east of the Texas State Line

Project Description

Bridge and Approaches or bridge widening/structure extension

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

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

2. FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Species	Listing Status	IPaC Check if Yes	Effect Determination for IPaC listed species
Interior Least Tern	Endangered	☒	No Effect
Red-cockaded Woodpecker	Endangered	☐	Choose an item.
Whooping Crane	Endangered	☒	May Affect, Not likely to adversely affect
Gray Bat	Endangered	☐	Choose an item.
Indiana Bat	Endangered	☐	Choose an item.
Ozark Big-eared Bat	Endangered	☐	Choose an item.
Neosho Mucket	Endangered	☐	Choose an item.
Ouachita Rock Pocketbook	Endangered	☐	Choose an item.
Scaleshell Mussel	Endangered	☐	Choose an item.
Winged Mapleleaf	Endangered	☐	Choose an item.
American Burying Beetle	Endangered	☐	Choose an item.
Harperella	Endangered	☐	Choose an item.
Piping Plover	Threatened	☒	No Effect
Red Knot	Threatened	☒	No Effect
Northern Long-eared Bat	Threatened	☐	Choose an item
Arkansas River Shiner	Threatened	☐	Choose an item.
Leopard Darter	Threatened	☐	Choose an item.
Neosho Madtom	Threatened	☐	Choose an item.
Ozark Cavefish	Threatened	☐	Choose an item.
American Alligator	Threatened	☐	Choose an item.
Rabbitsfoot Mussel	Threatened	☐	Choose an item.
Rattlesnake-master Borer Moth	Candidate	☐	Choose an item.
Whooping Crane Critical Habitat	Designated	☐	Choose an item.
Arkansas River Shiner Critical Habitat	Designated	☐	Choose an item.
Leopard Darter Critical Habitat	Designated	☐	Choose an item.
Neosho Mucket Critical Habitat	Designated	☐	Choose an item.
Rabbitsfoot Critical Habitat	Designated	☐	Choose an item.

	NEPA Footprint	Construction Footprint
Number of acres within the NEPA Study Footprint & Construction Footprint (if known)	65.83	Click here to enter text.

Bald Eagle Assessment	May impact
Migratory Bird Assessment of Transportation Structures	Migratory birds found nesting on transportation structures
Migratory bird habitat assessment	nesting habitat for migratory birds will be impacted
Birds of Conservation Concern	Listed BCC may be impacted

Species (choose those that apply)	Seasonal Restriction Period
Bald Eagle	September 16 – May 31
Migratory Birds: Swallows and Phoebes (NESTS PRESENT)	March 1 – August 31

Conservation Commitments

ODOT Commitment: All operators, employees, and contractors will be made aware of all environmental commitments, including the following Plan Notes.

Tree Removal Minimization Commitment: 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, during the design of the project. Tree removal will be limited to that specified in the project plans provided to contractors.

Species Plan Notes

Non-Compliance: Failure to implement the commitments specified in the Plan Notes can result in non-compliance issues on the project. Work activities may be suspended on the project, for an undetermined duration, while working with regulators to bring the project back into compliance. The contractor will not be compensated for time lost.

Water Quality Conservation: Appropriate Best Management Practices to minimize impacts from storm water discharges and sedimentation in streams, as established by the Oklahoma Department of Environmental Quality, shall be conscientiously implemented throughout the proposed construction periods, in order to minimize any potential impacts to any listed species. 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 outside of the ordinary high water mark (OHWM). 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. Preventative measure must be taken to prohibit the discharge of contaminants into any surface waters.

Whooping Crane Plan Note: If Whooping Cranes are seen at or within one mile of the proposed work site, the Resident Engineer shall immediately contact the ODOT Biologist. If there is a confirmed sighting and/or Whooping Cranes are observed within one mile of the proposed work site, all construction activities shall cease until it is determined that Whooping Cranes have left the project vicinity without being harassed.

Bald Eagle Note: Suitable nesting, roosting or foraging habitat for the Bald Eagle occurs within the project's action area. The Bald Eagle nesting season in Oklahoma extends from September 16, through May 31. The Resident Engineer shall contact the ODOT Biologist to schedule a nest survey. Nest search surveys can only be conducted when leaves are not on the trees typically between December 1st and February 28th. No work may occur within suitable Bald Eagle habitat, located the full extent of the Sand Creek portion of the project, during the nesting season (September 16, through May 31) until the completion of the survey by the ODOT Biologist. If nests are observed, a no-work buffer up to a distance of 660 feet shall be placed around the nest. The exact distance of the buffer zone shall be established by the ODOT Biologist in consultation with US Fish and Wildlife Services. If the buffer cannot be maintained, all clearing, external construction and landscaping activities, within the buffer, 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 March 1 to August 31. Migratory bird nesting use of the Sand Creek bridge (NBI:14138), Turkey Creek bridges (NBI:17529 & 17530), and NS-185 bridge over I-40 (NBI:17562) was observed. Painting, repair, retrofit, rehabilitation or demolition of the existing bridges and culverts shall be conducted between September 1, and February 28, when migratory bird nests are not occupied. If painting, repair, retrofit, rehabilitation or demolition cannot be completed between September 1 and February 28, the bridges shall be protected from new nest establishment prior to March 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 March 1. Methods other than netting must be pre-approved by the ODOT Biologist.

Although no nests were observed on all other structures, the birds may occupy the structures in the future. The Resident Engineer shall contact the ODOT Biologist if any bird use of these structures is observed. If birds are observed then painting, repair, retrofit, rehabilitation or demolition of the existing bridges shall be conducted between September 1, and February 28 (when migratory bird nests are not occupied).

Waters and Wetlands Delineation Status

Original delineation

Wetlands and Ponds

Total Number of Sites	Water Body Type	Potential Jurisdiction Status	Acres within the NEPA Footprint
1	Herbaceous Wetland	Likely Jurisdictional	0.073

Streams and Drainages

Total Number of sites	Water body name	USGS Designation	Potential Jurisdictional Status	Acres within the NEPA Footprint	Liner Feet within the NEPA Footprint
1	Turkey Creek	mapped perennial	Likely Jurisdictional	0.181	430
1	Sand Creek	mapped intermittent	Likely Jurisdictional	0.320	295
Total Likely Jurisdictional				**0.501**	**725**

Nichols, Elizabeth

From: Kreisler, Skye E <skye_kreisler@fws.gov>
Sent: Monday, August 31, 2020 12:49 PM
To: Nichols, Elizabeth
Cc: Amber McIntyre
Subject: Re: [EXTERNAL] 02EKOK00-2020-SLI-2454_20200828_ODOT Beckham JP 31692(04) Consultation Review Package Submittal

Follow Up Flag: Flag for follow up
Flag Status: Flagged

02EKOK00-2020-SLI-2454

Hello Liz,

The Service has reviewed the consultation submission for **Beckham County JP 31692(04)** ("project") **-** *(Bridge and Approaches on I-40 in Oklahoma over Sand Creek (19.7 miles east of Texas state line) and Turkey Creek (16.2 miles east of Texas state line).*

Though updates to conservation measures for **whooping crane** (*Grus americana*) in Oklahoma may be forthcoming, the conservation measures provided in this consultation package are appropriate for this project. This concludes the section 7(a)(2) consultation pursuant to the Endangered Species Act of 1973 (Act; 87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) for whooping crane.

The Service asks that, within 90 days prior to start of construction, you request a current species list to determine if any changes to federally-listed species have occurred. If any changes have occurred, please verify with the Service if further consultation will be required. The Service also asks that all best management practices for maintaining water quality in streamside zones be reviewed and implemented. Additionally, the biological assessment reported numerous migratory bird nests on three of the five structures involved in this project (NBI numbers 14138, 17529, and 17562). The Service asks that measures to avoid and minimize impacts to migratory birds be implemented as articulated in the consultation submission, and in conjunction with guidance set forth by the Federal Highway Administration.

The online project review concurrence letter signed by the Field Supervisor is now valid. If you have any questions concerning this matter, please contact the Oklahoma Ecological Services Field Office.

Sincerely.

Skye Kreisler
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 E 21st Street
Tulsa, OK 74129

(571) 242-7104 Mobile

From: Kreisler, Skye E <skye_kreisler@fws.gov> on behalf of OK Project Review, FWS <OKProjectReview@fws.gov>
Sent: Friday, August 28, 2020 4:01 PM
To: Kreisler, Skye E <skye_kreisler@fws.gov>

Subject: Fwd: [EXTERNAL] 02EKOK00-2020-SLI-2454_20200828_ODOT Beckham JP 31692(04) Consultation Review Package Submittal

Get Outlook for iOS

From: Nichols, Elizabeth <elizabeth.nichols@ou.edu>
Sent: Friday, August 28, 2020 11:30:37 AM
To: OK Project Review, FWS <OKProjectReview@fws.gov>
Cc: Amber McIntyre <amcintyre@odot.org>
Subject: [EXTERNAL] 02EKOK00-2020-SLI-2454_20200828_ODOT Beckham JP 31692(04) Consultation Review Package Submittal

Hi Skye,
Since we have not received a response to our Whooping Crane commitments inquiry, we are proceeding with projects with our existing commitments that we have been using the last few years.

Thank you,
Liz

Elizabeth Nichols
Assistant Manager, Natural Resources Program
Oklahoma Department of Transportation
Oklahoma Biological Survey
111 E. Chesapeake
Norman, OK 73019
405.325.6802 (office)
elizabeth.nichols@ou.edu

August 2015

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
9014 East 21st Street
Tulsa, Oklahoma 74129
918/581-7458 / (FAX) 918/581-7467

8/19/2020

Online Project Review Concurrence Letter

To: Elizabeth Nichols
ODOT Natural Resources Program at OU
111 E. Chesapeake
Norman, OK 73019
405-325-6802, elizabeth.nichols@ou.edu

Project Name: Beckham JP 31692(04) Bridge and Approaches on I-40 over Sand Creek and Turkey Creek, 16.2 miles and 19.7 miles east of the Texas State line

Consultation Code: 02EKOK00-2020-SLI-2454

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Oklahoma Ecological Services Field Office (ESFO) online project review process. By providing this letter in conjunction with your complete project review package, you are certifying that you have accurately completed the online project review process for the referenced project in accordance with all instructions provided, using the best available information to reach your conclusions. Concurrence with "not likely to adversely affect" determinations does not provide any exemption for violations of section 9 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA) or "take" of federally-listed species. The Federal action agency is ultimately responsible for ensuring compliance with the ESA and any take that occurs due to your proposed action would be considered a violation under section 9 of the ESA.

This letter and the enclosed project review package complete the review of your project in accordance with the ESA. This letter also provides information for your project review under the National Environmental Policy Act (National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C.4321-4347, 83 Stat. 852), as amended.

A copy of this letter and the project review package must be emailed to **okprojectreview@fws.gov** for this certification to be valid. This letter and the project review package will be maintained in Service records. **Please allow the Oklahoma ESFO 45 days to review your information. If the Oklahoma ESFO determines that the package is not complete, or that additional coordination is necessary, we will contact your office. If, after 45 days from the date of your email submittal of your project review package, the Oklahoma ESFO has not contacted your office, consider your section 7 consultation complete.**

The proposed action consists of:

The proposed action includes activities associated with a bridge and approaches construction project. The road will remain open and detoured on crossovers. NBI: 17529 and NBI: 17530 (Turkey Creek) will be replaced with three (3) span (65-foot, 80-foot, 65-foot) type III PC beam bridges. NBI: 14138 (Sand Creek) will be replaced with a three (3) span (65-foot, 65-foot, 65-foot) type III PC beam bridge. Rip rap will be added to the embankments. The new typical section will include four (4), 12-foot wide, paved lanes with 10-foot wide, paved shoulders and a 70-foot wide divided median.

Project start and completion dates:

FFY 2025

Federal agency or federal program providing a permit, funding, grant, authorization, loan, etc. associated with the proposed project and how that agency is associated with your project:

FHWA

Federal Agency/Program Point of contact (Name, phone, and email address):

The ODOT, acting as the duly authorized agent for the Federal Highway Administration, is initiating Section 7 consultation for the above mentioned project as a component of the agency's implementation of the procedural provisions of the National Environmental Policy

The species conclusions table in the enclosed project review package summarizes your ESA conclusions. These conclusions resulted in "not likely to adversely affect/modify" determinations for listed species and critical habitat in relation to potential effects of your proposed project. We certify that the use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with determinations of "not likely to adversely affect" for listed species and critical habitat reached by proper use of this process. For projects where this particular determination is reached, additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages efforts to avoid or minimize adverse impacts to them from project effects. Some federal agencies have standing policies that grant limited protections to candidate species. Conservation of candidate species now may preclude future needs to federally list them as endangered or threatened, at which point their legal protection would become required. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of listed species or critical habitat becomes available, this determination may be reconsidered. You should re-visit the Service's Information, Planning, and Conservation (IPaC) website at http://ecos/fws.gov/ipac/ within 90 days of project initiation to ensure species information is correct. If new species or critical habitat is identified, this letter is no longer valid and a new project package should be submitted to the Oklahoma ESFO.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Oklahoma is available at our website: <http://www.fws.gov/southwest/es/oklahoma/ >. If you have any questions, please call 918-581-7458 or send an email message to OKProjectReview@fws.gov.

Sincerely,
/s/ Jonna Polk
Field Supervisor
Oklahoma Ecological Services Field Office

Enclosures:

1) ENTIRE PROJECT REVIEW
   - ☑ PACKAGE: Species Conclusion Table
   - ☑ IPaC Species List and Action Area map
   - ☑ This letter (Online Concurrence Letter)
   - ☑ (Optional) Additional maps
2) Other relevant project data/documents

Briefly describe the other relevant project data/documents you are providing.

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

For

USFWS TAILS #		**02EKOK00-2020-SLI-2454**			
Email used to request IPaC official species list		cmporter@pldi.net			
County	Beckham	JP Number	31692(04)	Project Number	
Road Number	Interstate 40 (I-40)	Waterbody Name		Sand Creek and Turkey Creek	
ROW Date	November 2020	Let Date	FFY 2025	Project Length	Approximately 10,180 Feet
Project General Location		I-40 located 16.2 and 19.7 miles east of the Texas State Line			
Project Statement From Oracle		Bridge and Approaches on I-40 over Sand Creek and Turkey Creek			

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

Prepared by:

Biologist Name	Clint M. Porter
Company/Agency Name	Blackbird Environmental, LLC
Address	PO Box 720100
City, State Zip	Norman, OK 73070

Report Date:	August 3, 2020
Field Survey Date	July 23, 2020
Field Survey Biologist(s)	Clint M. Porter

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

Bridge and Approaches or bridge widening/structure extension

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

The typical section included four (4) 12-foot wide paved lanes with 10-foot wide paved shoulders and a 70-foot wide divided median. Six (6) bridges were included within the study area. NBI: 17497 is west-bound I-40 [N 35.26203, W 99.65794, NAD83] (FS-1) (Sand Creek) including three (3), 50-foot I-beam spans and was constructed in 1969. NBI: 14138 is east-bound I-40 [N 35.26186, W 99.65804, NAD83] (FS-1) (Sand Creek) including three (3), 50-foot I-beam spans and was constructed in 1958. NBI: 14139 is north I-40 frontage road [N 35.26226, W 99.65784, NAD83] (FS-1) (Sand Creek) including three (3), 50-foot I-beam spans and was constructed in 1958. NBI: 17530 is west-bound I-40 [N 35.25884, W 99.72371, NAD83] (FS-2) (Turkey Creek) including three (3) (56-foot, 70-foot, 56-foot) continuous plate girder spans and was constructed in 1969. NBI: 17529 is east-bound I-40 [N 35.25847, W 99.72391, NAD83] (FS-2) (Turkey Creek) including three (3) (56-foot, 70-foot, 56-foot) continuous plate girder spans and was constructed in 1969. NBI: 17562 is County Road North/South 185 (NS-185) over I-40 [N 35.25961, W 99.72043, NAD83] including four (4) (33-foot, 95-foot, 95-foot, 33-foot) plate girder spans and was constructed in 1969. The present traffic ADT (vehicles per day) was estimated at 5,950. The future ADT (20-year projection) was not provided. The proposed action will replace three (3) bridges (NBI: 14138, NBI: 17529 and NBI: 17530) that are at risk of being structurally deficient and improve traffic safety.

Description of **proposed** improvements

The proposed action includes activities associated with a bridge and approaches construction project. The road will remain open and detoured on crossovers. NBI: 17529 and NBI: 17530 (Turkey Creek) will be replaced with three (3) span (65-foot, 80-foot, 65-foot) type III PC beam bridges. NBI: 14138 (Sand Creek) will be replaced with a three (3) span (65-foot, 65-foot, 65-foot) type III PC beam bridge. Rip rap will be added to the embankments. The new typical section will include four (4), 12-foot wide, paved lanes with 10-foot wide, paved shoulders and a 70-foot wide divided median.

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

Work within OHWM is expected			X
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**	
Section Range & Township	Lat/Long NAD 83)	Dimensions	Acreage	Level IV Ecoregion (Woods et al. 2005)	Game Type (Duck and Fletcher 1943)
Sections 7, 8, 14, 15, 17, 18, T9N, R23W	west end: N 35.25601, W 99.73142; east end: N 35.26214, W 99.64799	The study area varied between 280 and 310 feet wide and included approximately 10,180 feet of Interstate 40 (I-40)	65.83 Acres	Pleistocene Sand Dunes of Central Great Plains	Tall Grass Prairie

Action Area:
The action area includes the NEPA Study Area and 0.25-mile buffer around NEPA Study Area.

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**
Interior Least Tern	X	☐	☐	☐
Red-cockaded Woodpecker	☐			☐
Whooping Crane	X	☐		☐
Gray Bat	☐	☐		☐
Indiana Bat	☐			☐
Ozark Big-eared Bat	☐			☐
Neosho Mucket	☐	☐	☐	☐
Ouachita Rock Pocketbook	☐	☐	☐	☐
Scaleshell Mussel	☐	☐	☐	☐
Winged Mapleleaf	☐	☐	☐	☐
American Burying Beetle	☐			☐
Harperella	☐			☐
Piping Plover	X			☐

Species	IPaC[1]	Watershed[2]	Water Body[3]	Records[4]
	Check if Yes	Check if YES	Check if Yes	Check if Yes
Red Knot	X			☐
Northern Long-eared Bat	☐			☐
Arkansas River Shiner	☐	☐	☐	☐
Leopard Darter	☐	☐	☐	☐
Neosho Madtom	☐	☐	☐	☐
Ozark Cavefish	☐	☐		☐
American Alligator	☐			☐
Rabbitsfoot Mussel	☐	☐	☐	☐
Rattlesnake-master Borer Moth	☐			☐

[1]Species is on the Proposed Project's IPaC List
[2]Action Area is within a watershed associated with occupied water bodies
[3]Action Area includes an occupied water body
[4]Project site within 5 miles of known records

Designated or Proposed Critical Habitat	Action Area includes Designated Critical Habitat (Check √ if Yes)
Whooping Crane	☐
Arkansas River Shiner	☐
Leopard Darter	☐
Neosho Mucket	☐
Rabbitsfoot	☐

All or part of the action area is within an **American Burying Beetle** Conservation Priority Area ☐

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) ☐

IPaC Special Conditions Identified (wind energy projects or cell towers) for **Interior Least Terns** X
IPaC Special Conditions Identified (wind energy projects or cell towers) for **Piping Plovers** ☐

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 Plains
Soil Name	Nobscot-Delwin
Soil Type	Alfisols
Soil Characteristics	Very Deep, Loamy, Slightly Acidic and Humus-Poor Soils on Gentle Slopes (7%)

Climate (Use Woods et al. 2005)

Precipitation	Mean annual inches (Pleistocene Sand Dunes)	22 to 34
Growing Season	Number of days (Pleistocene Sand Dunes)	190 to 220
Mean Temperatures	Summer min/max (Pleistocene Sand Dunes)	70/95
	Winter min/max (Pleistocene Sand Dunes)	22/49

River System

Sand Creek (intermittent stream) and Turkey Creek (perennial stream) were mapped within the study area. Sand Creek and Turkey Creek are tributaries to North Fork to Red River. North Fork to Red River is a tributary to Red River; therefore, part of the Red River drainage basin.

Land Use and Land Ownership

From Woods et al. 2005	According to Woods et al. (2005), land use is primarily rangeland, but some croplands occur within this ecoregion. The main crops are grain sorghum, wheat and alfalfa. Sand dunes are important shelter for wildlife, particularly during prolonged cold or wet.
From Field investigation	Habitat within the general vicinity of the study area included cropland, rangeland and maintained right-of-way. The study area included maintained right-of-way.

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

The study area was dominated by one (1) general habitat type, mixed grass field. Common grass species within the mixed grass field included bermuda (*Cynodon dactylon*), little bluestem (*Schizachyrium scoparium*), Johnson grass (*Sorghum halepense*), silver bluestem (*Bothriochloa saccharoides*), brome grasses (*Bromus* spp.) and buffalo grass (*Bouteloua dactyloides*). Annual ragweed (*Ambrosia artemisiifolia*) and nightshade (*Solanum* spp.) were also common within these areas. Riparian forest was observed immediately north and south of the study area and included elm (*Ulmus* spp.), hackberry (*Celtis* spp.), black willow (*Salix nigra*), eastern cottonwood (*Populus deltoides*), western soapberry (*Sapindus saponaria*) and Osage orange (*Maclura pomifera*). Other

common species along the open edges and understory included green briar (*Smilax* spp.), poison ivy (*Toxicodendron radicans*), coral berry (*Symphoricarpos orbiculatus*), bristle grass (*Setaria* sp.) and panic grasses (*Panicum* spp.).

Sand Creek (FS-1) was dominated by silt, clay and sand substrates with a mature, forested riparian corridor north and south of the study area. Small, isolated pools of water were observed within the stream channel and supported *Gambusia affinis*. The stream embeddedness was difficult to estimate due to recent construction immediately south of east-bound I-40 (NBI: 14138). Sediment accumulation was observed within the channel around the recent construction. The sediment accumulation was likely associated with recently disturbed soils. Limited wetland vegetation was growing within the channel. The stream was associated with NBI: 14138, NBI: 14139 and NBI: 17497.

Turkey Creek (FS-2) was dominated by silt, clay and sand substrates with a mature, forested riparian corridor north and south of the study area. Shallow flowing water was observed within the stream channel and supported *Gambusia affinis* and *Lepomis* sp. in pool and run habitat. The stream embeddedness was difficult to estimate in the absence of large cobble and/or boulder. However, no significant sediment accumulation (islands and/or point bars) was observed within the channel. *Lemna minor* was identified along the slow moving edges of the stream. The stream was associated with NBI: 17529 and NBI: 17530.

Emergent wetland (FS-3) was delineated beneath the east-bound I-40 bridge over Turkey Creek and along Turkey Creek (FS-2) south of the structure. The emergent wetland was dominated by barnyard grass and developed on low slopes along the flowing water.

3.2 Species Habitat Analysis

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

SPECIES	HABITAT	
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**.	☐
Whooping Crane	Shallowly-submerged sandbars in large river channels occur within the **0.25 miles of the NEPA Environmental Study Footprint**.	☐
	If within the 75% migration corridor, provide the number of acres of emergent wetlands that occur within the **NEPA Environmental Study Footprint**.	enter acres.
	Croplands suitable for foraging occur within the **0.25 miles of the NEPA Environmental Study Footprint** and is within the 95% migration corridor.	X

SPECIES	HABITAT	
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.**	☐
	Salt flats and mudflats associated with reservoirs occur within the **0.25 miles of the NEPA Environmental Study Footprint.**	☐
Red Knot	Mudflats associated with reservoirs occur within the **0.25 miles of the NEPA Environmental Study Footprint.**	☐

4. ANALYSIS OF EFFECTS

4.1 Direct Effects

Species/ Resource	Habitat impacts expected from project activities	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. If habitat within the action area identified above will not be impacted, describe why.
Whooping Crane		Cultivated field was observed within 0.25 mile of the study area and the study area is located within the 90 percent Whooping Crane corridor; therefore, the cultivated field could provide forage for migrating Whooping Cranes. The wheat field was approximately 700 feet north of the study area and would not likely provide preferred foraging habitat for Whooping Cranes. The presence of trees within the vicinity and rural residences with associated infrastructure limit the quality of foraging habitat. Construction presence and noise could deter cranes from stopping to forage if the project were to occur while they were migrating and they were in the area.

4.2 Indirect Effects

Long-term habitat alterations

Species/ Resource	Identify long-term, permanent changes in habitat
None	

Indirect land use impacts

None

4.3 Interrelated and Interdependent Actions and Activities

The proposed action involves road and bridge improvements, with no capacity expansion, and the proposed action will not likely impact current land use in the area; therefore, no interrelated and interdependent actions are expected.

USFWS TAILS Number:	**02EKOK00-2020-SLI-2454**
ODOT Project JP Number:	**JP 31692(04)**

SPECIES / DESIGNATED CRITICAL HABIT	CONCLUSION		ESA SECTION 7			NOTES AND DOCUMENTATION Check √ 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
Least Interior Tern	☐	☐	X	☐	☐	X	☐	☐	☐
Whooping Crane	X	☐	☐	X	☐	X	☐	☐	X
Piping Plover	☐	☐	X	☐	☐	X	☐	☐	☐
Red Knot	☐	☐	X	☐	☐	X	☐	☐	☐

CONCLUSIONS

No Effect	Interior Least Tern, Piping Plover and Red Knot
May affect, not likely to adversely affect	Whooping Crane
May affect, likely to adversely affect	

RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES

If **Whooping Cranes** are seen at or within one mile of the proposed work site, the Resident Engineer shall immediately contact the ODOT Biologist. The location and time a Whooping Crane was seen shall be recorded and provided to the ODOT Biologist. If there is a confirmed sighting and/or Whooping Cranes are observed within one mile of the proposed work site, all construction activities shall cease until it is determined that Whooping Cranes have left the project vicinity without being harassed. An 8x10 photograph of the Whooping Crane along with a written description of the bird, as well as ODOT contact information, shall be posted at the construction site at all times.

5. BALD EAGLE AND SWALLOW ASSESSMENT

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	☐	X	Large eastern cottonwood (Populus deltoides) trees were observed within the study area vicinity.
Open foraging areas with large trees	☐	X	Rangeland and hayland were observed within the vicinity of the large eastern cottonwood trees.
Distance to closest perennial water body	River or Lake	4,000 ft	North Fork to Red River is located approximately 4,000 feet north of the study area. In addition, several agricultural ponds were observed within the general vicinity.
	Stream or Pond	w/in	
Potential Bald Eagle Nests Observed	☐	☐	None observed within 660 feet of the study area during field reconnaissance.
Bald Eagles Observed in the general vicinity	☐	☐	None observed within vicinity during field reconnaissance.

General Description of Bald Eagle Nesting Habitat and Impact Determination, within the NEPA Footprint and within 660-ft of the NEPA Footprint	Large eastern cottonwood (Populus deltoides) trees were observed within the study area vicinity and along Sand Creek (FS-1). There are no known nests in the area. It is likely any eagles nesting in the area would populate more suitable habitat along North Fork, but given how close it is to the project area, eagles could potentially nest in the area.
Station #s for Buffered Bald Eagle Habitat	The full extent of construction activities along the Sand Creek portion of the project.
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.	

5.2 Migratory Bird 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 ALL 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
(NBI: 14138) Bridge over Sand Creek (FS-1) [N 35.26186, W 99.65804, NAD83].	200	0	0
(NBI: 17497) Bridge over Sand Creek (FS-1) [N 35.26203, W 99.65794, NAD83].	0	0	0
(NBI: 14139) Bridge over Sand Creek (FS-1) [N 35.26226, W 99.65784, NAD83].	0	0	0
(NBI: 17529) Bridge over Turkey Creek (FS-2) [N 35.25847, W 99.72391, NAD83].	12	0	0
(NBI: 17530) Bridge over Turkey Creek (FS-2) [N 35.25884, W 99.72371, NAD83].	0	1	0
(NBI: 17562) NS-185 over I-40 [N 35.25961, W 99.72043, NAD83].	41	5	0
Other MB and Nests Observed	None observed		
Based on existing plans, no work on suitable drainage structures will occur	☐		
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.

5.3 Birds of Conservation Concern

Species Identified on IPaC list	Breeding Season
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	May 10 to September 10
According to USFWS Probability of Presence analysis, the Red-headed Woodpecker has a relatively high probability of presence within the study area during the breeding season between beginning of May and end of July. Poor quality habitat for the Red-headed Woodpecker was observed among the shade trees within the vicinity of the study 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. REFERENCES:

Carter, B.J. and M.S. Gregory. 2008. Earth sciences and mineral resources of Oklahoma: educational publication 9. K.S. Johnson and K.V. Luza, Ed. Oklahoma Geological Survey, University of Oklahoma.

Duck, L. G., and J. B. Fletcher. 1945. A survey of the game and furbearing animals of Oklahoma; Chapter 2, The Game Types of Oklahoma. Oklahoma Game and Fish Commission, Division of Wildlife Restoration and Research. Oklahoma City.

Woods, A.J., Omernik, J.M., Butler, D.R., Ford, J.G., Henley, J.E., Hoagland, B.W., Arndt, D.S., and Moran, B.C. 2005. Ecoregions of Oklahoma (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,250,000).

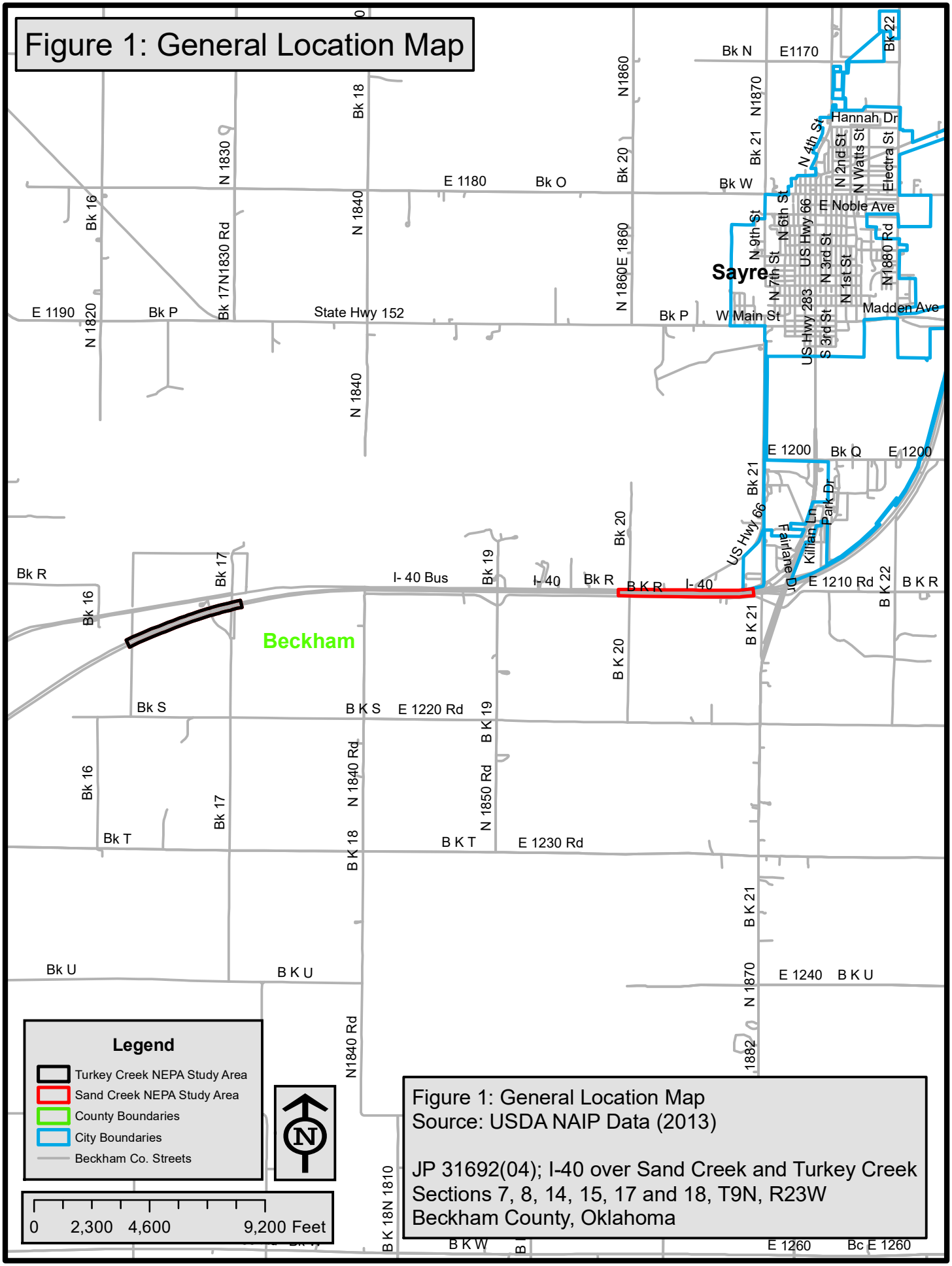


Figure 1: General Location Map
Bk N
E1170
Bk 22
N1860
N1870
Bk 21
Hannah Dr
N 4th St
N 2nd St
N Watts St
Electra St
Bk 18
Bk 20
N 1830
E 1180
Bk O
Bk W
E Noble Ave
N 6th St
US Hwy 66
N 9th St
N 3rd St
N 1880 Rd
Bk 16
N 1840
N 1860
E 1860
Sayre
N 7th St
N 1st St
N 1820
E 1190
Bk P
Bk 17
N1830 Rd
State Hwy 152
Bk P
W Main St
US Hwy 283
S 3rd St
Madden Ave
E 1200
Bk Q
E 1200
Bk 21
US Hwy 66
Killian Ln
Park Dr
Bk R
Bk 17
I- 40 Bus
Bk 19
I- 40
Bk R
B K R
I- 40
E 1210 Rd
B K R
B K 22
Bk 16
Beckham
B K 20
B K 21
Bk S
B K S
E 1220 Rd
B K 19
N 1840 Rd
N 1850 Rd
Bk T
B K T
E 1230 Rd
B K 18
B K 21
Bk U
B K U
E 1240
B K U
N 1870
1882
N1840 Rd
B K 18N 1810
B K W
E 1260
Bc E 1260
Legend
Turkey Creek NEPA Study Area
Sand Creek NEPA Study Area
County Boundaries
City Boundaries
Beckham Co. Streets
N
0
2,300
4,600
9,200 Feet
Figure 1: General Location Map
Source: USDA NAIP Data (2013)
JP 31692(04); I-40 over Sand Creek and Turkey Creek
Sections 7, 8, 14, 15, 17 and 18, T9N, R23W
Beckham County, Oklahoma

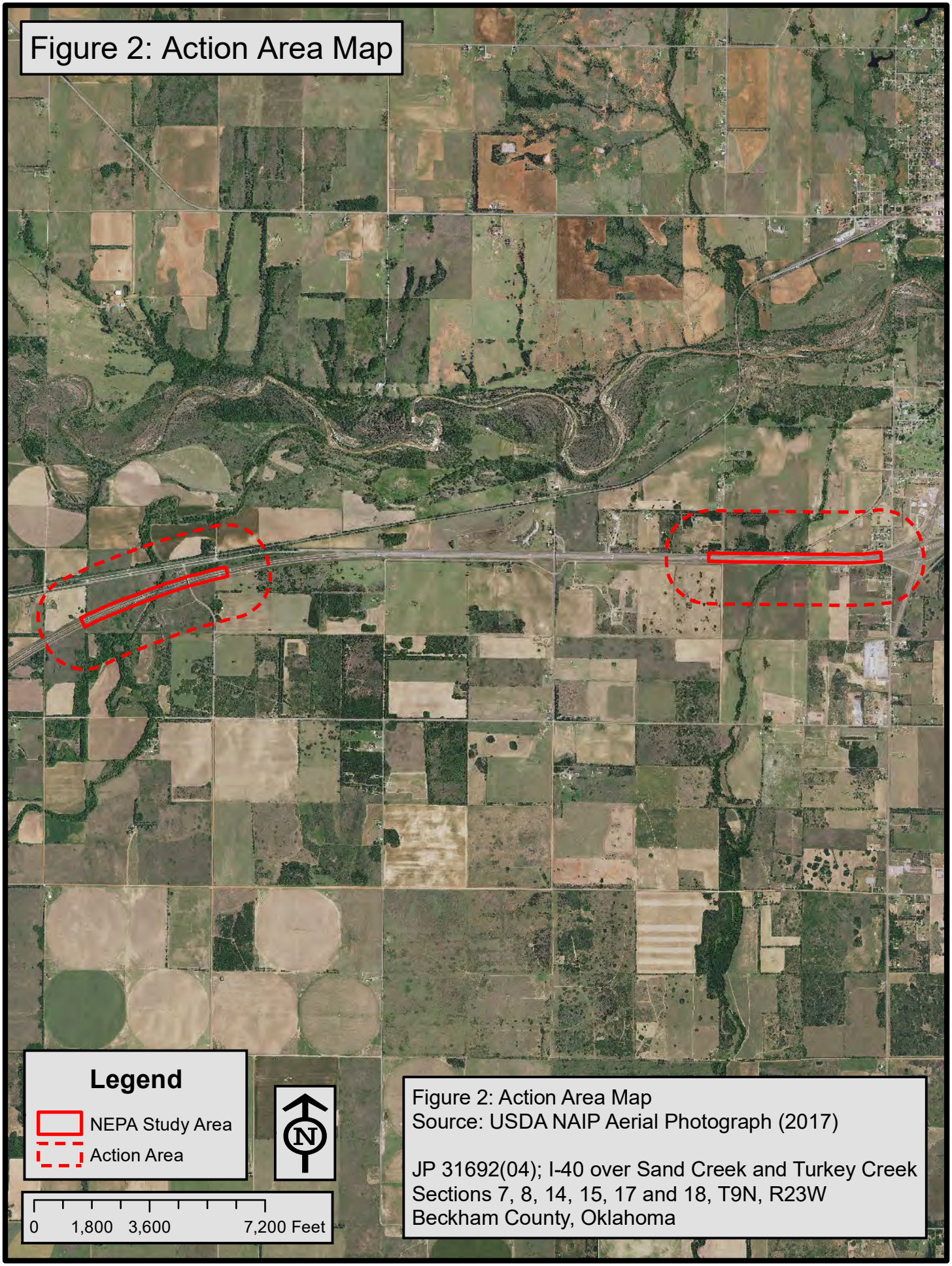


Figure 2: Action Area Map
Source: USDA NAIP Aerial Photograph (2017)

JP 31692(04); I-40 over Sand Creek and Turkey Creek
Sections 7, 8, 14, 15, 17 and 18, T9N, R23W
Beckham County, Oklahoma

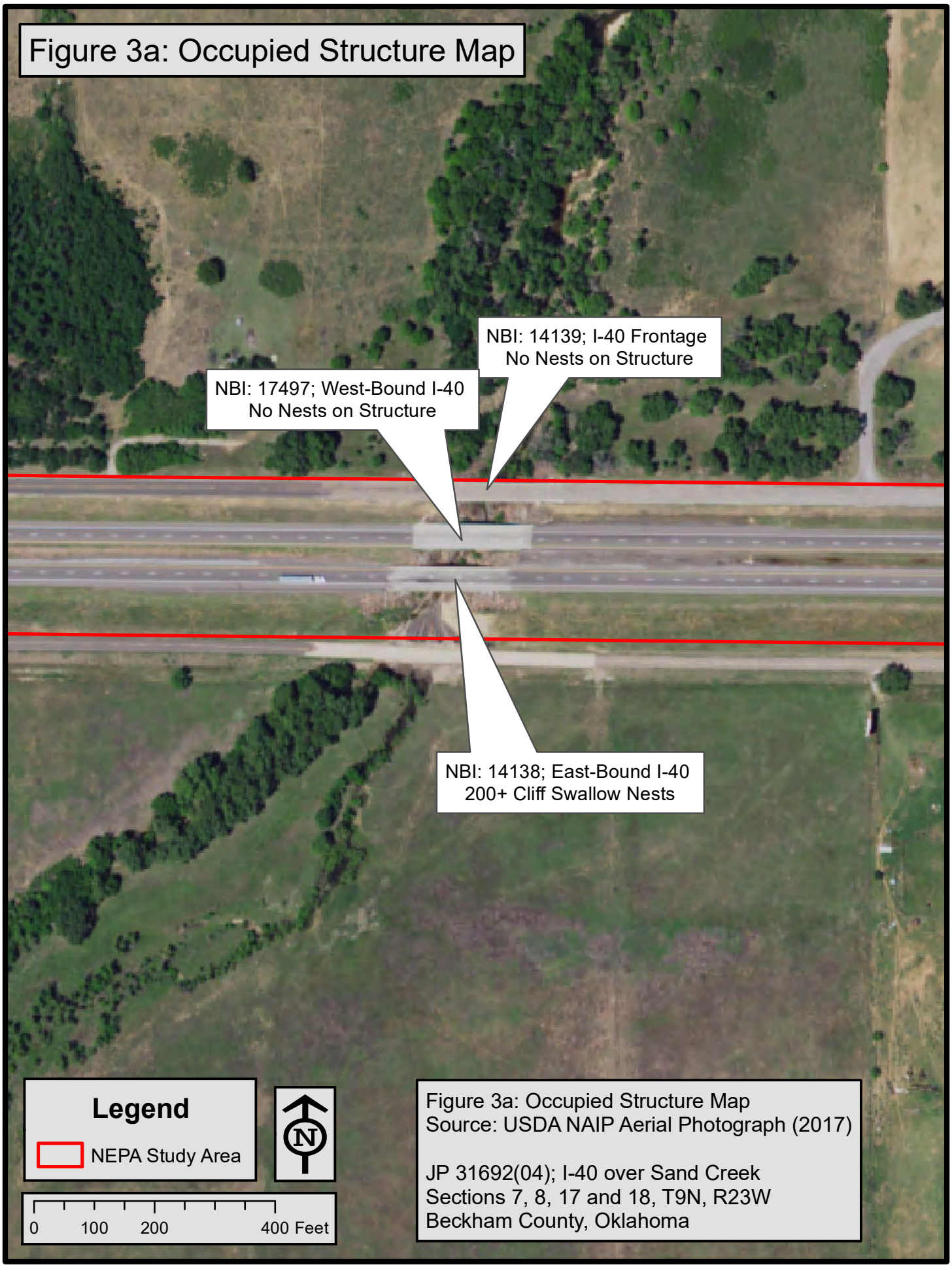


Figure 3a: Occupied Structure Map
NBI: 14139; I-40 Frontage
No Nests on Structure
NBI: 17497; West-Bound I-40
No Nests on Structure
NBI: 14138; East-Bound I-40
200+ Cliff Swallow Nests
Legend
NEPA Study Area
N
0
100
200
400 Feet
Figure 3a: Occupied Structure Map
Source: USDA NAIP Aerial Photograph (2017)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma

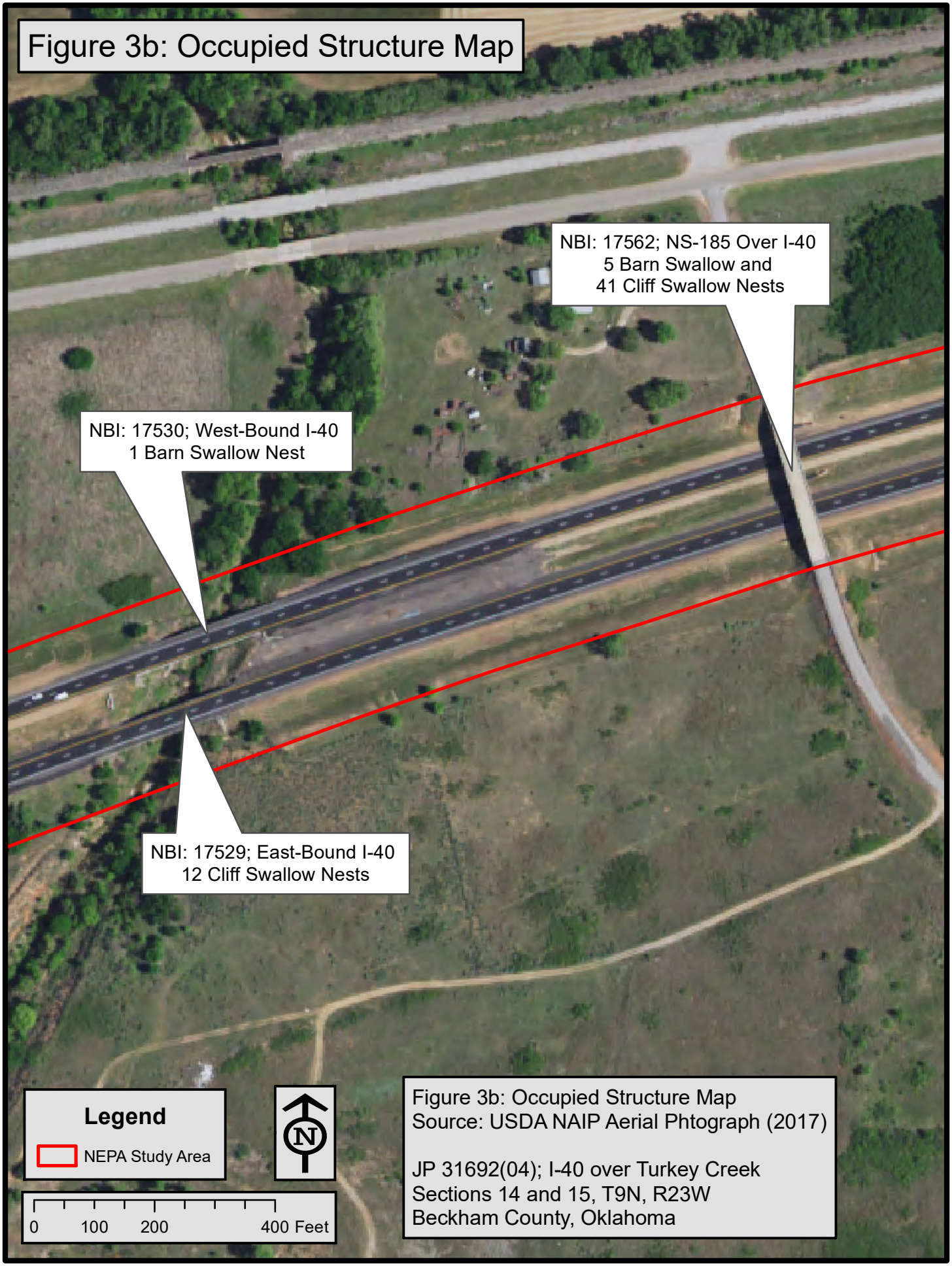


Figure 3b: Occupied Structure Map
NBI: 17562; NS-185 Over I-40
5 Barn Swallow and
41 Cliff Swallow Nests
NBI: 17530; West-Bound I-40
1 Barn Swallow Nest
NBI: 17529; East-Bound I-40
12 Cliff Swallow Nests
Legend
NEPA Study Area
N
0
100
200
400 Feet
Figure 3b: Occupied Structure Map
Source: USDA NAIP Aerial Phtograph (2017)
JP 31692(04); I-40 over Turkey Creek
Sections 14 and 15, T9N, R23W
Beckham County, Oklahoma

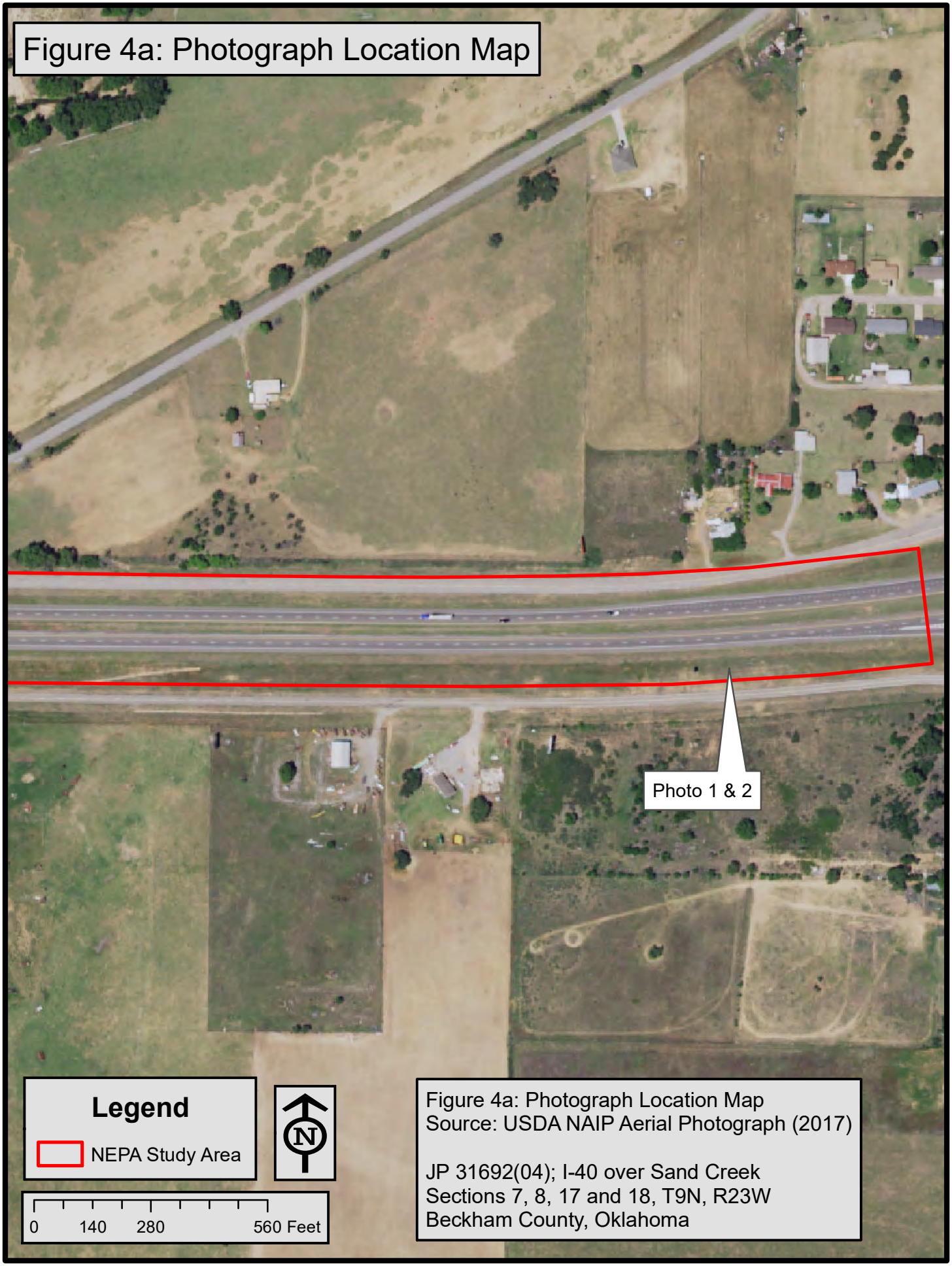


Figure 4a: Photograph Location Map
Photo 1 & 2
Legend
NEPA Study Area
N
0
140
280
560 Feet
Figure 4a: Photograph Location Map
Source: USDA NAIP Aerial Photograph (2017)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma

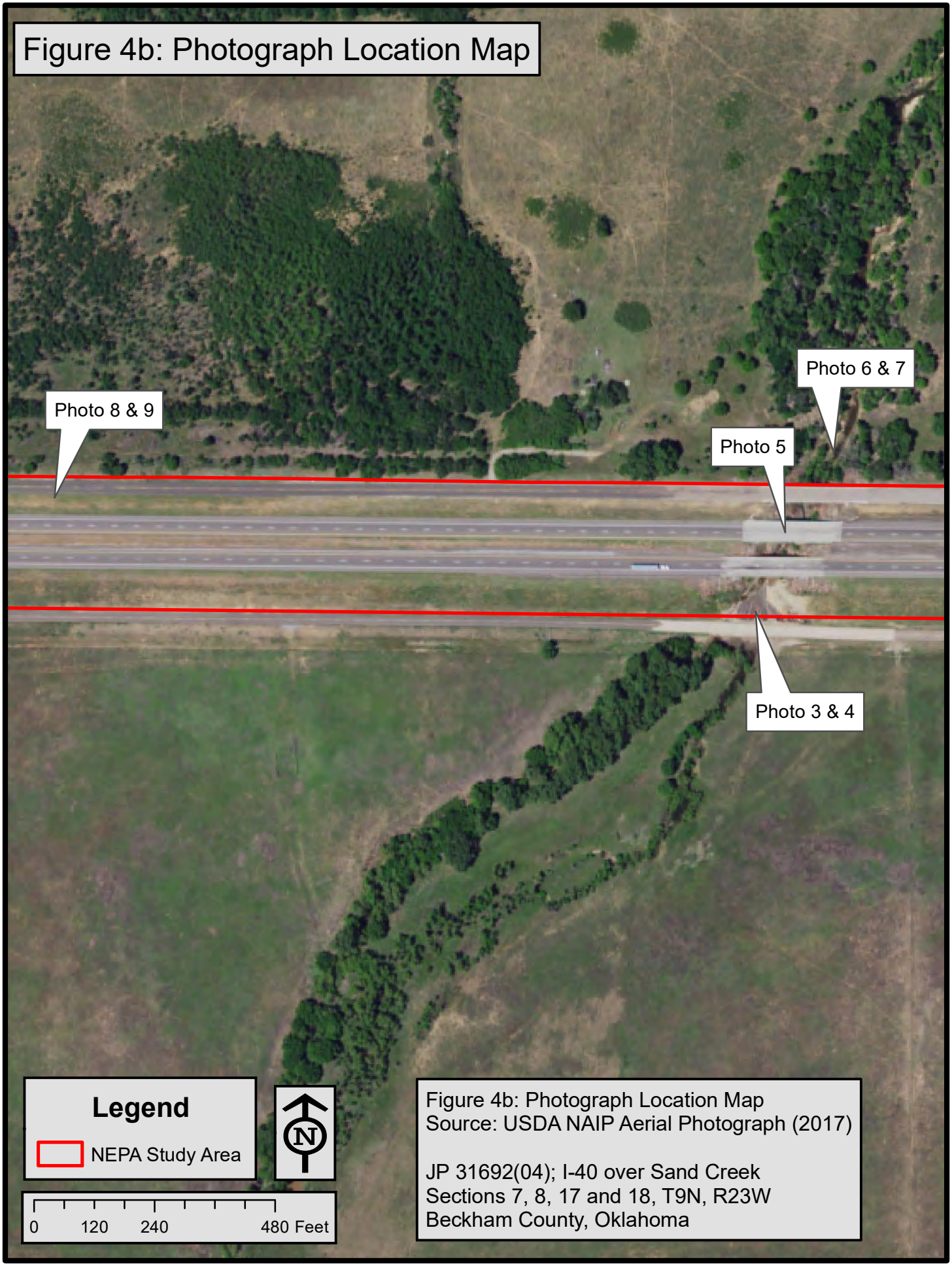


Figure 4b: Photograph Location Map
Photo 8 & 9
Photo 6 & 7
Photo 5
Photo 3 & 4
Legend
NEPA Study Area
N
0
120
240
480 Feet
Figure 4b: Photograph Location Map
Source: USDA NAIP Aerial Photograph (2017)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma

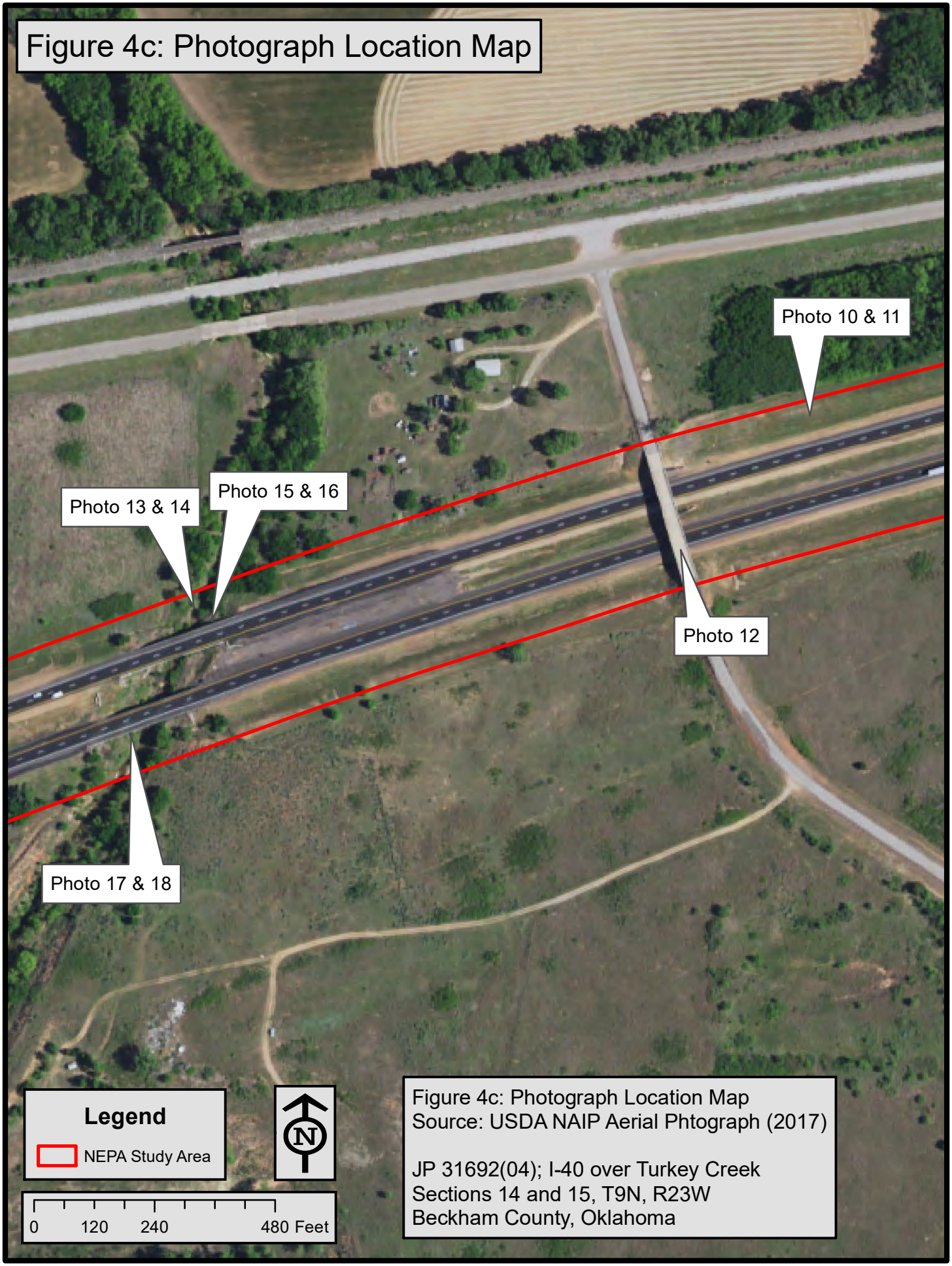


Figure 4c: Photograph Location Map
Photo 10 & 11
Photo 15 & 16
Photo 13 & 14
Photo 12
Photo 17 & 18
Legend
NEPA Study Area
N
0
120
240
480 Feet
Figure 4c: Photograph Location Map
Source: USDA NAIP Aerial Phtograph (2017)
JP 31692(04); I-40 over Turkey Creek
Sections 14 and 15, T9N, R23W
Beckham County, Oklahoma

Photograph 1: Facing east along I-40 near eastern end of Sand Creek study area.

Photograph 2: Facing west along I-40 near eastern end of Sand Creek study area.

Photograph 3: Facing south along FS-1 near southern edge of study area.

Photograph 4: Facing north along FS-1 toward east-bound I-40 bridge.

Photograph 5: Facing south within FS-1 at FS-1 Data Point location.

Photograph 6: Facing south along FS-1 toward north service road bride.

Photograph 7: Facing north along FS-1 near northern edge of study area.

Photograph 8: Facing east along I-40 near western edge of Sand Creek study area.

Photograph 9: Facing west along I-40 near western edge of Sand Creek study area.

Photograph 10: Facing east along I-40 near eastern edge of Turkey Creek study area.

Photograph 11: Facing east along I-40 near eastern edge of Turkey Creek study area.

Photograph 12: Facing south toward Cliff Swallow nesting beneath NBI: 175623.

Photograph 13: Facing north along FS-2 near northern edge of study area.

Photograph 14: Facing south along FS-2 near northern edge of study area.

Photograph 15: Facing south toward debris deposit beneath west-bound I-40 bridge over FS-2.

Photograph 16: Facing south toward debris deposit beneath west-bound I-40 bridge over FS-2.

Photograph 17: Facing north along FS-2 and across FS-3 beneath east-bound I-40 bridge.

Photograph 18: Facing south across FS-2 and FS-3 near southern edge of study area.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129-1428
Phone: (918) 581-7458 Fax: (918) 581-7467
http://www.fws.gov/southwest/es/Oklahoma/

In Reply Refer To: July 24, 2020
Consultation Code: 02EKOK00-2020-SLI-2454
Event Code: 02EKOK00-2020-E-06103
Project Name: JP 31692(04) I-40 over Sand and Turkey Creeks Beckham County

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit through our Project Review step-wise process http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129-1428
(918) 581-7458

Project Summary

Consultation Code: 02EKOK00-2020-SLI-2454

Event Code: 02EKOK00-2020-E-06103

Project Name: JP 31692(04) I-40 over Sand and Turkey Creeks Beckham County

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: Proposed Bridge Replacement Construction Projects

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/35.2580923205378N99.65880640614046W

Counties: Beckham, OK

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Least Tern *Sterna antillarum* Population: interior pop. No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Towers (i.e. radio, television, cellular, microwave, meterological) ▪ Wind Turbines and Wind Farms Species profile: https://ecos.fws.gov/ecp/species/8505	Endangered
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

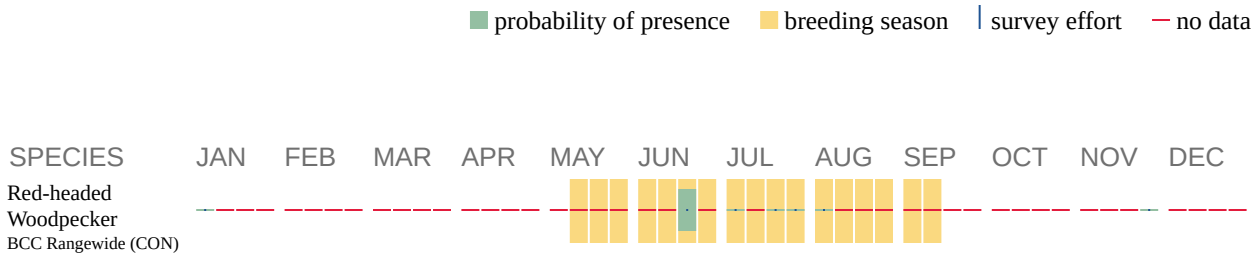
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.
Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PFO1C

FRESHWATER POND

- PUBHx

RIVERINE

- R2UBH
- R2UBHx
- R4SBC

WATERS AND WETLANDS EVALUATION REPORT

For

County	Beckham	JP Number	31692(04)	Project Number	
Road Number	Interstate 40 (I-40)	Waterbody Name		Sand Creek and Turkey Creek	
ROW Date	November 2020	Let Date	FFY 2025	Project Length	Approximately 10,180 Feet
Project General Location		I-40 located 16.2 and 19.7 miles east of the Texas State Line			
Project Statement From Oracle		Bridge and Approaches on I-40 over Sand Creek and Turkey Creek			

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

Prepared by:

Biologist Name	Clint M. Porter
Company/Agency Name	Blackbird Environmental, LLC
Address	PO Box 720100
City, State Zip	Norman, OK 73070

Report Date:	August 3, 2020
Field Date:	July 23, 2020

PROJECT OVERVIEW

Project Type (Choose one)	**Check √**
Bridge and Approaches or bridge widening/structure extension	X
Grade, Drain, Surface and Bridge	
Grade, Drain and Surface	
Asphalt Overlay Resurfacing	
Widen and Resurface existing lanes	
Pavement Reconstruction or rehabilitation	
Bridge Rehabilitation	
Safety Improvements (Cable Barrier, Guardrail, signage)	
Intersection Modifications	
Safe Routes to School (Describe)	
Enhancements (Describe)	
Other (Describe)	

Description of the **existing** bridge/roadway

The typical section included four (4) 12-foot wide paved lanes with 10-foot wide paved shoulders and a 70-foot wide divided median. Six (6) bridges were included within the study area. NBI: 17497 is west-bound I-40 [N 35.26203, W 99.65794, NAD83] (FS-1) (Sand Creek) including three (3), 50-foot I-beam spans and was constructed in 1969. NBI: 14138 is east-bound I-40 [N 35.26186, W 99.65804, NAD83] (FS-1) (Sand Creek) including three (3), 50-foot I-beam spans and was constructed in 1958. NBI: 14139 is north I-40 frontage road [N 35.26226, W 99.65784, NAD83] (FS-1) (Sand Creek) including three (3), 50-foot I-beam spans and was constructed in 1958. NBI: 17530 is west-bound I-40 [N 35.25884, W 99.72371, NAD83] (FS-2) (Turkey Creek) including three (3) (56-foot, 70-foot, 56-foot) continuous plate girder spans and was constructed in 1969. NBI: 17529 is east-bound I-40 [N 35.25847, W 99.72391, NAD83] (FS-2) (Turkey Creek) including three (3) (56-foot, 70-foot, 56-foot) continuous plate girder spans and was constructed in 1969. NBI: 17562 is County Road North/South 185 (NS-185) over I-40 [N 35.25961, W 99.72043, NAD83] including four (4) (33-foot, 95-foot, 95-foot, 33-foot) plate girder spans and was constructed in 1969. The present traffic ADT (vehicles per day) was estimated at 5,950. The future ADT (20-year projection) was not provided. The proposed action will replace three (3) bridges (NBI: 14138, NBI: 17529 and NBI: 17530) that are at risk of being structurally deficient and improve traffic safety.

Description of **proposed** improvements **SPECIFIC TO THIS PROJECT**

The proposed action includes activities associated with a bridge and approaches construction project. The road will remain open and detoured on crossovers. NBI: 17529 and NBI: 17530 (Turkey Creek) will be replaced with three (3) span (65-foot, 80-foot, 65-foot) type III PC beam bridges. NBI: 14138 (Sand Creek) will be replaced with a three (3) span (65-foot, 65-foot, 65-foot) type III PC beam bridge. Rip rap will be added to the embankments. The new typical section will include four (4), 12-foot wide, paved lanes with 10-foot wide, paved shoulders and a 70-foot wide divided median.

Project Environmental Study Footprint

Project Location		**Environmental Study Footprint**	
Section Range & Township	Lat/Long (NAD 83)	Dimensions	Acreage
Sections 7, 8, 14, 15, 17, 18, T9N, R23W	west end: N 35.25601, W 99.73142; east end: N 35.26214, W 99.64799	The study area varied between 280 and 310 feet wide and included approximately 10,180 feet of Interstate 40 (I-40).	65.83 Acres

Environmental Study Footprint Soils (NRCS Soil Survey Map) (NRCS, 2020a)

Map Unit Name	**Percent Slope**	**Drainage Class**	**Hydric Rating**		**Description (NRCS, 2020b)**
			YES	**NO**	
Cyril fine sandy loam, occasionally flooded (14)	0 to 1	Well Drained	**X**		The Cyril series consists of very deep, well drained, moderately permeable soils formed in calcareous loamy alluvium from streams that drain Permian and Pleistocene age sediments.
Delwin-Nobscot complex (15)	0 to 3	Well Drained	**X**		The Delwin series consists of very deep, well drained, moderately permeable soils formed in eolian sands over loamy ancient alluvium. The Nobscot series consists of very deep, well drained, moderately rapidly permeable soils that formed in wind-modified loamy and sandy sediments of Pleistocene age.
Devol loamy sand (16)	0 to 3	Well Drained	**X**		The Devol series consists of very deep, well drained, moderately rapidly permeable soils that formed in loamy and sandy eolian sediments of Pleistocene age.
Devol loamy sand (17)	3 to 8	Well Drained	**X**		

Map Unit Name	Percent Slope	Drainage Class	Hydric Rating		Description (NRCS, 2020b)
			YES	NO	
Nobscot sand (36)	0 to 5	Well Drained	**X**		The Nobscot series consists of very deep, well drained, moderately rapidly permeable soils that formed in wind-modified loamy and sandy sediments of Pleistocene age.
Nobscot sand (37)	5 to 20	Well Drained	**X**		
Spur loam, moist, occasionally flooded (50)	0 to 1	Well Drained	**X**		The Spur series consists of very deep, well drained, moderately permeable soils that formed in calcareous, loamy alluvium.
Westola fine sandy loam, occasionally flooded (66)	0 to 1	Well Drained	**X**		The Westola series consists of very deep, well drained, moderately rapidly permeable soils that formed in calcareous, recent alluvium.

Environmental Study Footprint General Description and Vegetation Present

The study area was located within the Pleistocene Sand Dunes of the Central Great Plains ecoregion.

The localized general vicinity of the study area included agricultural land and single-family residences. The study area exhibited characteristics of the tall grass prairie game type (Duck and Fletcher, 1945).

The study area was dominated by one (1) general habitat type - mixed grass field. Common grass species within the mixed grass field included bermuda (*Cynodon dactylon*), little bluestem (*Schizachyrium scoparium*), Johnson grass (*Sorghum halepense*), silver bluestem (*Bothriochloa saccharoides*), brome grasses (*Bromus* spp.) and buffalo grass (*Bouteloua dactyloides*). Annual ragweed (*Ambrosia artemisiifolia*) and nightshade (*Solanum* spp.) were also common within these areas.

Riparian forest was observed immediately north and south of the study area and included elm (*Ulmus* spp.), hackberry (*Celtis* spp.), black willow (*Salix nigra*), eastern cottonwood (*Populus deltoides*), western soapberry (*Sapindus saponaria*) and Osage orange (*Maclura pomifera*). Other common species along the open edges and understory included green briar (*Smilax* spp.), poison ivy (*Toxicodendron radicans*), coral berry (*Symphoricarpos orbiculatus*), bristle grass (*Setaria* sp.) and panic grasses (*Panicum* spp.).

According to review of the United States Geological Survey (USGS) 7.5-Minute Topographic Map, elevations within the study area varied between 1,830 and 1,890 feet. Sand Creek (intermittent stream) and Turkey Creek (perennial stream) were mapped within the study area (Figure 2a and Figure 2b). Sand Creek and Turkey Creek are tributaries to North Fork to Red River. North Fork to Red River is a tributary to Red River; therefore, part of the Red River drainage basin.

Eight (8) soils were mapped by the Natural Resource Conservation Service (NRCS) within the study area (NRCS, 2020a) (Figure 3a and Figure 3b). All soils were mapped by the NRCS as hydric soil within the study area (NRCS, 2020a and NRCS, 2020c).

According to review of the USFWS National Wetland Inventory (NWI) map, one (1) riverine, intermittent, stream bed, seasonally flooded (R4SBC), one (1) riverine, lower perennial, unconsolidated bottom, permanently flooded, excavated (R2UBHx) and one (1) palustrine, forested, broad-leaved deciduous, temporarily flooded (PFO1A) features were mapped within the study area (Figure 4a and Figure 4b).

WATERS AND WETLANDS EVALUATION

Data Sources Reviewed (list)

USGS 7.5 minute Quad	NWI Map	USACE Wetland Regional Supplement	Additional Resources Reviewed
Sayre, OK (1989)	Sayre, OK (1983)	Great Plains	Additional resources cited within the text and listed within the Literature Cited.

Wetlands and Ponds Summary Table

Number of Field Sites	Type of Wetland or Pond	Cowardin Classification	Potential Jurisdictional Status	Acres within Study Area
FS-3	Emergent Wetland	Palustrine, Emergent, Persistent	Likely Jurisdictional	0.073

Streams and Drainages Summary Table

Number of Field Sites	Stream Name[A]	USGS Mapped Status[A]	Potential Jurisdictional Status	Acres within Environmental Study Footprint	Linear Feet within Environmental Study Footprint
FS-1	Sand Creek	Intermittent	Likely Jurisdictional	50 wide at 3 deep (0.320 Acre)*	295 Linear Feet
FS-2	Turkey Creek	Perennial	Likely Jurisdictional	25 wide at 5 deep (0.181 Acre)*	430 Linear Feet

[A] Waterbody Name and Map Status refer to the USGS 7.5-Minute Topographic Map.
* Surface area calculated from data collected with Trimble GEOXH.

Streams and Other Linear Aquatic Features

Blackbird characterized the lotic waterbodies within the study area as riverine, intermittent, stream bed (R4SB) and riverine, lower perennial, unconsolidated bottom (R2UB) (Cowardin *et al.*, 1979). The locations of the lotic waterbodies are identified on Figure 5a through Figure 5d and described within the above table. Photographs of the delineated waterbodies are provided.

Sand Creek (FS-1) was dominated by silt, clay and sand substrates with a mature, forested riparian corridor north and south of the study area. Small, isolated pools of water were observed within the stream channel and supported *Gambusia affinis*. The stream embeddedness was difficult to estimate due to recent construction immediately south of east-bound I-40 (NBI: 14138). Sediment accumulation was observed within the channel around the recent construction. The sediment accumulation was likely associated with recently disturbed soils. Limited wetland vegetation was growing within the channel. The stream was associated with NBI: 14138, NBI: 14139 and NBI: 17497.

Turkey Creek (FS-2) was dominated by silt, clay and sand substrates with a mature, forested riparian corridor north and south of the study area. Shallow flowing water was observed within the stream channel and supported *Gambusia affinis* and *Lepomis* sp. in pool and run habitat. The stream embeddedness was difficult to estimate in the absence of large cobble and/or boulder. However, no significant sediment accumulation (islands and/or point bars) was observed within the channel. *Lemna minor* was identified along the slow moving edges of the stream. The stream was associated with NBI: 17529 and NBI: 17530.

According to review of the USGS Topographic Map, FS-1 and FS-2 were directly connected to a jurisdictional waterbody. Therefore, these features are likely jurisdictional. The placement and/or redistribution of fill material into the lotic waterbodies will likely require a Clean Water Act, Section 404 Permit.

Wetlands and Other Lentic Waterbodies

One (1) site within the study area exhibited hydric soils, hydrophytic vegetation and indicators of hydrology. Therefore, wetland was delineated within the study area. Blackbird characterized the wetland within the study area as palustrine, emergent, persistent (PEM1) (Cowardin *et al.*, 1979). The location of the emergent wetland is identified on Figure 5c and described within the above table. Photographs of the delineated waterbodies are provided. No lentic waterbodies were delineated within the study area.

Emergent wetland (FS-3) was delineated beneath the east-bound I-40 bridge over Turkey Creek and along Turkey Creek (FS-2) south of the structure. The emergent wetland was dominated by barnyard grass and developed on low slopes along the flowing water. According to review of the USGS Topographic Map, FS-3 was directly connected to a jurisdictional waterbody. Therefore, the wetland is likely jurisdictional. The placement and/or redistribution of fill material into the feature will likely require a Clean Water Act, Section 404 Permit.

LITERATURE CITED

Cowardin, L.M., V. Carter, F.C. Colet, E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page. http://www.npwrc.usgs.gov/resource/1998/classwet/classwet.htm (Version 04DEC98).

Duck, L. G., and J. B. Fletcher. 1945. A survey of the game and furbearing animals of Oklahoma; Chapter 2, The Game Types of Oklahoma. Oklahoma Game and Fish Commission, Division of Wildlife Restoration and Research. Oklahoma City.

NRCS. July 24, 2020a. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/.

NRCS. July 24, 2020b. Soil Series Name Search Query Facility. https://soilseries.sc.egov.usda.gov/osdnamequery.asp.

NRCS. July 24, 2020c. National hydric soils list by state. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316619.html

USACE. 1987. Corps of Engineers, Wetland Delineation Manual. Wetlands Research Program Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS. 100pp.

USACE. March 2010. Regional supplement to the Corps of Engineers Wetland Delineation Manual: great plains region (version 2.0), ed. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08012. Vicksburg, MS. U.S. Army Engineer Research and Development Center.

Woods, A.J., Omernik, J.M., Butler, D.R., Ford, J.G., Henley, J.E., Hoagland, B.W., Arndt, D.S., and Moran, B.C. 2005. Ecoregions of Oklahoma (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,250,000).

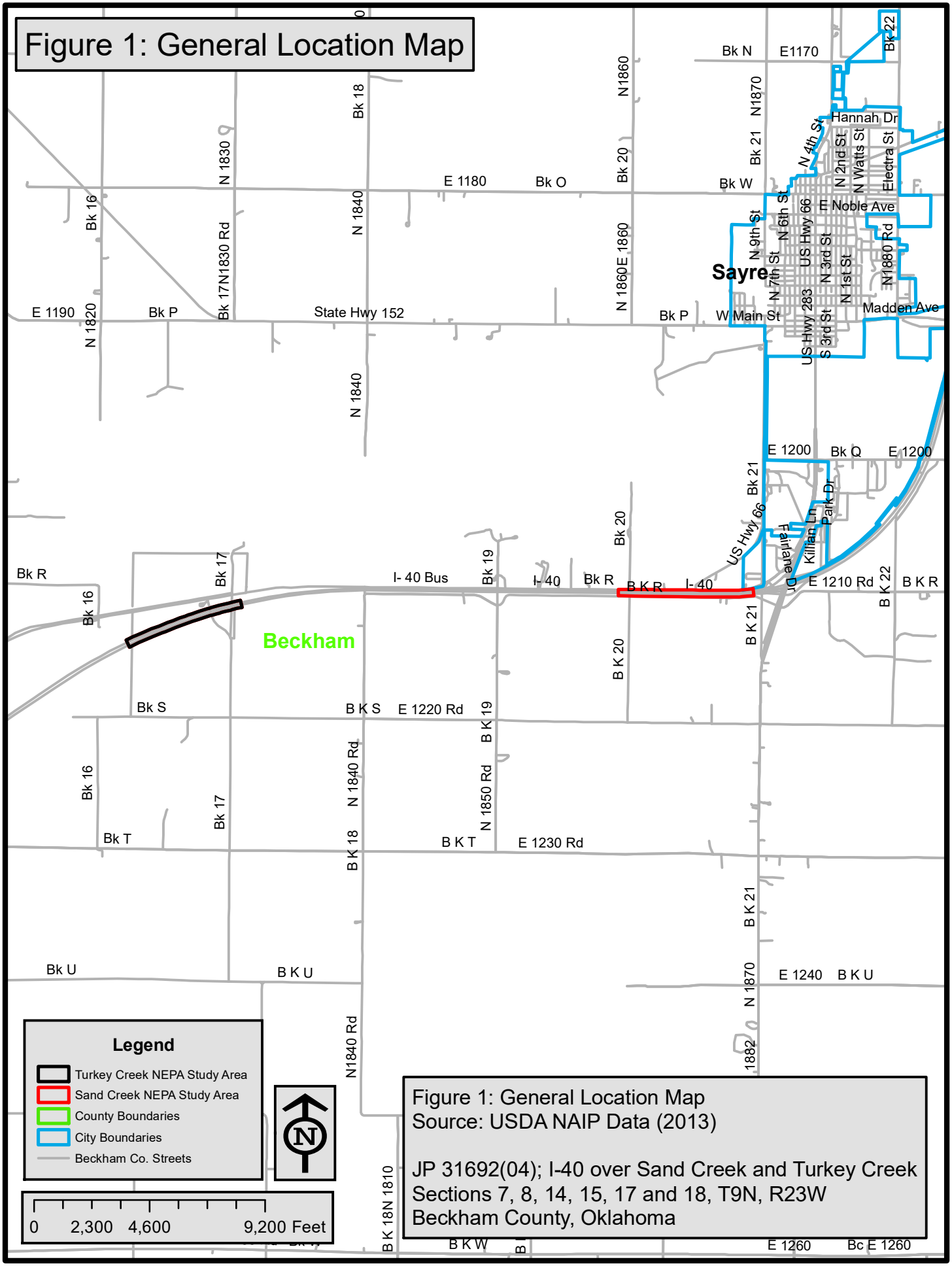


Figure 1: General Location Map
Bk N
E1170
Bk 22
N1860
N1870
Bk 21
Hannah Dr
N 4th St
N 2nd St
N Watts St
Electra St
Bk 18
Bk 20
N 1830
E 1180
Bk O
Bk W
E Noble Ave
N 6th St
US Hwy 66
N 9th St
N 3rd St
N 1880 Rd
Bk 16
N 1840
N 1860
E 1860
Sayre
N 7th St
N 1st St
N 1820
E 1190
Bk P
Bk 17
N1830 Rd
State Hwy 152
Bk P
W Main St
US Hwy 283
S 3rd St
Madden Ave
E 1200
Bk Q
E 1200
Bk 21
US Hwy 66
Killian Ln
Park Dr
Bk R
Bk 17
I- 40 Bus
Bk 19
I- 40
Bk R
B K R
I- 40
E 1210 Rd
B K R
B K 22
Bk 16
Beckham
B K 20
B K 21
Bk S
B K S
E 1220 Rd
B K 19
N 1840 Rd
N 1850 Rd
Bk T
B K T
E 1230 Rd
B K 18
B K 21
Bk U
B K U
E 1240
B K U
N 1870
1882
N1840 Rd
B K 18N 1810
B K W
E 1260
Bc E 1260
Legend
Turkey Creek NEPA Study Area
Sand Creek NEPA Study Area
County Boundaries
City Boundaries
Beckham Co. Streets
N
0
2,300
4,600
9,200 Feet
Figure 1: General Location Map
Source: USDA NAIP Data (2013)
JP 31692(04); I-40 over Sand Creek and Turkey Creek
Sections 7, 8, 14, 15, 17 and 18, T9N, R23W
Beckham County, Oklahoma

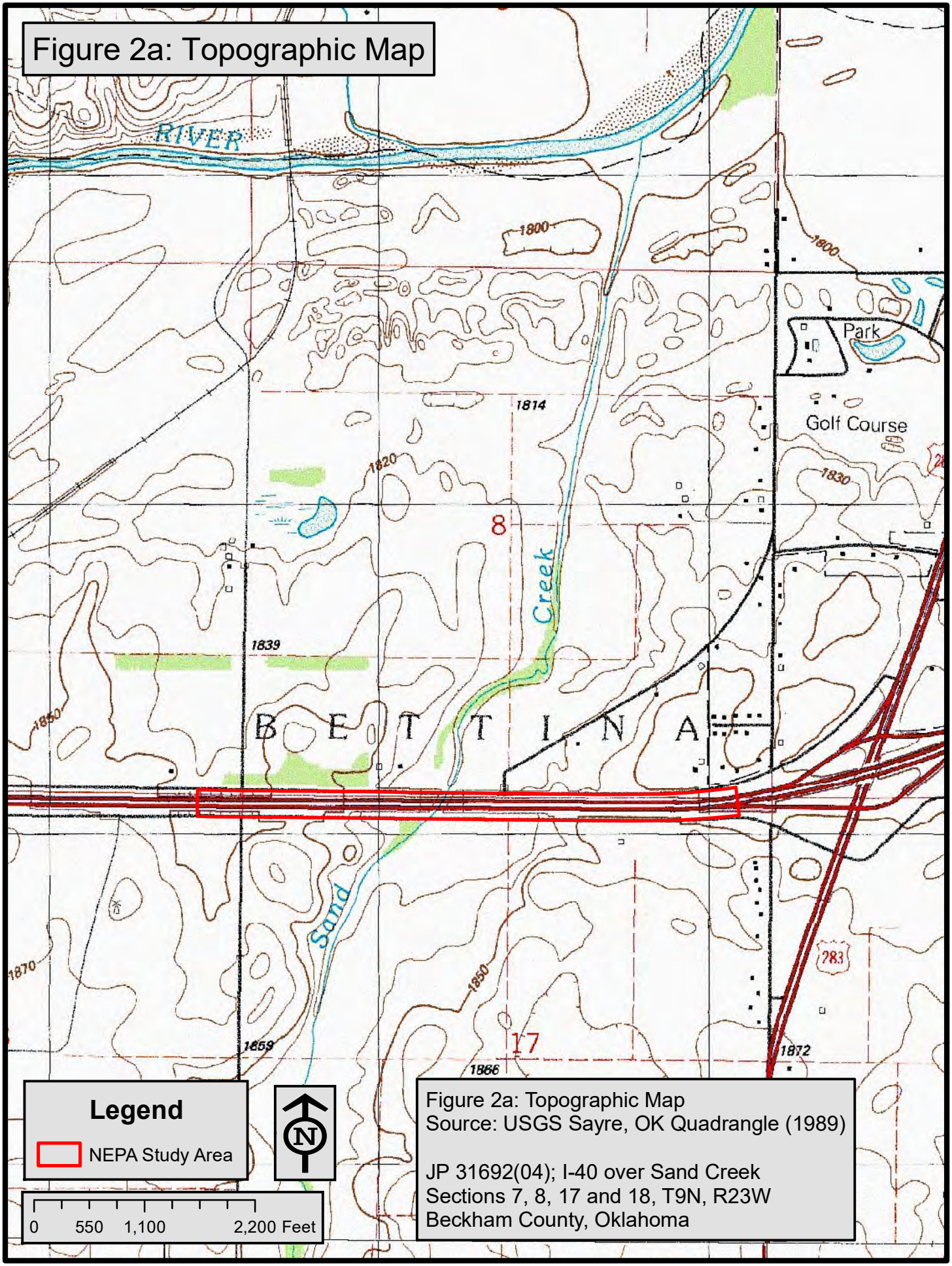


Figure 2a: Topographic Map
RIVER
1800
1800
Park
Golf Course
1814
1820
1830
8
Creek
1839
1850
B E T T I N A
Sand
1870
1850
283
1859
17
1872
1866
Legend
NEPA Study Area
N
0 550 1,100 2,200 Feet
Figure 2a: Topographic Map
Source: USGS Sayre, OK Quadrangle (1989)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma

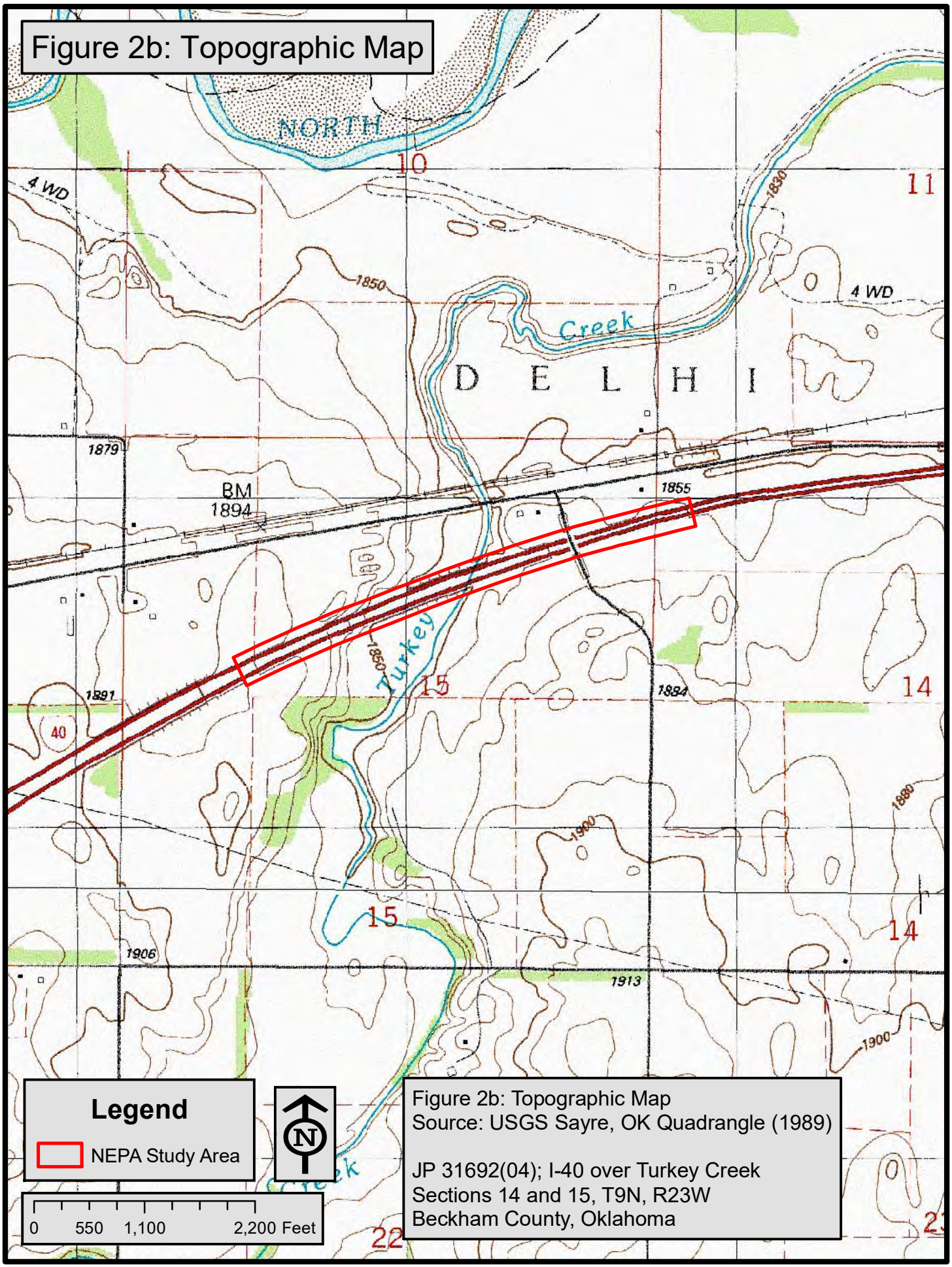


Figure 2b: Topographic Map
Source: USGS Sayre, OK Quadrangle (1989)

JP 31692(04); I-40 over Turkey Creek
Sections 14 and 15, T9N, R23W
Beckham County, Oklahoma

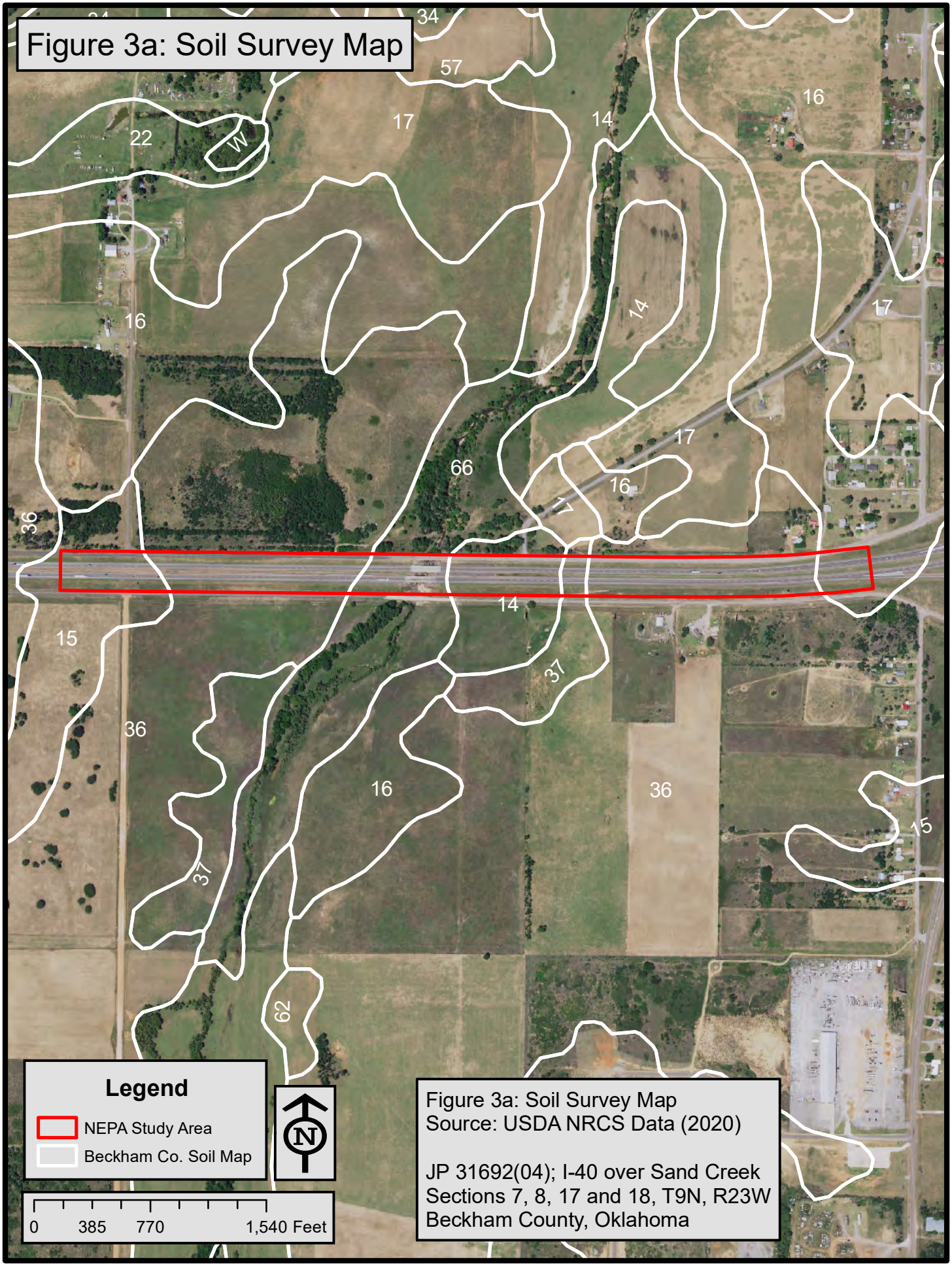


Figure 3a: Soil Survey Map
34
57
17
14
16
22
W
16
14
17
17
66
16
17
36
14
15
37
36
16
36
15
37
62
Legend
NEPA Study Area
Beckham Co. Soil Map
N
0
385
770
1,540 Feet
Figure 3a: Soil Survey Map
Source: USDA NRCS Data (2020)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma

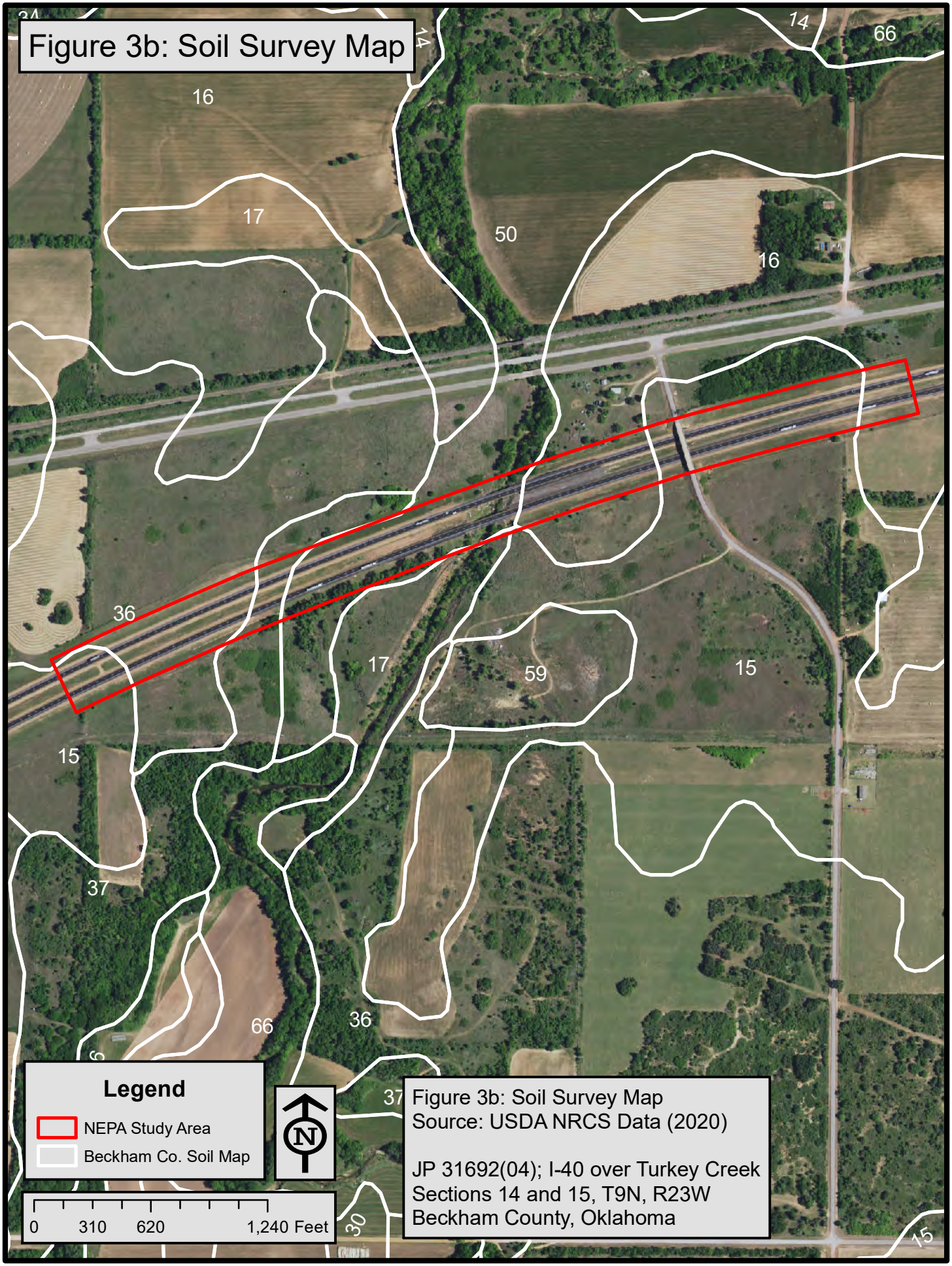


Figure 3b: Soil Survey Map
16
17
50
16
14
66
36
17
59
15
15
37
66
36
37
30
15
Legend
NEPA Study Area
Beckham Co. Soil Map
N
0
310
620
1,240 Feet
Figure 3b: Soil Survey Map
Source: USDA NRCS Data (2020)
JP 31692(04); I-40 over Turkey Creek
Sections 14 and 15, T9N, R23W
Beckham County, Oklahoma

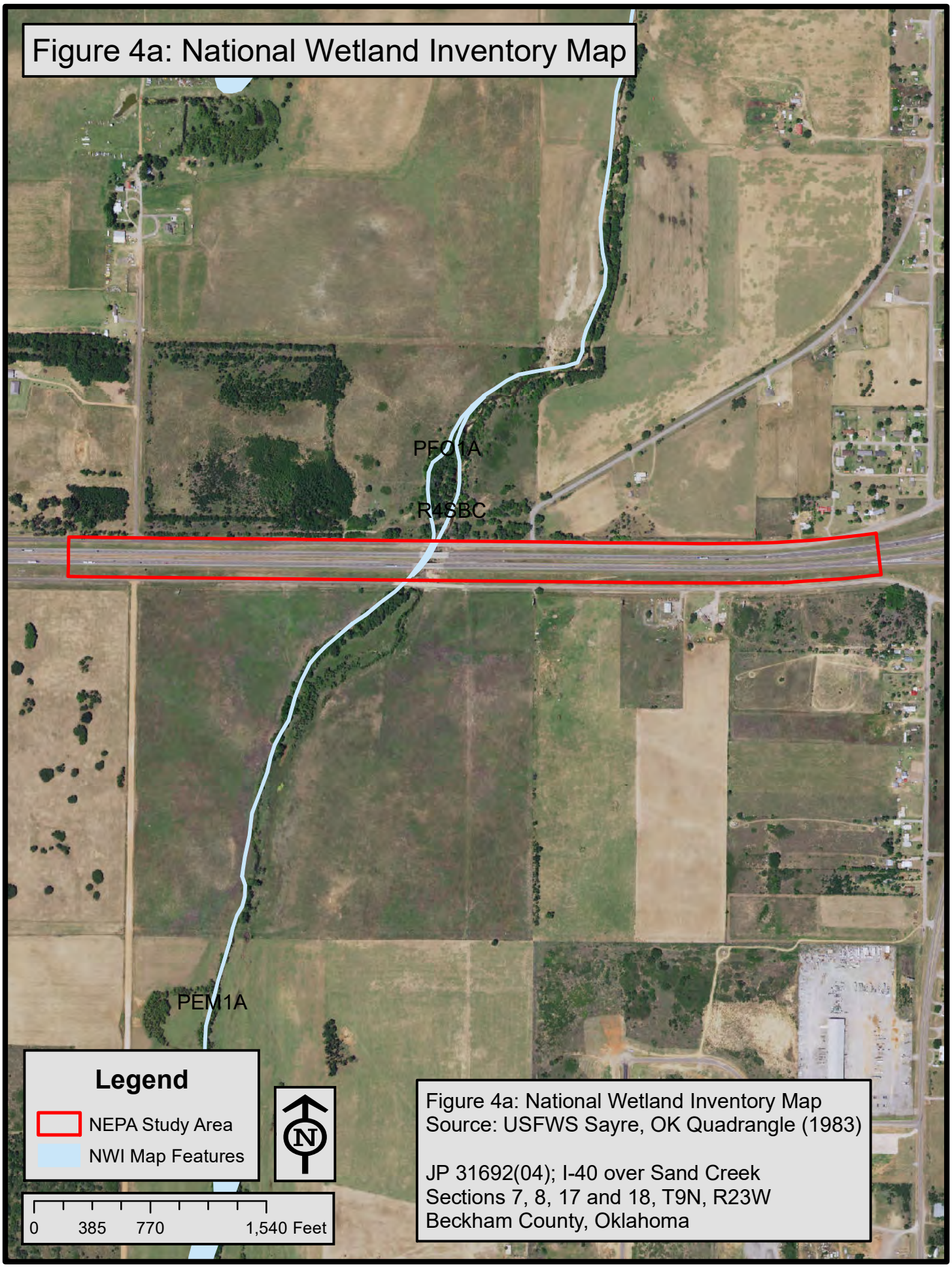


Figure 4a: National Wetland Inventory Map
PFO1A
R4SBC
PEM1A
Legend
NEPA Study Area
NWI Map Features
N
0
385
770
1,540 Feet
Figure 4a: National Wetland Inventory Map
Source: USFWS Sayre, OK Quadrangle (1983)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma

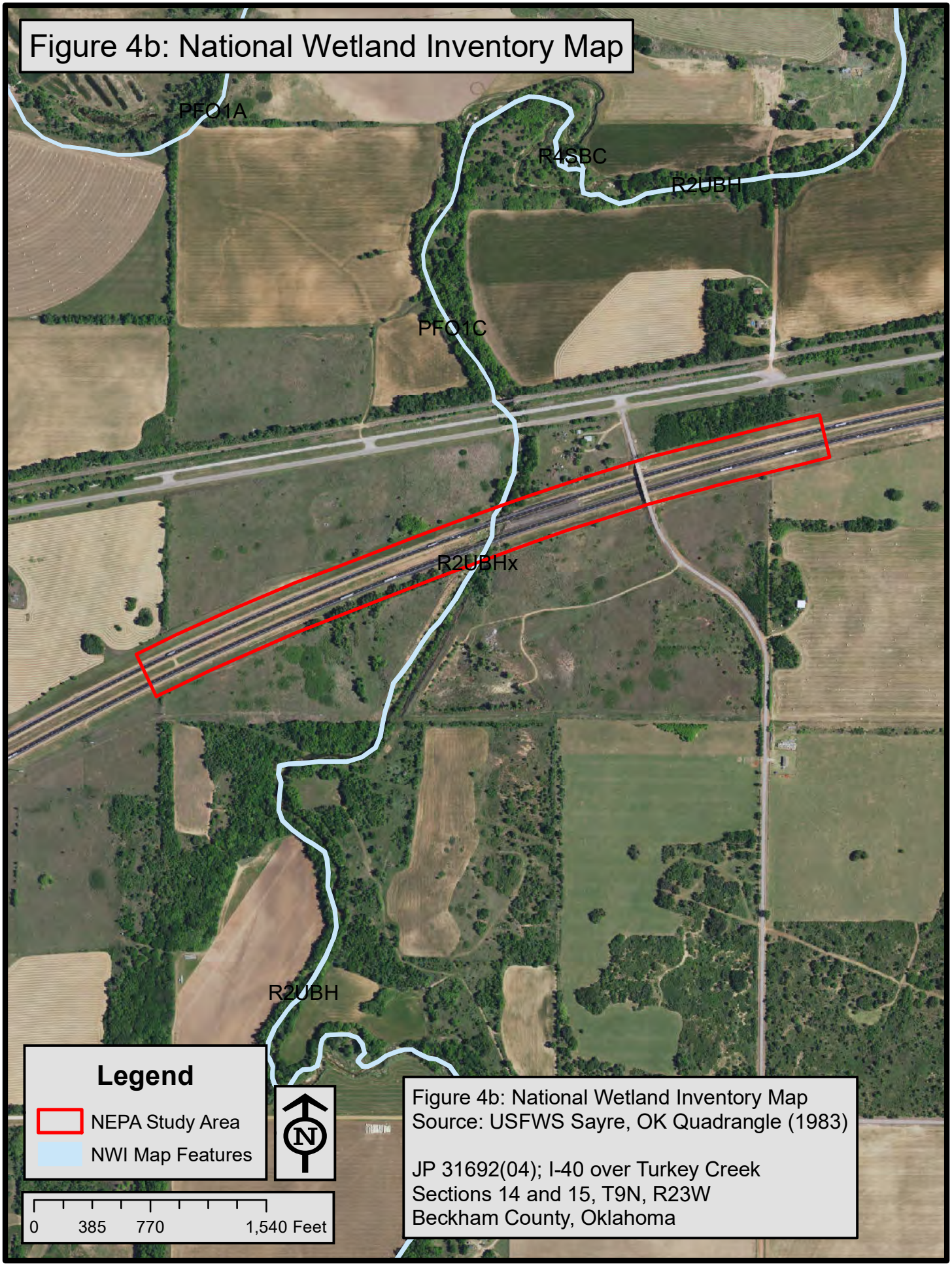


Figure 4b: National Wetland Inventory Map
PFO1A
R4SBC
R2UBH
PFO1C
R2UBHx
R2UBH
Legend
NEPA Study Area
NWI Map Features
N
0
385
770
1,540 Feet
Figure 4b: National Wetland Inventory Map
Source: USFWS Sayre, OK Quadrangle (1983)
JP 31692(04); I-40 over Turkey Creek
Sections 14 and 15, T9N, R23W
Beckham County, Oklahoma


Figure 5a: Delineation Site Map
Legend
NEPA Study Area
N
0
200
400
800 Feet
Figure 5a: Delineation Site Map
Source: USDA NAIP Aerial Photograph (2017)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma

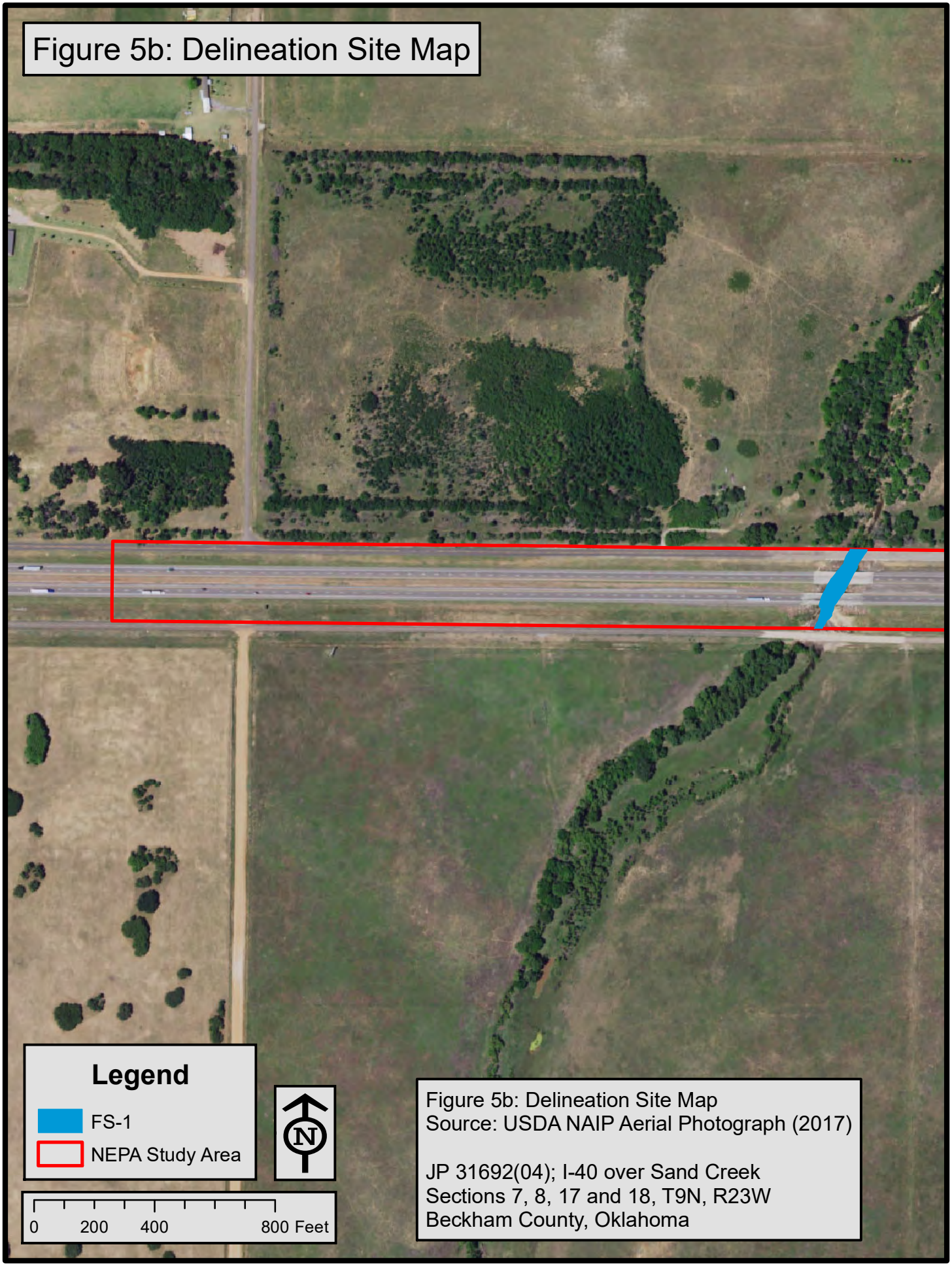


Figure 5b: Delineation Site Map
Legend
FS-1
NEPA Study Area
N
0
200
400
800 Feet
Figure 5b: Delineation Site Map
Source: USDA NAIP Aerial Photograph (2017)
JP 31692(04); I-40 over Sand Creek
Sections 7, 8, 17 and 18, T9N, R23W
Beckham County, Oklahoma


Figure 5c: Delineation Site Map
Legend
FS-2
FS-3
NEPA Study Area
N
0
160
320
640 Feet
Figure 5c: Delineation Site Map
Source: USDA NAIP Aerial Phtograph (2017)
JP 31692(04); I-40 over Turkey Creek
Sections 14 and 15, T9N, R23W
Beckham County, Oklahoma


Figure 5d: Delineation Site Map
Legend
NEPA Study Area
N
0
160
320
640 Feet
Figure 5d: Delineation Site Map
Source: USDA NAIP Aerial Phtograph (2017)
JP 31692(04); I-40 over Turkey Creek
Sections 14 and 15, T9N, R23W
Beckham County, Oklahoma

Photograph 1: Facing east along I-40 near eastern end of Sand Creek study area.

Photograph 2: Facing west along I-40 near eastern end of Sand Creek study area.

Photograph 3: Facing south along FS-1 near southern edge of study area.

Photograph 4: Facing north along FS-1 toward east-bound I-40 bridge.

Photograph 5: Facing south within FS-1 at FS-1 Data Point location.

Photograph 6: Facing south along FS-1 toward north service road bride.

Photograph 7: Facing north along FS-1 near northern edge of study area.

Photograph 8: Facing east along I-40 near western edge of Sand Creek study area.

Photograph 9: Facing west along I-40 near western edge of Sand Creek study area.

Photograph 10: Facing east along I-40 near eastern edge of Turkey Creek study area.

Photograph 11: Facing east along I-40 near eastern edge of Turkey Creek study area.

Photograph 12: Facing south toward Cliff Swallow nesting beneath NBI: 175623.

Photograph 13: Facing north along FS-2 near northern edge of study area.

Photograph 14: Facing south along FS-2 near northern edge of study area.

Photograph 15: Facing south toward debris deposit beneath west-bound I-40 bridge over FS-2.

Photograph 16: Facing south toward debris deposit beneath west-bound I-40 bridge over FS-2.

Photograph 17: Facing north along FS-2 and across FS-3 beneath east-bound I-40 bridge.

Photograph 18: Facing south across FS-2 and FS-3 near southern edge of study area.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: JP 31692(04); I-40 over Turkey Creek City/County: Beckham County Sampling Date: 7-23-20

Applicant/Owner: Oklahoma Department of Transportation State: OK Sampling Point: FS-1

Investigator(s): Clint M. Porter Section, Township, Range: Section 8, T9N, R23W

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0 to 2

Subregion (LRR): LRR H Lat: 35.261989 Long: -99.657914 Datum: NAD 83

Soil Map Unit Name: Westola fine sandy loam, 0 to 1 percent slopes, occasionally flooded (66) NWI classification: Mapped as R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil Yes, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Data point collected within a mapped intermittent stream.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. None			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 3 square feet)			
1.			
2. black willow (Salix nigra)	40	yes	FACW
3. eastern cottonwood (Populus deltoides)	40	yes	FAC
4. rush (Juncus sp.)	5	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. None			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species 45	x 2 =	90
FAC species 40	x 3 =	120
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: 85 (A)		210 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

- ✓ 1 - Rapid Test for Hydrophytic Vegetation
- ✓ 2 - Dominance Test is >50%
- ✓ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: FS-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 to 18	10 YR 6/3						sand	
	18" bottom of pit							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No redox features observed within the top 18 inches of the soil matrix. Deposited sand from stream flow.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✓ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ✓ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Data point collected within a mapped intermittent stream.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: JP 31692(04); I-40 over Turkey Creek City/County: Beckham County Sampling Date: 7-23-20

Applicant/Owner: Oklahoma Department of Transportation State: OK Sampling Point: FS-3

Investigator(s): Clint M. Porter Section, Township, Range: Section 15, T9N, R23W

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0 to 2

Subregion (LRR): LRR H Lat: 35.25859 Long: -99.72384 Datum: NAD 83

Soil Map Unit Name: Spur loam, moist, 0 to 1 percent slopes, occasionally flooded (50) NWI classification: Mapped as R2UBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil Yes, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Data point collected within a mapped perennial stream.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. None			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 3 square feet)			
1.			
2. barnyard grass (Echinochloa crus-galli)	70	yes	FAC
3. rabbitsfoot grass (Polypogon monspeliensis)	5	no	FACW
4. cocklebur (Xanthium strumarium)	5	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. None			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 5	x 2 = 10
FAC species 75	x 3 = 225
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 80 (A)	235 (B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

- ✓ 1 - Rapid Test for Hydrophytic Vegetation
- ✓ 2 - Dominance Test is >50%
- ✓ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: FS-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 to 4	10 YR 2/1		10 YR 5/8	5	C	M/PL	sandy silt loam	
4 to 18	10 YR 6/3						sand	
	18" bottom of pit							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

Five (5) percent redox features observed within the top four (4) inches of the soil matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✓ Drift Deposits (B3)
- ✓ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ✓ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ✓ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): to surface

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Data point collected within a mapped perennial stream.

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SECTION 404 PRE-CONSTRUCTION NOTIFICATION FORM FOR STATE PROJECTS

DATE: March 31, 2021

Project No.:		**J/P:**	31692(04)	**Facility:**	I-40	**County:**	Beckham
Description:	Bridge Replacement on I-40 over Turkey Creek and Sand Creek						
Let Date:	2025			**Division:**	District 5	**Programmed Construction Project**	

Sta or Str. No.	Location			Waterbody	Type	Description		Calculations			
	Latitude	Longitude	Legal	Critical Resource Water?		Existing Structure/Condition	New Structure	Area acre	Cubic Yards of Fill*	Linear Feet of Impacts	Notes
0501 1622 NX	35.2588	99.7239	SEC 15 T9N R24W	Turkey Creek is not a Critical Resource Water	SB	184'-10", 3-Span Steel Girder Structure with 38' Clear Roadway	215'-10", 3-Span PC Beam Structure with 39' Clear Roadway	0.001	N/A*	0.0	1,4
0501 1622 SX	35.2583	99.7242	SEC 15 T9N R24W	Turkey Creek is not a Critical Resource Water	SB	184'-10", 3-Span Steel Girder Structure with 38' Clear Roadway	215'-10", 3-Span PC Beam Structure with 39' Clear Roadway	0.001	N/A*	0.0	2,4
0501 1998 SX	35.2618	99.6583	SEC 17 T9N R23W	Sand Creek is not a Critical Resource Water	SB	151'-0", 3-Span Steel Beam Structure with 38' Clear Roadway	191'-6", 3-Span PC Beam Structure with 38' Clear Roadway	0.001	N/A*	0.0	3,4

AVOIDANCE AND MINIMIZATION:
Impacts to the waters of the United States are being avoided by placing only structurally necessary fills.

Types: BP--Bank Protection, CC—Channel Change, Chan--Channel Work, RCB--Reinforced Concrete Box, SB--Span Bridge, ** Wet--Wetlands, Misc—Miscellaneous *Only necessary if impacts are over 0.1 acres
**Wetland Information will be added from the delineation report by ODOT

Notes:

1. Ordinary High-Water Mark (OHWM) elevation is 1841.13 ft.
2. Ordinary High-Water Mark (OHWM) elevation is 1841.62 ft.
3. Ordinary High-Water Mark (OHWM) elevation is 1815.63 ft.
4. The impact in the channel is for the construction of new drilled shafts.

FHWA Approved Clearance type: CE: ____ FONSI/EA: ____ EIS: ____ Date: ____ Pending: ____ None: ____

Applicant: Name: Oklahoma Department of Transportation Phone No: (405) 522-0734

Address: 200 Northeast 21st Street, Oklahoma City, OK 73105-3204

Application Prepared By: Name: MacArthur Associated Consultants Phone No: (405) 848-2471

Processing Agent: Oklahoma Department of Transportation

REQUEST FOR PRELIMINARY 404 REVIEW

Submit to 404@odot.org, With Subject "Preliminary 404 Review Request: COUNTY JP 31692(04)"

Preliminary Plans (30%) and Biological must be available to complete review.

Name of Requestor: Angie Aikman	Date Requested: 1/14/2021
Requestor's Phone Number: 405.416.8294	Date Needed By: 1/28/2021
ODOT EPM (Consultant Projects Only): Kate Golden	
Field Division Number: 5	Meeting Date:
County Name: Beckham	PSE Submission Date: October 2021
JP Number: 31692(04)	Target Let Date: 2025

Highway Number: 40

Project Description from JP Info or IMS: Bridge and approaches on I-40: replace bridges over Turkey Creek (east and west bound) and Sand Creek east bound, located 16.2 & 19.9 miles east of the Texas State Line

WATERS/WETLANDS IN PROJECT AREA:

☒ Streams exceed 0.1 acres of impact per structure
(Channel Change and/or value from 404 Notification form)

☐ Wetlands exceed 0.1 acres total in biological report.

Preliminary (30%) Plans

☒ Attached Preliminary (30%) Plans

☐ On ProjectWise

Additional Project Information As Needed:

For 404 Program Use Only:

Determination Based on Preliminary (30%) Plans

Wetlands:

- ☒ None Impacted
- ☐ Wetland impacts ≤ 0.1 acre; Mitigation likely not required
- ☐ Wetland impacts > 0.1 acre; Mitigation may be required

Streams:

- ☒ Stream Impacts ≤ 0.1 acre; mitigation likely not required
- ☐ None Impacted
- ☐ Stream impacts >0.1 acre; mitigation may be required
- Other:_____

Type of Permit Application (Preliminary Determination)

- ☒ No PCN Required
- ☐ PCN with Mitigation
- ☐ PCN Only
- ☐ Individual Permit

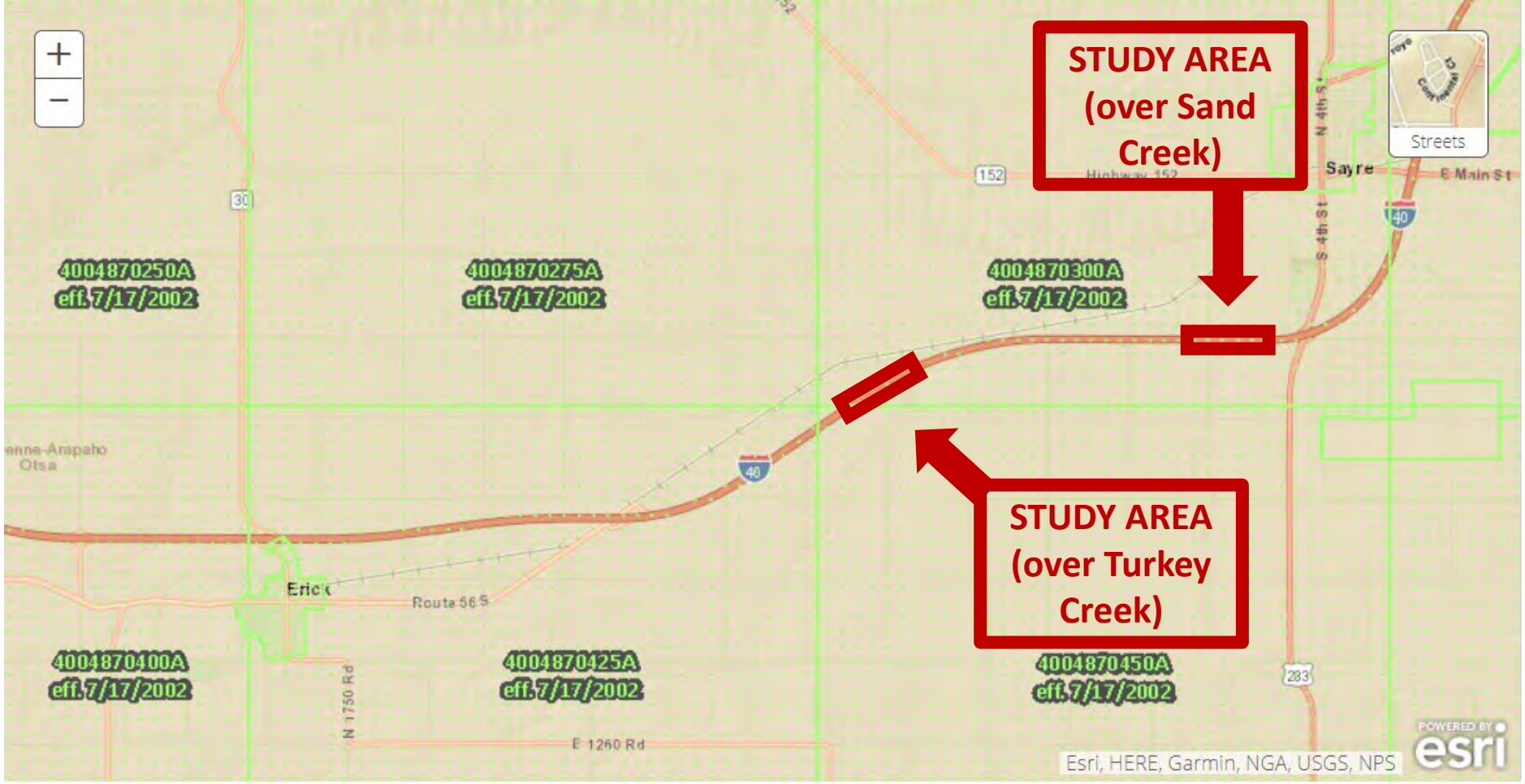
The purpose of this form is to determine the appropriate Clean Water Act Section 404 permit application.	
* Below 0.1 acres of impact for streams:	Pre-construction Notice (PCN) to the USACE IS NOT required.
* Below 0.1 acres of impact for wetlands:	PCN to the USACE IS required. Compensatory mitigation for wetland impacts may be required.
* 0.1 to 0.5 acres of impact:	PCN to the USACE IS required. Compensatory mitigation for impact to wetlands IS required. Compensatory mitigation for stream impacts may be required.
* Above 0.5 acres of impact:	An Individual Permit IS required. Compensatory mitigation IS required.

Comments:

No jurisdictional wetlands will be impacted. The only stream impacts are from the drilled shafts for the proposed span bridges. This will be a No PCN type NWP 14.

-JBB 1/20/2021

FLOOD PLAIN INFORMATION



PIN
Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
Selected FloodMap Boundary
Digital Data Available
No Digital Data Available
Unmapped

OTHER AREAS
NO SCREEN Area of Minimal Flood Hazard Zone X
Effective LOMRs
Area of Undetermined Flood Hazard Zone D
Otherwise Protected Area
Coastal Barrier Resource System Area

SPECIAL FLOOD HAZARD AREAS
Without Base Flood Elevation (BFE) Zone A, V, A99
With BFE or Depth
Regulatory Floodway Zone AE, AO, AH, VE, AR

OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee. See Notes. Zone X
Area with Flood Risk due to Levee Zone D

OTHER FEATURES
20.2 Cross Sections with 1% Annual Chance
17.5 Water Surface Elevation
Coastal Transect
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature

GENERAL STRUCTURES
Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall

HAZARDOUS WASTE STUDIES

OKLAHOMA DEPARTMENT OF TRANSPORTATION
CONSULTANT REPORT REVIEW – HAZARDOUS WASTE

Reviewed By: Evan Mace
Review Date: 9/16/2020
Consultant: Guernsey
County: Beckham
J/P Number: 31692(04)

1. PROJECT DESCRIPTION: BRIDGE & APPROACHES: I-40, OVER TURKEY CR (EAST & WEST BOUND) AND SAND CR EAST BOUND, LOCATED 16.2 & 19.9 MILES EAST OF THE TEXAS STATE LINE.

2. LEVEL OF INVESTIGATION: ☐ Recon ☒ Assessment ☐ Sampling

3. SUMMARY OF INVESTIGATION

A. Relative risk of contamination in study footprint: ☒ Low ☐ Moderate ☐ High
B. Potential for contamination, if present, to affect project: ☒ Low ☐ Moderate ☐ High
C. Did Consultant recommend additional work? ☒ No ☐ Yes (describe below):

4. RECOMMENDATIONS*:

- ☒ Approval to Proceed (No Further Action)
- ☐ Approval to Proceed, Pending:
  - ☐ Avoidance of described site(s)
  - ☐ Plan Notes regarding described site(s) (See Section 5)
  - ☐ Additional investigation by ODOT
- ☐ Approval NOT Recommended

* - If different from Consultant, explain in Section 6 General Comments

5. PLAN NOTES: None needed.

6. GENERAL COMMENTS: An ISA was performed by Guernsey in July 2020 which identified utilities within the project corridor. These will be handled via standard ODOT right of way procedure and are not RECs to the project. There are various unmapped sites which were not observed during site recon and are not considered RECs to the project. There is one LUST site, one VCP site, and two RCRA sites found within the search radius. None of these sites were observed during site recon and thus are not considered RECs to the project. There are no hazardous waste concerns associated with this project. No further action is necessary to proceed.

ATTACH EXCERPTS FROM REPORT, AS APPROPRIATE.*

*The full document is on file with ODOT's Environmental Programs Division. Please contact David Edwards at (405) 521-2673 or daedwards@odot.org for more information.

INITIAL SITE ASSESSMENT
PROJECT FOR TWO BRIDGES & APPROACHES ON I-40
BECKHAM COUNTY, OKLAHOMA

ODOT CONTRACT NUMBER: EC-2016
ODOT PROJECT NUMBER: J3-1692(004)
ODOT JOB/PIECE NUMBER: 31692(04)
GUERNSEY PROJECT NO.: OK70425001

Prepared For:

OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
Oklahoma City, OK

Prepared by:

Guernsey
5555 North Grand Blvd.
Oklahoma City, OK
405.416.8100

CERTIFICATION PAGES

FOR:
INITIAL SITE ASSESSMENT
PROJECT FOR TWO BRIDGES & APPROACHES ON i-40
BECKHAM COUNTY, OKLAHOMA

ODOT CONTRACT NUMBER: EC-2016
ODOT PROJECT NUMBER: J3-1692(04)CI
ODOT JOB/PIECE NUMBER: 31692(04)
GUERNSEY PROJECT NO.: OK70425001

"We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312" and

"We have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Angela Aikman

Angela Aikman, CIE
Vice President
Manager, Environmental

Petroleum Storage Tank Work Scope Certification Sheet

I have performed review of Petroleum Storage Tank findings within a Phase I Environmental Site Assessment in accordance with the scope and limitations of ASTM Practice E 1527-13 of the **Project for Two Bridges & Approaches on I-40, Beckham County, Oklahoma.**

The work scope was limited to review of Petroleum Storage Tank issues by an Oklahoma Corporation Commission (OCC) - Licensed Consultant.

The primary focus of review was information included within Sections 3.4.8 and 3.4.9 of the INITIAL SITE ASSESSMENT PROJECT FOR TWO BRIDGES & APPROACHES ON I-40 BECKHAM COUNTY, OKLAHOMA (Guernsey Project No. OK70425001 draft report).

Banks Environmental Data reported one mapped Leaking Petroleum Storage Tank (LPST) site within a half-mile radius of the Area of Investigation (AOI). The Flying J Travel Plaza #705 (OCC Facility #0520770) at 3400 S 4th, Sayre, OK, is located approximately .36 miles northeast of the AOI. Topography at this location falls to the north, away from the AOI. Due to distance and topography, this facility is not considered a Recognized Environmental Condition (REC) for the AOI.

Banks listed no Petroleum Storage Tank (PST) sites within the vicinity of the AOI. Five unmapped Petroleum Storage Tank (PST) sites were listed; however, site reconnaissance, Banks location descriptions, and aerial photograph review did not indicate presence of these facilities in the vicinity of the AOI.

This review has revealed no evidence of Recognized Environmental Conditions associated with Petroleum Storage Tanks.

Sheila E. Baber

Sheila E. Baber, PG
Senior Geologist, Technical Manager
Licensed OCC Consultant #0042

1 EXECUTIVE SUMMARY

The Oklahoma Department of Transportation (ODOT) requested that Guernsey complete an Initial Site Assessment (ISA) for the replacement of bridges and approaches over Turkey Creek and Sand Creek on I-40, near the Texas border, Beckham County, Oklahoma. The proposed work will include the replacement of two bridges and approaches on I-40, 16.2 and 19.9 miles east of the Texas State Line. The Turkey Creek Area of Investigation (AOI) is within Sections 14 and 14 Township 9 North, Range 24 West. The Sand Creek AOI is within Sections 7, 8, 17, and 18 and Township 9 North, Range 23 West. Figure 1A and 1B, Site Location MapS, depict the general location of the AOI. ODOT has requested the ISA realizing the potential presence of hazardous waste or soil/groundwater contamination within or adjoining the proposed project area, could lead to project delays and escalated construction costs.

The purpose of the ISA is to identify potential environmental concerns by reviewing historical data and regulatory information, performing interviews, and conducting a visual inspection of the site and surrounding area.

The potential environmental concerns were developed from the available historical information and other data obtained during the site reconnaissance. A list of contacts is identified on Table 1. Site photographs are provided in Appendix A.

Thirteen potential environmental concerns were determined by this ISA and are listed below:

- Overhead electric lines and pole mounted transformers were observed throughout the Sand Creek AOI
- Buried fiber-optic cables were observed along the south side of the Turkey Creek AOI and both sides of the Sand Creek AOI; these cables are owned by Bell Telephone Co and AT&T
- Water lines were observed along the north and south sides of the Sand Creek AOI
- Transmission lines were observed adjacent to the Turkey Creek AOI
- Natural gas pipelines owned by Enable Midstream Partners were observed crossing both AOIs
- According to the State/Tribal Petroleum Storage Tank (PST) database, there are five unmapped sites identified:
    - Sayre Oil Co., HWY 66 East, Sayre, OK
    - Dimp Robertson Mobil, Rt 1 5 Mi N HWY 283, Sayre, OK
    - D E Dickerson Hamilton DX, Rt 1 at Murphy gin 4 Mi W 5 Mi N of Sayre, Sayre, OK
    - L L Chambers, Rt 4, HWY 66, 8 Mi East, Sayre, OK
    - Archer Airport, 1 ½ Mi North, Sayre, OK

- According to the Emergency Response Notification Systems (ERNS) database, there are ten unmapped sites identified:

    - Advanced Dist Systems, I-40 MM 28, Sayre, OK
    - Dawes Transport Inc. Rest Stop I-40, Erick, OK
    - Odessa Oil investment Co., North of I-40 Sayre, OK
    - Overseas Transportation, Sayre, OK
    - Halliburton, Sayre, OK
    - Y, Beckham County, OK
    - N, Rt 40 near 283, Sayre, OK
    - Near HWY 43, Beckham County, OK
    - Southwest Motor Freight Lines, 26 MM I-40, Sayre, OK
    - I-40 WB, Sayre, OK

- According to the Leaking Petroleum Storage Tank (LPST) database, there is one mapped site identified:

    - Pilot Travel Centers llc., 2400 S 4th Sayre, OK

- According to the Voluntary Cleanup Program (VCP) database, there is one mapped site identified:

    - Flying J Truck Stop #705, 2400 S 4th, Sayre, OK

- According to the Resource Conservation Recovery Act (RCRA) database, there are four sites identified:

    - Oklahoma Department of Transportation, I-40 EB at Sand Creek, Sayre, OK (mapped)
    - Oklahoma DOT, I-40 over Sand Creek, Sayre, OK (mapped)
    - Sayre Livestock Auction, E of Sayre, OK (unmapped)
    - Chemical Enterprises Sayre, OK (unmapped)

- According to the Comprehensive Environmental Response Superfund Enterprise Management System No Further Remedial Action Planned (CER SEMS NFRAP) database, there is one unmapped site identified:

    - Butcher Boy Enterprises, Sayre, OK

- According to the State/Tribal Disposal or Landfill (SWLF) database there is one unmapped site identified:

    - City of Sayre, OK

The recommendations to mitigate these possible concerns are listed below:

- The owners of the overhead electric lines, pole mounted transformers, buried fiber-optic cables, natural gas pipelines, and water lines should be contacted regarding the upcoming activities

- According to the PST database, there are five unmapped sites identified. During the site reconnaissance on July 14, 2020, these sites were not observed. All of these unmapped properties have statuses of “Inactive”; therefore, these sites should not be a concern

- According to the ERNS database, there are ten unmapped sites identified. During the site reconnaissance on July 14, 2020, these sites were not observed; therefore, maintaining awareness of these off-site facilities is recommended

- According to the LPST database there is onenmapped site identified. During the site reconnaissance on July 14, 2020, this site was not observed; therefore, maintaining awareness of this off-site facility is recommended

- According to the VCP database, there is one unmapped site identified. During the site reconnaissance on July 14, 2020, this site was not observed; therefore, maintaining awareness of this off-site facility is recommended

- According to the RCRA database, there are two mapped and two unmapped sites identified. During the site reconnaissance on July 14, 2020, these sites were not observed; therefore, maintaining awareness of these off-site facilities is recommended

- According to the CER SEMS NFRAP database, there is one unmapped site identified. During the site reconnaissance on July 14, 2020, this site was not observed; therefore, maintaining awareness of this off-site facility is recommended

- According to the SWLF database, there is one unmapped site identified. During the site reconnaissance on July 14, 2020, this site was not observed; therefore, maintaining awareness of this off-site facility is recommended

9. BANKS VCP Database Findings:

According to the VCP database, there is one mapped site identified:

1. Flying J Truck Stop #705, 2400 S 4th, Sayre, OK

***Recommendation**: During the site reconnaissance on July 14, 2020 this site was not observed. This property has a status of "closed," therefore, this site should not be a concern.*

10. BANKS RCRA Database Findings:

According to the RCRA database, there are two mapped sites identified:

1. Oklahoma Department of Transportation, I-40 EB at Sand Creek, Sayre, OK

2. Oklahoma DOT, I-40 over Sand Creek, Sayre, OK

According to the RCRA database, there are two unmapped sites identified:

1. Sayre Livestock Auction, E of Sayre, OK

2. Chemical Enterprises Sayre, OK

***Recommendation:** During the site reconnaissance on July 14, 2020 this site was not observed. These properties has a status of "closed," therefore, this site should not be a concern.*

11. BANKS CER SEMS NFRAP Database Findings:

According to the CER SEMS NFRAP database, there is one unmapped site identified:

1. Butcher Boy Enterprises, Sayre, OK

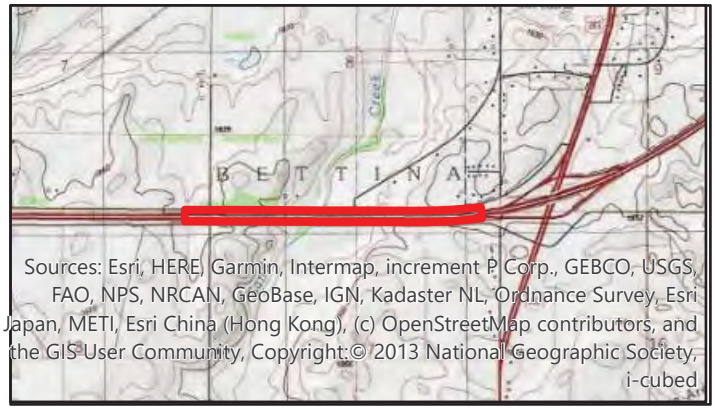
***Recommendation**: During the site reconnaissance on July 14, 2020 this site was not observed. This property has a status of "closed," therefore, this site should not be a concern.*

12. BANKS SWLF Database Findings:

According to the SWLF database, there is one unmapped site identified:

1. City of Sayre, OK

***Recommendation:** During the site reconnaissance on July 14, 2020 this site was not observed. This property has a status of "closed," therefore, this site should not be a concern.*



Local Area Map

GENERAL VICINITY MAP

N

guernsey ENGINEERS ARCHITECTS CONSULTANTS

SITE LOCATION MAP

PROJECT FOR BRIDGE AND APPROACHES OVER SAND CREEK ON I-40

INITIAL SITE ASSESSMENT

BECKHAM COUNTY, OKLAHOMA

Prepared by: GTA

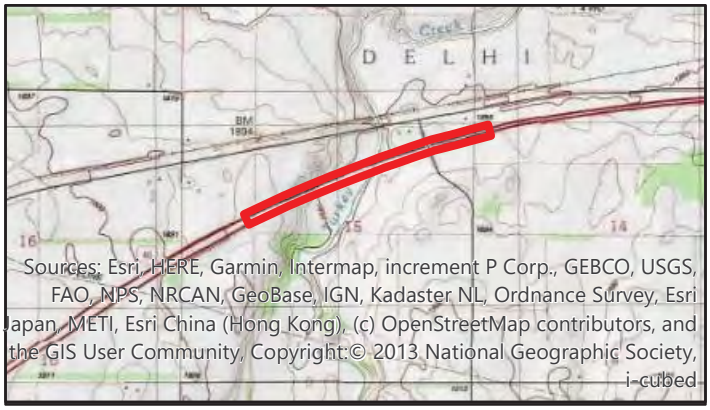
Approved by: ALA

Date: JULY 2020

Job No: OK70425001

FIGURE 1A

OKLAHOMA STATE MAP



Local Area Map

GENERAL VICINITY MAP

N

guernsey ENGINEERS ARCHITECTS CONSULTANTS

SITE LOCATION MAP

PROJECT FOR BRIDGE AND APPROACHES OVER TURKEY CREEK ON I-40

INITIAL SITE ASSESSMENT

BECKHAM COUNTY, OKLAHOMA

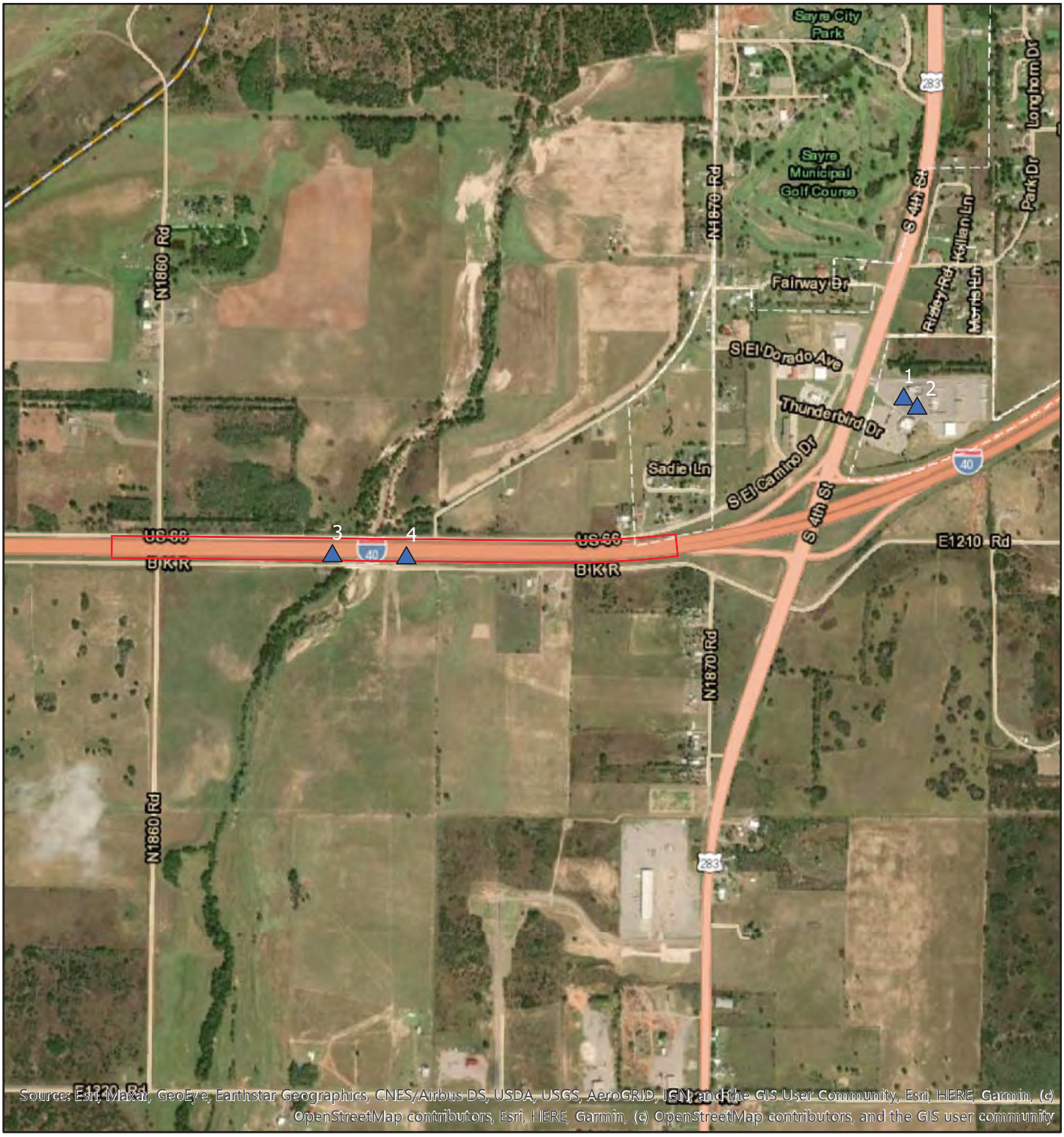
Prepared by: GTA

Approved by: ALA

Date: JULY 2020

Job No: OK70425001

FIGURE 1B



REC

AOI

guernsey ENGINEERS ARCHITECTS CONSULTANTS

RECOGNIZED ENVIRONMENTAL CONCERNS MAP

PROJECT FOR BRIDGE AND APPROACHES
OVER SAND CREEK ON I-40
INITIAL SITE ASSESSMENT
BECKHAM COUNTY, OKLAHOMA

Prepared by: GTA
Approved by: ALA
Date: JULY 2020
Job No: OK70425001

FIGURE
2A

N

There are no RECs for this site

AOI

guernsey ENGINEERS ARCHITECTS CONSULTANTS

RECOGNIZED ENVIRONMENTAL CONCERNS MAP

PROJECT FOR BRIDGE AND APPROACHES
OVER TURKEY CREEK ON I-40
INITIAL SITE ASSESSMENT
BECKHAM COUNTY, OKLAHOMA

Prepared by: GTA
Approved by: ALA
Date: JULY 2020
Job No: OK70425001

FIGURE
2B

TABLE 2
RECOGNIZED ENVIRONMENTAL CONCERNS TABLE
PROJECT FOR TWO BRIDGES & APPROACHES ON NS-435
LATIMER COUNTY, OKLAHOMA

Map ID	Name Address	Relation to AOI (elevation)	Risk Potential	Listed in the Regulatory Database			Observed During Site Reconnaissance	
				Yes	Database	No	Yes	No
1	Flying J Travel Plaza #705 2400 S 4th, Sayre, OK	1835 feet	Low	X	LPST			X
2	Butler Truck Lines Tank Rupture and Diesel Release Flying J Truck Stop #705 2400 S 4th, Sayre, OK	1835 feet	Low	X	VCP			X
3	Unknown I-40 over Sand Creek Sayre, OK	1829	Low	X	RCRA			X
4	Unknown I-40 Eastbound at Sand Creek, Sayre, OK	1829	Low	X	RCRA			X
N/A	Butcher Boy Enterprises Lagoon Rt 2 SW/4 NW/4 Sec 5 T9N R23W, Sayre, OK 73662	Unknown	Low	X	CER SEMS NFRAP			
N/A	I-40, M.M.28, Sayre, OK	Unknown	Low	X	ERNS			
N/A	Rest Stop I 40, Erick, OK 73662	Unknown	Low	X	ERNS			
N/A	North of I-40, Sayre, OK	Unknown	Low	X	ERNS			
N/A	Sayre, OK	Unknown	Low	X	ERNS			
N/A	Sayre, OK	Unknown	Low	X	ERNS			
N/A	Beckham County TS 9N R 23W Sayre, OK N OF Pipeline	Unknown	Low	X	ERNS			
N/A	On Rt 40 near 283 Sayre, OK Beckham County, OK	Unknown	Low	X	ERNS			
N/A	Sayre OK, Beckham County, Nearest Rd US HWY 43, OK	Unknown	Low	X	ERNS			
N/A	Southwest Motor Freight Lines 26 M.M. on I-40, Sayre, OK	Unknown	Low	X	ERNS			
N/A	I-40 Westbound, Sayre, OK	Unknown	Low	X	ERNS			

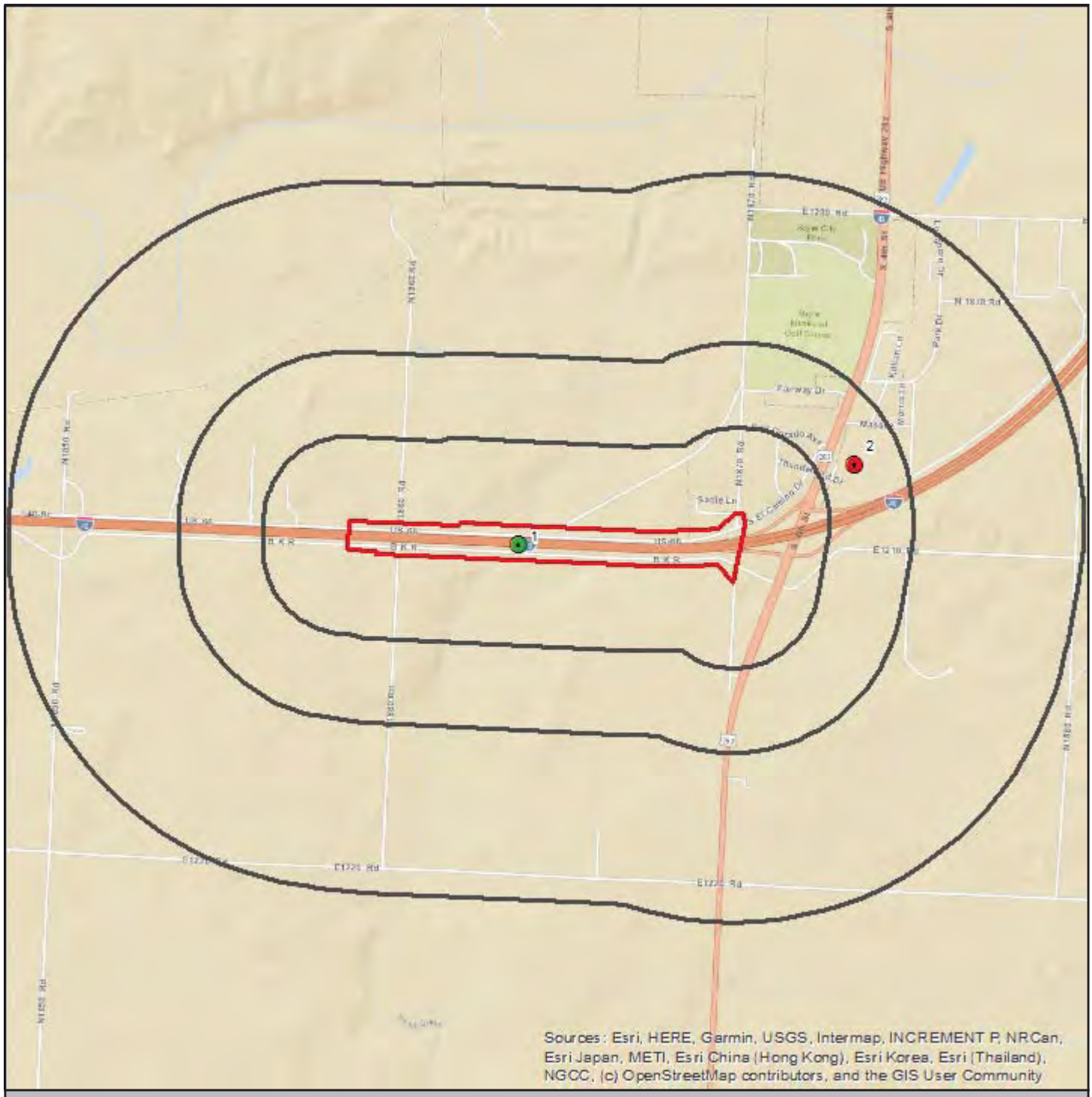
TABLE 2
RECOGNIZED ENVIRONMENTAL CONCERNS TABLE
PROJECT FOR TWO BRIDGES & APPROACHES ON NS-435
LATIMER COUNTY, OKLAHOMA

Map ID	Name Address	Relation to AOI (elevation)	Risk Potential	Listed in the Regulatory Database			Observed During Site Reconnaissance	
				Yes	Database	No	Yes	No
N/A	City of Sayre OK	Unknown	Low	X	SWLF			
N/A	Sayre Oil Co. HWY 66 East, Sayre, OK 73662	Unknown	Low	X	PST			
N/A	Dimp Robertson Mobile Rt 1 5 Mi N HWY 283, Sayre, OK 73662	Unknown	Low	X	PST			
N/A	D.E. Dickerson Rt 1 At Murphy Gin 4 Mi W 5 MI N Of Sayre, Sayre, OK 73662	Unknown	Low	X	PST			
N/A	L L Chambers Rt 4, HWY 66, 8 Mi EAST, Sayre, OK 73662	Unknown	Low	X	PST			
N/A	Archer Airport 1 1/2 MI North, Sayre, OK 73662	Unknown	Low	X	PST			
N/A	Sayre Livestock Auction E Of City, Sayre, OK 73662	Unknown	Low	X	RCRA			
N/A	Chemical Enterprises Inc., Sayre, OK 73662	Unknown	Low	X	RCRA			

TABLE 2
RECOGNIZED ENVIRONMENTAL CONCERNS TABLE
PROJECT FOR TWO BRIDGES & APPROACHES ON NS-435
LATIMER COUNTY, OKLAHOMA

Map ID	Name Address	Relation to AOI (elevation)	Risk Potential	Listed in the Regulatory Database			Observed During Site Reconnaissance	
				Yes	Database	No	Yes	No
N/A	ARCHER AIRPORT 1 1/2 MI NORTH, Sayre, OK 73662	Unknown	Low	X	PST			
N/A	SAYRE LIVESTOCK AUCTION E OF CITY, SAYRE, OK 73662	Unknown	Low	X	RCRA			
N/A	CHEMICAL ENTERPRISES INC UNKNOWN, SAYRE, OK 73662	Unknown	Low	X	RCRA			

Summary Map - 1 Mile Buffer



Turkey Creek & Sand Creek

Single Site | Cluster Site | Large Tract | Cluster Site with Large Tract

RCRA COR, RCRA TSD, CER, LPST, NPL, ST NPL, SWLF

Single Site | Cluster Site | Large Tract | Cluster Site with Large Tract

RCRA GEN, ST & FED BWN, ST & FED EC, ST & FED IC, DNPL, CER NFRAP, PST, VCP, ST CER

Single Site | Cluster Site | Large Tract | Cluster Site with Large Tract

ERNS, HW, RCRA, DRYC

Target Property

Search Buffer

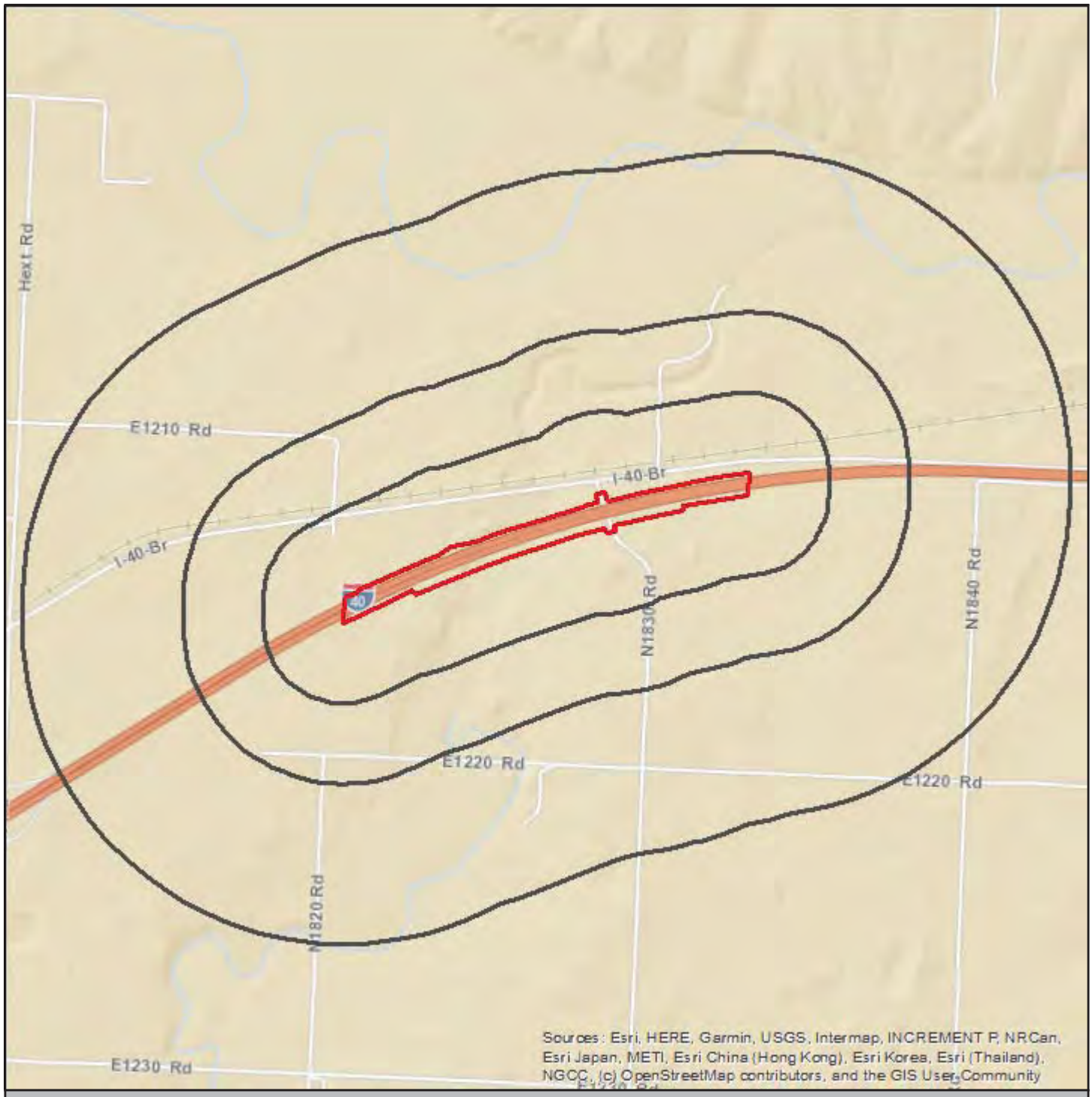
1 : 27,000

1 inch = 0.426 miles
1 inch = 2250 feet
1 centimeter = 0.270 kilometers
1 centimeter = 270 meters

N

Lambert Conformal Conic Projection
1983 North American Datum
First Standard Parallel: 33 0' 00" North
Second Standard Parallel: 45 0' 00" North
Central Meridian: 96 0' 00" West
Latitude of Origin: 39 0' 00" North

Summary Map - 1 Mile Buffer



Turkey Creek & Sand Creek

Single Site | Cluster Site | Large Tract | Cluster Site with Large Tract
RCRA COR, RCRA TSD, CER, LPST, NPL, ST NPL, SWLF

Single Site | Cluster Site | Large Tract | Cluster Site with Large Tract
RCRA GEN, ST & FED BWN, ST & FED EC, ST & FED IC, DNPL, CER NFRAP, PST, VCP, ST CER

Single Site | Cluster Site | Large Tract | Cluster Site with Large Tract
ERNS, HW, RCRA, DRYC

Target Property

Search Buffer

1 : 28,500
1 inch = 0.450 miles
1 inch = 2375 feet
1 centimeter = 0.285 kilometers
1 centimeter = 285 meters

N

Lambert Conformal Conic Projection
1983 North American Datum
First Standard Parallel: 33 0' 00" North
Second Standard Parallel: 45 0' 00" North
Central Meridian: 96 0' 00" West
Latitude of Origin: 39 0' 00" North

OTHER

Oklahoma Department of Transportation
Project Management Division (405)522-7601 Fax (405) 522-7612 Room 1-C6

DATE: **June 30, 2016**

TO: **Distribution List**

FROM: **Project Management Division**

SUBJECT: **Draft - Project Initiation**

J/P Number: 31692(04) County: Beckham Highway: I-40 Division: 5
PS&E Date: FFY 2023 R/W Date : N/A Drive-out Date: 06/10/2016
Programmed Estimate: $6,000,000
Project Description: Bridge and Approaches over Turkey Creek (East & West Bound) & Sand Creek (East Bound) located 16.2 & 19.7 miles east of the Texas State Line.

EXISTING INFORMATION

Reconnaissance Information Available

□ Yes Location http://plansrv1/osd/JP########
■ No

Functional Classification

Area Type:	□ Urban	□ Suburban	■ Rural	
Terrain Type:	□ Flat	■ Rolling	□ Mountainous	
Access Control:	■ Full	□ Partial	□ None	
Highway Type:	■ Interstate	□ Principal Arterial	□ Minor Arterial	□ Collector
	■ NHS	□ Non-NHS	□ STRAHNET	□ Scenic Hwy

Existing Condition

Current ADT: 5950 % Trucks: 53% Number of Lanes: 2 Lane Width: 12'
Outside Shoulder Width: 10' Inside Shoulder Width: 4'
■ Open Section □ Curb & Gutter ■ Divided, median width: 70'
□ Other (describe):
Pavement Type: Asphalt Pavement Condition: ■ Good □ Fair □ Poor
Shoulder Type: Asphalt Shoulder Condition: ■ Good □ Fair □ Poor
Storm Sewer ■ No □ Yes Storm Sewer Condition: □ Good □ Fair □ Poor
Sidewalks ■ No □ Left Width: ' □ Right Width: '

Bridges within Project extents: SEE ATTACHED INSPECTION REPORTS
Bridge One NBI #: 17529
Bridge Two NBI #: 17530
Bridge Three NBI #: 14138

CONSIDERATIONS

Environmental/Right-of-Way

■ Historic Properties, list: 1936 Farmstead
■ Archeological Sites, list: Possible burial site in the median located 760' west of the Sand Creek bridge. Possible old camp site locate 600' N/NW of the Sand Creek bridge.
□ Cemeteries, list:
□ Hazardous Waste Sites/ AST's/ Coal Mines/LUST Sites, list:
■ Threatened & Endangered Species, list with seasonal restrictions: least tern, piping plover, red knot, whooping crane & bald eagle.
□ Aquatic Species, list with seasonal restrictions:
□ Section 4F or 6F Properties, list:
■ Farmland □ Wetlands □ Scenic Rivers and Protected Aquifers □ Critical Resource/ Sensitive Waters/Impaired Waters (type of impairment), List:
□ FEMA Flood Zone □ A □ AE □ X
□ Compensatory Flood Storage
□ Indian/Tribal/Federal/Wetland Reserve Program Properties, List:
■ Scenic Byway/Route 66 – The north frontage road at the Sand Creek bridge is considered historic Route 66.
Swallows and nests were observed at the Sand Creek bridge. Swallow nests were observed at both Turkey Creek bridges. Mature trees were observed near the Turkey Creek bridges.

Alternative Impacts

□ Other Agencies List:
□ Turnpike Involvement
□ Metropolitan Planning Organizations List:

Right-of Way/Utilities

■ Additional RW Anticipated Describe: No new right-of-way will be needed to construct this project.
■ Utility Conflicts Describe: No utility relocations will be needed to construct this project.

Permit Information

Design Exception Anticipated: ■ No □ As required by design □ Yes, type:
Maintenance Agreements (Lighting, Signals, etc.): ■ No □ Yes, type:
Permits required: □ FAA ■ USACE □ OWRB □ Railroad □ Other, type:
Comments for required permits: A 404 PCN will be needed for all three bridges.

Special Considerations:

Place a note on the plans for the beams and guardrail to be placed on the existing right-of-way to become the property of Beckham County. Place a note on the plans for all bearing to become the property of ODOT. Need to avoid the possible burial sites for the crossover west of Sand Creek. This burial site is mentioned above as an Archeological Site to avoid.

.....

PROPOSED IMPROVEMENT

Project Intent: Replace three bridges that are at risk of being structurally deficient.

Description of Proposed Improvements:
Turkey Creek Bridges: NBI 17529 & 17530 (East & West Bound)
Replace these two bridges to accommodate a 38' clear roadway, keep the same low beam elevation, the same 45 degree skew and hold the same Channel C/L. The recommend span lengths were 65'-80'-65' using Type III PC Beams. The final low beam elevation and span lengths will be determined at the Hydraulic Conference. Utilize a 'F' shape parapet wall. Cord the beam line due to the horizontal curve. The finished grade will be 8" to 10" higher than existing. Place new guardrail. There will need to be a pay item to remove and reset the cable barrier. The shoulders will need to be beefed to handle traffic. Crossovers will be placed on both sides of these bridges. The west crossover will need to miss the burial site that is listed in the Environmental portion of this report.

Sand Creek Bridge: NBI 14138 (East Bound only)
Replace this bridge to accommodate a 38' clear roadway, keep the same low beam elevation, the same 30 degree skew and hold the same Channel C/L. The recommend span lengths were 3-65' Type III PC Beams. The final low beam elevation and span lengths will be determined at the Hydraulic Conference. Utilize a 42" straight faced parapet wall. This wall will match the north bridge. The finished grade will be 8" to 10" higher than existing. Place new guardrail. There will need to be a pay item to remove and reset the cable barrier. The shoulders will need to be beefed to handle traffic. An isolated crossover will be placed on both sides of this bridge. It was mentioned, for the rip-rap to be moved and the slopes to be regraded.

Posted Speed: 70 mph
Design Speed:

Potential to transfer steel bridge beams to County
□ No ■ Yes □ N/A
Fully document specific reasons preventing transfer:

Project Termini
Beginning of Project: Approximately 0.5 mile west of both bridges.
End of Project: Approximately 0.5 mile east of both bridges.
Limits of Survey:
Turkey Creek bridges:
Survey will begin 2000 feet west of the beginning of the bridges, and extend to a point 2000 feet east of the east end of the bridges. Survey width shall be 200 feet left and 200 feet right of the centerline of survey. In the area 500 feet west and extending to 500 feet east of the bridges, survey width shall be 500 feet left and 500 feet right.

Sand Creek bridge:
Survey will begin 2000 feet west of the beginning of the bridges, and extend to a point 2000 feet east of the east end of the bridges. Survey width shall be 200 feet left and 200 feet right of the centerline of survey. In the area 500 feet west and extending to 500 feet east of the bridges, survey width shall be 500 feet left and 500 feet right.

Limits of NEPA Survey Area: Width - use the existing right-of-way. Length - use the same as the Survey limits.

Typical Section

□ Open Section □ Curb & Gutter ■ Divided, median width: various
□ Other (describe):
Number of Lanes: 4 Lane Width: 12'
Outside Shoulder Width: 10' Inside Shoulder Width: 4'
Storm Sewer ■ No □ Yes
Sidewalks ■ No □ Left Width: ' □ Right Width: '
Sidewalk decision comments:

Overlay □ No ■ Yes, thickness:
Coldmill ■ No □ Yes, thickness:
Add Shoulders ■ No □ Yes, width: '
Bridge Width – To accommodate a 38' clear roadway

Alignment

■ Existing
□ New, located □ North or □ South or □ East or □ West of existing
□ Parallel Lanes, located □ North or □ South or □ East or □ West of existing
Alignment decision comments:
□ Spot Improvements
□ Horizontal, Description:
□ Vertical, Description:

Detour

□ Shoo-fly, located □ North or □ South or □ East or □ West of existing
□ Widening, located □ North or □ South or □ East or □ West of existing
■ Crossovers
□ Close Road □ Round Robin Approved
□ Signed Detour, Route Description:
Anticipated duration of Detour:
□ Public Meeting Required □ Agreement Required
□ Phased Construction, Description:

Aesthetics ■ No □ Yes
Description of proposed aesthetic treatments:

Traffic Items

Traffic Management Plan □ No ■ Yes
Median Barrier □ No ■ Yes
New Guardrail □ No ■ Yes
End Treatment □ No ■ Type: GET's
Highway Lighting ■ No □ Outside or □ Median
Traffic Signals ■ No □ Location(s):

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:	$4,200,000
Bridge:	$3,500,000
Traffic Control:	$ 100,000
Signing and Striping:	$ 50,000
Mobilization:	$ 379,000
Staking:	$ 164580
E & C:	$ 493740
Total Construction:	$8,887,320

Program Revisions - None

Estimate: $ Letting Date: Project Length:
Work Type:
Description:

Attendee Name	Representing
Will Snipes	Division 5
Mike Clanton	Division 5
Dan Forbes	Division 5
Shawn Davis	Clinton Residency
Nick Davidson	Roadway Design
Brian Rapson	Roadway Design
Oscar Molla	Bridge Design
Judy Dennis	Environmental Programs Division
Roger Schultz	Project Management Division

Attachments (Bridge Inspection Reports)

Distribution List:

Director of Engineering
Director of Capital Programs
Bridge Division
Environmental Programs Division
FHWA
Field Division

Project Management Division
Right-of-Way Division
Roadway Design Division
Survey Division
Strategic Asset & Performance Management Division
Traffic Engineering Division

SCOPING MEETING MINUTES
BRIDGE AND APPROACHES OVER TURKEY CREEK (EAST & WEST BOUND) & SAND CREEK (EAST BOUND) LOCATED 16.2 & 19.7 MILES EAST OF THE TEXAS STATE LINE, BECKHAM COUNTY, JP 31692(04)
DATE: March 6, 2020 (meeting occurred on March 4, 2020)

Project Need/Intent and Proposed Project Description

- Replace three "at risk of being structurally deficient" bridges on the existing alignment (I-40)
- The east and west bound bridges over Turkey Creek (west most structures on I-40) will be replaced
- The east bound bridge over Sand Creek (east most structure on I-40) will be replaced
- The west bound bridge over Sand Creek (east most structure on I-40) was replaced approximately 8 to 9 years ago
- Crossovers will be used during construction to detour traffic, no road closure
- Use revised NEPA footprint (MacArthur to revise and ODOT to provide) for cost estimates and studies

Cultural Resources Issues – Archeological Sites/Cemeteries/Historic Structures

- There is a burial site in the median located 760 ft. west of the Turkey Creek bridges
- Possible old camp site located 600 ft. N/NW of the Sand Creek bridge
- ODOT-CRP will address field studies and report
- There will be a plan note regarding avoidance/monitoring of the burial site during construction

Property Owner Notification/Potential Federal or Tribal Properties

- Due to all the work being within the existing ODOT ROW, letters will not be mailed to property owners, BIA, and BLM

Endangered Species – Survey and Restrictions

- Based on the Initiation Report, there are several threatened and endangered species (Least Tern, Piping Plover, Red Knot, Whooping Crane, and Bald Eagle) in the vicinity
- Blackbird to conduct normal/typical biological studies

Hazardous Waste

- There is some ground disturbance south of the Turkey Creek bridges
- Guernsey will do a full ISA with UST Consultant review

R/W Acquisition

- No permanent or temporary right-of-way is required

Timeline & Monthly Status Reports & Availability of Plan

- Monthly Status Report will be submitted on the 15th of each month
- 30% plans will be completed in May 2020
- 60% plans will be completed in September 2020
- ROW plans will be completed in November 2020
- Environmental document should be complete by January 2021

Action Items & Other Items Discussed

- Route 66 is in the vicinity of the project
- No need for NRCS consultation
- Recon Report was completed in house (by ODOT)
- The designer for this project is MacArthur Associated Consultants (MAC)
- MAC needs to revise the NEPA Footprint
- ODOT to provide revised NEPA Footprint and Recon Report

Attendees

- Siv Sundaram, ODOT
- Leslie Novotny, ODOT
- Mebin Mathew, ODOT
- Jeff Pearl, ODOT
- Scott Sundermeyer, ODOT
- Roger Schultz, ODOT
- Angie Aikman, Guernsey

Monthly Status Report

NEPA Consultant: C.H. Guernsey Eng Contract/Task Order: EC 2016B TO 1

Project: BECKHAM
31692(04)
I-40: REPLACE BRIDGES OVER TURKEY CR (EAST & WEST BOUND) AND SAND CR EAST BOUND, LOCATED 16.2 & 19.9 MILES EAST OF THE TEXAS STATE LINE.

Step ID		Duration in Calendar days	Target Start from Task Order	Target Completion Date from Task Order:	Actual Start Date:	Actual Completion	Responsible Party	Comments
1.1	Scope Clarification	0	3/6/2020	3/6/2020		3/6/2020	Contract Administrator	
1.1	Task Order Request	15	3/6/2020	3/21/2020			Contract Administrator	Need revised footprint from MAC to complete cost estimates
1.2	Task Order Approval	45	3/21/2020	5/5/2020		4/30/2020	Contract Administrator	
1.3	Notice to Proceed Date	0	5/5/2020	5/5/2020		4/30/2020	Contract Administrator	
2.1	Provide NEPA Study Footprint	0	5/5/2020	5/5/2020	4/30/2020	5/4/2020	Designer	
2.2	Approved Study Footprint and Location Map	15	5/5/2020	5/20/2020	5/4/2020	5/15/2020	EPD	
3.1	Send out Property Owner Notification	15	5/20/2020	6/4/2020	NA	NA	Consultant	footprint is within ROW, letters are not required per kick-off meeting and meeting minutes.
3.2	Tribal Property Notification	0	5/20/2020	5/20/2020	NA	NA	Consultant	
4.1	Cultural Resources & Tribal Coordination Initiation	15	5/20/2020	6/4/2020	5/18/2020	5/18/2020	Consultant	**5/15/2020:** request will go out today.
4.2	Tribal Coordination 30 Day Waiting Period prior to Start of Specialist Studies	45	6/4/2020	7/19/2020	5/19/2020	6/18/2020	Consultant	
5.1	Cultural Resources Study by ODOT - includes SHPO Consultation	140	7/19/2020	12/6/2020	5/19/2020	3/1/2021	Consultant	**12/15/2020:** anticipate submittal to SHPO on 12/18/2020**. 1/13/2021**: submitted to SHPO/OAS **2/15/2021:**SHPO concurred, pending OAS and final Tribal Coordination
5.2	T&E & Wetland Studies	45	5/20/2020	7/4/2020	6/18/2020	8/3/2020	Consultant	
5.3	Hazardous Waste Studies	45	5/20/2020	7/4/2020	6/18/2020	8/4/2020	Consultant	
5.4	NRCS coordination	0	6/4/2020	6/4/2020	NA	NA	Consultant	Not needed. Within exisitng R/W
6.1	Receive Preliminary Plans	0	5/31/2020	5/31/2020	11/2/2020	11/2/2020	PMD	
6.2	Review Plans with Footprint	15	5/31/2020	6/15/2020	11/2/2020	11/2/2020	Consultant	**11/2/2020**: attended 30% PIH meeting
6.4	Request Relocation Plan	0	6/15/2020	6/15/2020	NA	NA	Consultant/NEPA PM	
6.5	Complete Relocation Plan	0	6/15/2020	6/15/2020	NA	NA	ODOT R/W	
6.6	Complete Socioeconomic Studies by Task Order if needed	0	6/15/2020	6/15/2020	NA	NA	ODOT R/W	
7.1	ODOT Review of Cultural Resources Studies	0	12/6/2020	12/6/2020	NA	NA	ODOT Specialists	
7.2	ODOT Review of Biological Studies	60	7/4/2020	9/2/2020	8/3/2020	8/31/2020	ODOT Specialists	
7.3	ODOT Review of Haz Waste Studies	60	7/4/2020	9/2/2020	8/4/2020	9/16/2020	ODOT Specialists	
8	USFWS	60	9/2/2020	11/1/2020	8/28/2020	8/31/2020	ODOT Specialists	
9	SHPO Coordination	0	12/6/2020	12/6/2020	NA	NA	ODOT Specialists	
10.1	Receive R/W & Utility Meeting Plans	0	9/30/2020	9/30/2020	2/9/2021	2/9/2021	PMD	
10.2	Review Revised Plans with Footprint	15	9/30/2020	10/15/2020	2/9/2021	2/26/2021	Consultant	
10.3	Attend Plan In Hand	15	10/15/2020	10/30/2020	2/24/2021	2/24/2021	Consultant	
11.1	Receive R/W Submittal Plans	0	11/30/2020	11/30/2020			PMD	
11.2	Review R/W Submittal Plans with Footprint	5	11/30/2020	12/5/2020			Consultant	
12.5	Draft CE Preparation	15	12/5/2020	12/20/2020			Consultant	
12.6	ODOT Review	15	12/20/2020	1/4/2021			ODOT Environmental Contract Manager	
12.7	Final CE Preparation	5	1/4/2021	1/9/2021			Consultant	
12.8	FHWA Review of CE Document	15	1/9/2021	1/24/2021			FHWA	
12.9	Distribution of CE Document	0	1/24/2021	1/24/2021			ODOT Environmental Contract Manager	

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
17530	0501 1622NX	W	84.80	ND

IDENTIFICATION

Bridge Description:

56ft.-70ft.-56ft. CONT. PLATE GIRDER SPANS, SK. 45 DEG. L.F.

1. State: Oklahoma
2. Division: Division 5
3. County: BECKHAM
4. City: Unknown
Admin Area: I-40 West (Div.5)
5a. On/Under: Route On Structure
5b. Kind of Hwy: Interstate Hwy
5c. Lvl of Srvc: Mainline
5d. Route No.: 00040
5e. Dir. Sufx: N/A (NBI)

7. Facility Carried : I-40
6. Feat. Intersect: TURKEY CREEK
9. Location: 16.3 MI E TEXAS ST. LINE
11. Mile Post: 16.217 mi
13. LRS Inv. / Sub Rte: 0501 N000(/ 04
16. Latitude: 35° 15' 31.72"
17. Longitude: 099° 43' 26.21"
98. Border Brdg: Unknown (P)
% Responsible: 0.00
99. Border Brdg #: Unknown

INSPECTION

Type	Insp. Req.	Insp. Done	Freq.	Insp. Date	Next Insp.
NBI:		1	24 months	2/26/2019	02/26/2021
FC:	N	0	NA	NA	NA
UW:	N	0	NA	NA	NA
OS:	N	0	NA	NA	NA

CLASSIFICATION

12.Base Hwy Net.: On Base Network
20. Toll Facility: On free road
21. Custodian: State
22. Owner: State
26. Function Class: 01 Rural Interstate
37. Historical Sig.: Not eligible for NRHP
100. Def. Hwy: On Interstate STRAHNE

101. Parallel Str.: Left of || bridge
102. Traffic Dir.: 1-way traffic
103. Temp. Str.: Not Applicable (P)
104. Hwy System: On the NHS
105. Fed Land Hwy: N/A (NBI)
110. Defense Hwy: On Interstate STRAHNE
112. NBIS Length: Long Enough

STRUCTURE TYPE AND MATERIALS

43a/b. Main Span: Steel Cont. / Stringer/Girder
44a/b. Appr. Span: Unknown / Unknown (P)
45. # of Main Spans: 3
46. # of Appr. Spans: 0
107. Deck Type: Concrete-Cast-in-Place
108a. Wearing Surface: Bituminous
108b. Membrane: Preformed Fabric
108c. Deck protection: Unknown

CONDITION

58.Deck: 6 Satisfactory
59.Sup.: 5 Fair
60.Sub: 5 Fair
62.Culvert: N/A (NBI)
61.Chan./Chan. Prot.: 6 Bank Slumping

Flowline Notes

Channel Bottom: 26.67 ft. Measurement taken north side, down stream, top of concrete. rail, center span.

AGE AND SERVICE

19. Detour Length: 0.1 mi
27. Year Built: 1969
28a/b. Lanes on/und: 2 / 0
29. ADT: 5,850
30. Year of ADT: 2017
42a/b. Type of Svc on/und: Highway / Waterway

106. Year Reconst.: -1
109. Truck ADT: 53%

LOAD RATING AND POSTING

31. Design Load: MS 18 (HS 20)
41. Post. Status: A Open, no restriction
70. Posting: 5 At/Above Legal Loads
Date Rated: 12/21/2010
63.Op / 65.Inv. Rating Meth.: 1 LF Load Factor / 1 LF Load Factor

	H	HS	3-3	EV3	SHV
64. Operating Rating (tons):	35.83	53.24	74.19	-1.00	0.00
66. Inventory Rating (tons):	21.50	31.86	44.53	-1.00	

GEOMETRIC DATA

10. Vert. Clearance: 99.99 ft
32. Appr Rwy Width: 38.00 ft
33. Median: Open median
34. Skew: 45.00°
35. Struct. Flared: No flare
47Horizontal Clr: 38.00 ft
48. Length Max Span: 69.88 ft
49. Struct. Length: 185.04 ft

50a. Curb/Sdwlk Width L: 0.00 ft
50b. Curb/Sdwlk Width R: 0.00 ft
51. Width Curb to Curb: 38.00 ft
52. Width Out to Out: 40.00 ft
Deck Area: 7,401.58 sq. ft
53. Min.Vert.Cl.Ovr Brg: 99.99 ft
54a.Min.Vt.Undclr.Ref.: N Feature not hwy c
54b. Min. Vert. Undclr.: 0.00 ft
55a. Min.Lat.Undclr.Ref: N Feature not hwy
55. Min.Lat.Underclr. R: 0.00 ft
56. Min.Lat.Underclr. L: 0.00 ft

APPRAISAL

36a. Brdg Rail: 1 Meets Standards
36b. Transition: 1 Meets Standards
36c. Appr. Rail: 1 Meets Standards
36d. Appr.Rail Ends: 1 Meets Standarc
67. Str Evaluation: 5 Above Min Tolera

68. Deck Geom.: 6 Equal Min Criteria
69. Vert./Horiz. Undclr: Not applicable (NB
71. Waterway Adeq: 7 Above Minimum
72. Appr. Alignment: 8 Equal Desirable Crit
113. Scour Critical: 8 Stable Above Footin

PROPOSED IMPROVEMENTS

94. Bridge Cost: $705,143
95. Roadway Cost: $1,163,486
96. Total Cost: $1,974,400
97. Yr.of Cost Est.: 2015

75. Type of Work: 31 Repl-Load Capacity
76. Lngth of Improvement: 283.2 ft
114. Future ADT: 9,360
115. Yr.of Future ADT: 2037

NAVIGATION DATA

38. Nav. Control: Permit Not Required
39. Vert. Clearance: 0.0 ft
40. Horiz. Clearance: 0.0 ft

111. Pier Protect.: 1 Not Required
116. Lift Bridge Vert. Clr.: 0.0 ft

OKLAHOMA ITEMS

200c. Temperature: 34
200d. Weather: Ptly Cloudy
201. Struc.Stl. ASTM Desig.: A36 / -1
202. Waterprf.Membrane: -1
Date Installed: 01/01/1901
203. Type Exp. Device: Pourable
_ _
204. Type of Railing: PTR-1 (square hand rail
205. Material Quantity: 6,470.00
208a. Type of Abutment: Skeleton
b. Type of Found.: Steel Piling
209. Type of Pier/Found.: 3 / No
No Piling/Drilled Shaft
210. Foundation Elev.: -1.00 -1.00 -1.00 -1.00 -1.00
211. Wear.Surf.Prot.Sys: None
Date Installed: 01/01/1901
213. Utilities Attached:

214a. Posted Weight Limit: NR
b. Posted Speed Limit: 70
c. Narrow/1way Brdg Sign: No
d. Vertical Clr. Sign: NA
Adv. Warning Sign: NA
e. Navigation Lights?: NA
Working/Not Working: NA
215. Overpass: INTERSTATE
221. Substr.Cond.(U/W):
222. Fill Over RCB:
223. Appr.Slab/Rwy Cond.: 2
225. Paint Type/Ovrct: Red Lead 3 Coat System
N/A
226. Date Painted: 1969
227. Paint Color: Silver
233. Deck Forming:
238. School Bus Rte.: Current & Desired route
240. Appr. Rwy Type.: Asphalt/Bituminous
243. Grdr Spacing/No.: /

244. Span Lengths:
245. Girder Depth:
246a. Type of Ovelay: AC Overlay
b. Overlay Thickness: 2.50
c. Overlay Date: 02/09/2007
d. Ovly Depth Changed >1": _
247. Protective Systems: Membrane
248. # Field Splices w/ Corrosion:
249. Scour Crit. POA Exists?: _
250. Headwall:
254. Thru Truss Type:
257a. OkiePROS Truck Routing: Yes
258. Plans w/Found.in ODOT File:
259. Scour Eval. in ODOT File:
263. Interchange at Intersection: No
264. Interstate Milepoint: 16.22

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
17530	0501 1622NX	W	84.80	ND

Inspection Date: 2/26/19 Dan Forbes

Invoice No.: I-40W2019 Inspected With:

BRIDGE NOTES:

Traffic Services: GETs, X-3s & Delineators --- Good 5 Steel I-Beams/Span Height - 38 in. Width - 10 in.

INSPECTION NOTES: 2/26/19

< none >

ELEMENT CONDITION STATE DATA

Elem. / Env	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4
12 / 4	Re Concrete Deck	sq.ft	7,030.00	0%	0.00	100%	7,030.00	0%	0.00	0%	0.00
510 / 4	Wearing Surfaces	sq.ft	7,030.00	100%	7,030.00	0%	0.00	0%	0.00	0%	0.00
-1											
107 / 4	Steel Opn Girder/Beam	ft	760.00	0%	0.00	59%	448.40	41%	311.60	0%	0.00
FX - Corrosion and deep pitting on all beams. See Element 356 Steel Fatigue Smart Flag Note.											
515 / 4	Steel Protective Coating	sq.ft	9,418.00	0%	0.00	0%	0.00	100%	9,418.00	0%	0.00
FX - Corrosion and deep pitting on all beams. See Element 356 Steel Fatigue Smart Flag Note.											
205 / 4	Re Conc Column	each	6.00	67%	4.00	33%	2.00	0%	0.00	0%	0.00
-1											
215 / 4	Re Conc Abutment	ft	108.20	55%	59.50	45%	48.70	0%	0.00	0%	0.00
-1											
234 / 4	Re Conc Pier Cap	ft	104.90	3%	3.10	45%	47.20	52%	54.60	0%	0.00
FX - Cracks and delaminations on both pier caps. Spall with exposed rebar approx. 6 in. x 1.5 in. on east pier cap. east side. above south column.											
301 / 4	Pourable Joint Seal	ft	110.00	0%	0.00	100%	110.00	0%	0.00	0%	0.00
-1											
311 / 4	Moveable Bearing	each	15.00	0%	0.00	100%	15.00	0%	0.00	0%	0.00
-1											
313 / 4	Fixed Bearing	each	5.00	0%	0.00	100%	5.00	0%	0.00	0%	0.00
-1											
321 / 4	Re Conc Approach Slab	sq.ft	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00
-1											
330 / 4	Metal Bridge Railing	ft	370.00	0%	0.00	100%	370.00	0%	0.00	0%	0.00
-1											
919 / 4	St.(Rail) Prot. Coat	(SF)	510.00	0%	0.00	100%	510.00	0%	0.00	0%	0.00
-1											
331 / 4	Re Conc Bridge Railing	ft	370.00	50%	185.00	30%	111.00	20%	74.00	0%	0.00
FX - Spalls with exposed reber on both rails.											
859 / 4	Soffit	(EA)	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
FX - Moderate spalls with exposed rebar on overhangs at joints above pier caps.											
865 / 4	St.Open Gird End(5Ft	(LF)	150.00	0%	0.00	0%	0.00	100%	150.00	0%	0.00
FX - Corrosion with section loss on all beam ends.											
870 / 4	Concrete Wingwall	(EA)	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00
909 / 4	Pourable Fix Jt.Seal	(LF)	110.00	0%	0.00	100%	110.00	0%	0.00	0%	0.00
956 / 4	St. Cracking/Fatigue	(SF)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
PX - Cracks at span #2^ web of steel I-beam^ west short diaphragm^ 2nd long diaphragm south fascia beam^ 1st long diaphragm north fascia beam not drilled. Span #3 long diaphragm^ north fascia beam^ has been drilled.											
963 / 4	Steel Section Loss SF	(EA)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
FX - Section loss on all beam ends.											

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
17529	0501 1622SX	W	84.80	ND

IDENTIFICATION

Bridge Description:
56ft.-70ft.-56ft. CONT. PLATE GIRDER SPANS, SK. 45 DEG. L.F.

1. State: Oklahoma
2. Division: Division 5
3. County: BECKHAM
4. City: Unknown
Admin Area: I-40 West (Div.5)
5a. On/Under: Route On Structure
5b. Kind of Hwy: Interstate Hwy
5c. Lvl of Srvc: Mainline
5d. Route No.: 00040
5e. Dir. Sufx: N/A (NBI)
7. Facility Carried : I-40
6. Feat. Intersect: TURKEY CREEK
9. Location: 16.3 MI E TEXAS ST. LINE
11. Mile Post: 16.217 mi
13. LRS Inv. / Sub Rte: 0501 0000 / 04
16. Latitude: 35° 15' 29.85"
17. Longitude: 099° 43' 27.28"
98. Border Brdg: Unknown (P)
% Responsible: 0.00
99. Border Brdg #: Unknown

INSPECTION

Type	Insp. Req.	Insp. Done	Freq.	Insp. Date	Next Insp.
NBI:		1	24 months	2/26/2019	02/26/2021
FC:	N	0	NA	NA	NA
UW:	N	0	NA	NA	NA
OS:	N	0	NA	NA	NA

CLASSIFICATION

12.Base Hwy Net.: On Base Network
20. Toll Facility: On free road
21. Custodian: State
22. Owner: State
26. Function Class: 01 Rural Interstate
37. Historical Sig.: Not eligible for NRHP
100. Def. Hwy: On Interstate STRAHNE
101. Parallel Str.: Right of || bridge
102. Traffic Dir.: 1-way traffic
103. Temp. Str.: Not Applicable (P)
104. Hwy System: On the NHS
105. Fed Land Hwy: N/A (NBI)
110. Defense Hwy: On Interstate STRAHNE
112. NBIS Length: Long Enough

STRUCTURE TYPE AND MATERIALS

43a/b. Main Span: Steel Cont. / Stringer/Girder
44a/b. Appr. Span: Unknown / Unknown (P)
45. # of Main Spans: 3
46. # of Appr. Spans: 0
107. Deck Type: Concrete-Cast-in-Place
108a. Wearing Surface: Bituminous
108b. Membrane: Preformed Fabric
108c. Deck protection: Unknown

CONDITION

58.Deck: 6 Satisfactory
59.Sup.: 5 Fair
60.Sub: 5 Fair
62.Culvert: N/A (NBI)
61.Chan./Chan. Prot.: 6 Bank Slumping

Flowline Notes
Channel Bottom: 26.58 ft. Measurement taken north side downstream, top of conc. rail, center span.

AGE AND SERVICE

19. Detour Length: 0.1 mi
27. Year Built: 1969
28a/b. Lanes on/und: 2 / 0
29. ADT: 5,950
30. Year of ADT: 2017
42a/b. Type of Svc on/und: Highway / Waterway
106. Year Reconst.: -1
109. Truck ADT: 53%

LOAD RATING AND POSTING

31. Design Load: MS 18 (HS 20)
41. Post. Status: A Open, no restriction
70. Posting: 5 At/Above Legal Loads
Date Rated: 12/21/2010
63.Op / 65.Inv. Rating Meth.: 1 LF Load Factor / 1 LF Load Factor

	H	HS	3-3	EV3	SHV
64. Operating Rating (tons):	35.83	53.24	74.19	-1.00	0.00
66. Inventory Rating (tons):	21.50	31.86	44.53	-1.00	

GEOMETRIC DATA

10. Vert. Clearance: 99.99 ft
32. Appr Rwy Width: 38.00 ft
33. Median: Open median
34. Skew: 45.00°
35. Struct. Flared: No flare
47Horizontal Clr: 38.00 ft
48. Length Max Span: 69.88 ft
49. Struct. Length: 185.04 ft
50a. Curb/Sdwlk Width L: 0.00 ft
50b. Curb/Sdwlk Width R: 0.00 ft
51. Width Curb to Curb: 38.00 ft
52. Width Out to Out: 40.00 ft
Deck Area: 7,401.58 sq. ft
53. Min.Vert.Cl.Ovr Brg: 99.99 ft
54a.Min.Vt.Undclr.Ref.: N Feature not hwy c
54b. Min. Vert. Undclr.: 0.00 ft
55a. Min.Lat.Undclr.Ref: N Feature not hwy
55. Min.Lat.Underclr. R: 0.00 ft
56. Min.Lat.Underclr. L: 0.00 ft

APPRAISAL

36a. Brdg Rail: 1 Meets Standards
36b. Transition: 1 Meets Standards
36c. Appr. Rail: 1 Meets Standards
36d. Appr.Rail Ends: 1 Meets Standarc
67. Str Evaluation: 5 Above Min Tolera
68. Deck Geom.: 6 Equal Min Criteria
69. Vert./Horiz. Undclr: Not applicable (NB
71. Waterway Adeq: 7 Above Minimum
72. Appr. Alignment: 8 Equal Desirable Crit
113. Scour Critical: 8 Stable Above Footin

PROPOSED IMPROVEMENTS

94. Bridge Cost: $705,143
95. Roadway Cost: $1,163,486
96. Total Cost: $1,974,400
97. Yr.of Cost Est.: 2015
75. Type of Work: 31 Repl-Load Capacity
76. Lngth of Improvement: 283.2 ft
114. Future ADT: 9,520
115. Yr.of Future ADT: 2037

NAVIGATION DATA

38. Nav. Control: Permit Not Required
39. Vert. Clearance: 0.0 ft
40. Horiz. Clearance: 0.0 ft
111. Pier Protect.: 1 Not Required
116. Lift Bridge Vert. Clr.: 0.0 ft

OKLAHOMA ITEMS

200c. Temperature: 37
200d. Weather: Ptly Cloudy
201. Struc.Stl. ASTM Desig.: A36 / -1
202. Waterprf.Membrane: -1
Date Installed: 01/01/1901
203. Type Exp. Device: Pourable
204. Type of Railing: PTR-1 (square hand rail
205. Material Quantity: 6,470.00
208a. Type of Abutment: Skeleton
b. Type of Found.: Steel Piling
209. Type of Pier/Found.: 3 / No
No Piling/Drilled Shaft
210. Foundation Elev.: -1.00 -1.00 -1.00 -1.00 -1.00
211. Wear.Surf.Prot.Sys: None
Date Installed: 01/01/1901
213. Utilities Attached:
214a. Posted Weight Limit: NR
b. Posted Speed Limit: 70
c. Narrow/1way Brdg Sign: No
d. Vertical Clr. Sign: NA
Adv. Warning Sign: NA
e. Navigation Lights?: NA
Working/Not Working: NA
215. Overpass: INTERSTATE
221. Substr.Cond.(U/W):
222. Fill Over RCB:
223. Appr.Slab/Rwy Cond.: 2
225. Paint Type/Ovrct: Red Lead 3 Coat System
N/A
226. Date Painted: 1969
227. Paint Color: Silver
233. Deck Forming:
238. School Bus Rte.: Current & Desired route
240. Appr. Rwy Type.: Asphalt/Bituminous
243. Grdr Spacing/No.: /
244. Span Lengths:
245. Girder Depth:
246a. Type of Ovelay: AC Overlay
b. Overlay Thickness: 2.50
c. Overlay Date: 02/09/2007
d. Ovly Depth Changed >1": _
247. Protective Systems: Membrane
248. # Field Splices w/ Corrosion:
249. Scour Crit. POA Exists?: _
250. Headwall:
254. Thru Truss Type:
257a. OkiePROS Truck Routing: Yes
258. Plans w/Found.in ODOT File:
259. Scour Eval. in ODOT File:
263. Interchange at Intersection: No
264. Interstate Milepoint: 16.22

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
17529	0501 1622SX	W	84.80	ND

Inspection Date: 2/26/19 Dan Forbes

Invoice No.: I-40W2019 Inspected With:

BRIDGE NOTES:

Traffic Services: GETs, X-3s & Delineators --- Good 5 Steel I-Beams/Span Height - 38 in. Width - 10 in.

INSPECTION NOTES: 2/26/19

< none >

ELEMENT CONDITION STATE DATA

Elem. / Env	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4
12 / 4	Re Concrete Deck	sq.ft	7,030.00	0%	0.00	100%	7,030.00	0%	0.00	0%	0.00
	Deck being overlaid at time of inspection.										
510 / 4	Wearing Surfaces	sq.ft	7,030.00	100%	7,030.00	0%	0.00	0%	0.00	0%	0.00
-1											
107 / 4	Steel Opn Girder/Beam	ft	761.10	0%	0.00	73%	555.60	27%	205.50	0%	0.00
	FX - Corrosion with deep pitting on all beams. See Element 356 Steel Fatigue Smart Flag Note.										
515 / 4	Steel Protective Coating	sq.ft	9,418.00	0%	0.00	100%	9,418.00	0%	0.00	0%	0.00
	FX - Corrosion with deep pitting on all beams. See Element 356 Steel Fatigue Smart Flag Note.										
205 / 4	Re Conc Column	each	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00
-1											
215 / 4	Re Conc Abutment	ft	108.30	75%	81.20	25%	27.10	0%	0.00	0%	0.00
-1											
234 / 4	Re Conc Pier Cap	ft	105.00	80%	84.00	20%	21.00	0%	0.00	0%	0.00
-1											
301 / 4	Pourable Joint Seal	ft	110.00	100%	110.00	0%	0.00	0%	0.00	0%	0.00
-1											
311 / 4	Moveable Bearing	each	15.00	0%	0.00	100%	15.00	0%	0.00	0%	0.00
-1											
313 / 4	Fixed Bearing	each	5.00	0%	0.00	100%	5.00	0%	0.00	0%	0.00
-1											
321 / 4	Re Conc Approach Slab	sq.ft	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00
-1											
330 / 4	Metal Bridge Railing	ft	370.00	0%	0.00	100%	370.00	0%	0.00	0%	0.00
-1											
919 / 4	St.(Rail) Prot. Coat	(SF)	510.00	0%	0.00	100%	510.00	0%	0.00	0%	0.00
-1											
331 / 4	Re Conc Bridge Railing	ft	370.00	48%	177.60	42%	155.40	10%	37.00	0%	0.00
	FX - Spalls with exposed rebar on bridge rail.										
859 / 4	Soffit	(EA)	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
	FX - Spalls with exposed rebar on overhangs at joints above pier caps.										
865 / 4	St.Open Gird End(5Ft	(LF)	150.00	0%	0.00	0%	0.00	100%	150.00	0%	0.00
	FX - Corrosion with deep pitting on all beam ends.										
870 / 4	Concrete Wingwall	(EA)	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00
909 / 4	Pourable Fix Jt.Seal	(LF)	110.00	100%	110.00	0%	0.00	0%	0.00	0%	0.00
956 / 4	St. Cracking/Fatigue	(SF)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
	PX - Cracks in web of steel I-beam at span #1 long diaphragm^ south fascia beam^ 1st long diaphragm north fascia beam^ not drilled. Span #2^ 2nd long diaphragm^ south fascia beam^ drilled										
963 / 4	Steel Section Loss SF	(EA)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
	FX - Section loss on all beam ends.										

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
14138	0501 1998SX	W	95.90	ND

IDENTIFICATION

Bridge Description: 3-50ft. I-BEAM SPANS, SK. 30 DEG. L.F

1. State: Oklahoma
2. Division: Division 5
3. County: BECKHAM
4. City: Unknown
Admin Area: I-40 West (Div.5)
5a. On/Under: Route On Structure
5b. Kind of Hwy: Interstate Hwy
5c. Lvl of Srvc: Mainline
5d. Route No.: 00040
5e. Dir. Sufx: N/A (NBI)

7. Facility Carried : I-40
6. Feat. Intersect: SAND CREEK
9. Location: 12.6 MI. E. S.H. 30
11. Mile Post: 19.976 mi
13. LRS Inv. / Sub Rte: 0501 0000 / 05
16. Latitude: 35° 15' 42.45"
17. Longitude: 099° 39' 29.91"
98. Border Brdg: Unknown (P)
% Responsible: 0.00
99. Border Brdg #: Unknown

INSPECTION

Type	Insp. Req.	Insp. Done	Freq.	Insp. Date	Next Insp.
NBI:		1	24 months	2/27/2019	02/27/2021
FC:	N	0	NA	NA	NA
UW:	N	0	NA	NA	NA
OS:	N	0	NA	NA	NA

CLASSIFICATION

12.Base Hwy Net.: On Base Network
20. Toll Facility: On free road
21. Custodian: State
22. Owner: State
26. Function Class: 01 Rural Interstate
37. Historical Sig.: Not eligible for NRHP
100. Def. Hwy: On Interstate STRAHNE

101. Parallel Str.: Right of || bridge
102. Traffic Dir.: 1-way traffic
103. Temp. Str.: Not Applicable (P)
104. Hwy System: On the NHS
105. Fed Land Hwy: N/A (NBI)
110. Defense Hwy: On Interstate STRAHNE
112. NBIS Length: Long Enough

STRUCTURE TYPE AND MATERIALS

43a/b. Main Span: Steel / Stringer/Girder
44a/b. Appr. Span: Unknown / Unknown (P)
45. # of Main Spans: 3
46. # of Appr. Spans: 0
107. Deck Type: Concrete-Cast-in-Place
108a. Wearing Surface: Epoxy Overlay
108b. Membrane: Unknown
108c. Deck protection: Unknown

CONDITION

58.Deck: 6 Satisfactory
59.Sup.: 7 Good
60.Sub: 6 Satisfactory
62.Culvert: N/A (NBI)
61.Chan./Chan. Prot.: 7 Minor Damage

Flowline Notes

Channel Bottom: 25.67 ft. Measurement taken top of conc. rail, center span, north side.

AGE AND SERVICE

19. Detour Length: 0.1 mi
27. Year Built: 1958
28a/b. Lanes on/und: 2 / 0
29. ADT: 6,650
30. Year of ADT: 2017
42a/b. Type of Svc on/und: Highway / Waterway

106. Year Reconst.: 1969
109. Truck ADT: 53%

LOAD RATING AND POSTING

31. Design Load: MS 18 (HS 20)
41. Post. Status: A Open, no restriction
70. Posting: 5 At/Above Legal Loads
Date Rated: 04/24/2014
63.Op / 65.Inv. Rating Meth.: 1 LF Load Factor / 1 LF Load Factor

	H	HS	3-3	EV3	SHV
64. Operating Rating (tons):	41.00	53.60	93.90	-1.00	0.00
66. Inventory Rating (tons):	24.60	32.00	56.20	-1.00	

GEOMETRIC DATA

10. Vert. Clearance: 99.99 ft
32. Appr Rwy Width: 38.00 ft
33. Median: Open median
34. Skew: 30.00°
35. Struct. Flared: No flare
47Horizontal Clr: 38.00 ft
48. Length Max Span: 49.87 ft
49. Struct. Length: 150.92 ft

50a. Curb/Sdwlk Width L: 0.00 ft
50b. Curb/Sdwlk Width R: 0.00 ft
51. Width Curb to Curb: 38.00 ft
52. Width Out to Out: 40.00 ft
Deck Area: 6,036.75 sq. ft
53. Min.Vert.Cl.Ovr Brg: 99.99 ft
54a.Min.Vt.Undclr.Ref.: N Feature not hwy c
54b. Min. Vert. Undclr.: 0.00 ft
55a. Min.Lat.Undclr.Ref: N Feature not hwy
55. Min.Lat.Underclr. R: 0.00 ft
56. Min.Lat.Underclr. L: 0.00 ft

APPRAISAL

36a. Brdg Rail: 1 Meets Standards
36b. Transition: 1 Meets Standards
36c. Appr. Rail: 1 Meets Standards
36d. Appr.Rail Ends: 1 Meets Standarc
67. Str Evaluation: 6 Equal Min Criteria

68. Deck Geom.: 6 Equal Min Criteria
69. Vert./Horiz. Undclr: Not applicable (NB
71. Waterway Adeq: 7 Above Minimum
72. Appr. Alignment: 7 Above Min Criteria
113. Scour Critical: 8 Stable Above Footin

PROPOSED IMPROVEMENTS

94. Bridge Cost: $642,583
95. Roadway Cost: $1,060,262
96. Total Cost: $1,799,232
97. Yr.of Cost Est.: 2015

75. Type of Work: 31 Repl-Load Capacity
76. Lngth of Improvement: 254.2 ft
114. Future ADT: 10,640
115. Yr.of Future ADT: 2037

NAVIGATION DATA

38. Nav. Control: Permit Not Required
39. Vert. Clearance: 0.0 ft
40. Horiz. Clearance: 0.0 ft

111. Pier Protect.: 1 Not Required
116. Lift Bridge Vert. Clr.: 0.0 ft

OKLAHOMA ITEMS

200c. Temperature: 39
200d. Weather: Clear
201. Struc.Stl. ASTM Desig.: -1 / -1
202. Waterprf.Membrane: -1
Date Installed: 01/01/1901
203. Type Exp. Device: Pourable
204. Type of Railing: PTR-1 (square hand rail
205. Material Quantity: 195.00
208a. Type of Abutment: Skeleton
b. Type of Found.: Steel Piling
209. Type of Pier/Found.: B / Yes
Steel Piling
210. Foundation Elev.: -1.00 -1.00 -1.00 -1.00 -1.00
211. Wear.Surf.Prot.Sys: None
Date Installed: 01/01/1901
213. Utilities Attached:

214a. Posted Weight Limit: NR
b. Posted Speed Limit: 70
c. Narrow/1way Brdg Sign:
d. Vertical Clr. Sign: NA
Adv. Warning Sign: NA
e. Navigation Lights?: NA
Working/Not Working: NA
215. Overpass: INTERSTATE
221. Substr.Cond.(U/W):
222. Fill Over RCB:
223. Appr.Slab/Rwy Cond.: 3
225. Paint Type/Ovrct: Red Lead 3 Coat System
N/A
226. Date Painted: 0906
227. Paint Color: Silver
233. Deck Forming:
238. School Bus Rte.: Current & Desired route
240. Appr. Rwy Type.: Asphalt/Bituminous
243. Grdr Spacing/No.: /

244. Span Lengths:
245. Girder Depth:
246a. Type of Ovelay: AC Overlay
b. Overlay Thickness: 1.50
c. Overlay Date: 02/20/2007
d. Ovly Depth Changed >1": _
247. Protective Systems: _ _ _ _ _
248. # Field Splices w/ Corrosion:
249. Scour Crit. POA Exists?: _
250. Headwall:
254. Thru Truss Type:
257a. OkiePROS Truck Routing: Yes
258. Plans w/Found.in ODOT File:
259. Scour Eval. in ODOT File:
263. Interchange at Intersection: No
264. Interstate Milepoint: 19.98

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
14138	0501 1998SX	W	95.90	ND

Inspection Date: 2/27/19 Dan Forbes

Invoice No.: I-40W2019 Inspected With:

BRIDGE NOTES:

Traffic Services: GETs, X-3s & Delineators --- Good 6 Steel I-Beams/Span Height - 36 in. Width - 12 in. 1 I-Beam/Span Height - 23.75 in. Width - 9 in.

INSPECTION NOTES: 2/27/19

Water pipeline under bridge in channel in east side of creek bank.

ELEMENT CONDITION STATE DATA

Elem. / Env	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4
12 / 4	Re Concrete Deck	sq.ft	5,738.00	60%	3,442.80	40%	2,295.20	0%	0.00	0%	0.00
	FX - Deck has patched areas and polymer overlay is pealing in various locations.										
510 / 4	Wearing Surfaces	sq.ft	5,738.00	0%	0.00	100%	5,738.00	0%	0.00	0%	0.00
-1											
107 / 4	Steel Opn Girder/Beam	ft	839.90	100%	839.90	0%	0.00	0%	0.00	0%	0.00
	Beams painted 2007.										
515 / 4	Steel Protective Coating	sq.ft	5,362.00	100%	5,362.00	0%	0.00	0%	0.00	0%	0.00
	Beams painted 2007.										
210 / 4	Re Conc Pier Wall	ft	72.00	97%	69.80	0%	0.00	3%	2.20	0%	0.00
	FX - Spall with exposed rebar on south end of east pier wall.										
215 / 4	Re Conc Abutment	ft	78.70	90%	70.70	10%	8.00	0%	0.00	0%	0.00
-1											
227 / 4	Re Conc Pile	(EA)	9.00	100%	9.00	0%	0.00	0%	0.00	0%	0.00
	FX - Concrete columns exposed under both pier walls.										
231 / 4	Steel Pier Cap	ft	14.00	100%	14.00	0%	0.00	0%	0.00	0%	0.00
-1											
234 / 4	Re Conc Pier Cap	ft	78.70	91%	71.70	9%	7.00	0%	0.00	0%	0.00
-1											
301 / 4	Pourable Joint Seal	ft	180.00	100%	180.00	0%	0.00	0%	0.00	0%	0.00
-1											
310 / 4	Elastomeric Bearing	each	22.00	100%	22.00	0%	0.00	0%	0.00	0%	0.00
-1											
311 / 4	Moveable Bearing	each	18.00	100%	18.00	0%	0.00	0%	0.00	0%	0.00
	Bearings have been painted.										
313 / 4	Fixed Bearing	each	6.00	100%	6.00	0%	0.00	0%	0.00	0%	0.00
	Bearings have been painted.										
321 / 4	Re Conc Approach Slab	sq.ft	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00
-1											
330 / 4	Metal Bridge Railing	ft	302.00	100%	302.00	0%	0.00	0%	0.00	0%	0.00
-1											
919 / 4	St.(Rail) Prot. Coat	(SF)	375.00	100%	375.00	0%	0.00	0%	0.00	0%	0.00
-1											
331 / 4	Re Conc Bridge Railing	ft	302.00	75%	226.50	25%	75.50	0%	0.00	0%	0.00
-1											
859 / 4	Soffit	(EA)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
-1											
865 / 4	St.Open Gird End(5Ft	(LF)	210.00	100%	210.00	0%	0.00	0%	0.00	0%	0.00
	Beam ends painted 2007.										
870 / 4	Concrete Wingwall	(EA)	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00
961 / 4	Scour SF	(EA)	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
	FX - Columns exposed under both pier walls										

OKLAHOMA Transportation

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROJECT STATUS SYSTEM

Edit PROJECT Cancel

Job Piece: 3169204

Status Report: ☑ AP Project: ☐ VE Project: ☐ Calculated Status: Prepare NEPA Document

Production Targets	Planned Finish	Actual Finish	Status	Cond
Reconnaissance Data	11/01/2017		N/A	
Project Initiation	01/11/2018	06/30/2016	Completed	
Design Resource	MacArthur Associated Consultants, LLC			
EC Solicitation				
EC Contract		EC No		
Survey	05/11/2020	11/04/2020	Completed	SWO 5272(1)
Hydraulics	08/11/2020	08/12/2020	Completed	
Preliminary Field Review	06/30/2020	11/02/2020	Completed	
RW & Utility Meeting	02/28/2021	02/24/2021	Completed	
Plans Submitted to R/W	03/30/2021	04/01/2021	Completed	
NEPA Document	05/30/2021		On-Time	
R/W Phase		Mapping		
Legal Entry	04/15/2021		N/A	
Prepare Traffic Plans	07/30/2021	09/25/2020	Completed	
Final Field Review	08/30/2021	10/12/2020	Completed	
Utility Out	04/15/2021	11/12/2020	Completed	
404 Permit	10/01/2022		On-Time	
Plans Complete	09/15/2021		On-Time	
Ready to Let	11/30/2022		On-Time	

Edit Resource and Comments

Utility Information (from the Estimated Comp Date out of Utility Relocation system)

Latest Date
-

Project Information

JP No.	Proj. ID	County	Div.	Maint.	HWY	Work Desc
3169204	J3-1692(004)	05 BECKHAM	5	5	IS040	11 BRIDGE & APPROACHES

Project Legislative Districts

Ctrl.	Start	End	Lgth	Cong	Senate	House
001	16.200	16.400	0.200	3	26	055

Project Location

Location
I-40: AT TURKEY CR (EAST & WEST BOUND) AND SAND CR EAST BOUND, LOCATED 16.2 & 19.9 MILES EAST OF THE TEXAS STATE LINE.

Project Status

Status	8Year CWP	NHS Sys.	FHWA Oversight	Comm Appr.	Fhwa Auth	Auth FFY	Let Date	FFY	Award Date	RW JP No.	RW Let
Programmed	Yes	Yes		09/2015	-		NoDate	2025	NoDate	-	-

STIP & NEPA Information

STIP FY	STIP Page	Pub Date	ODOT Appr.	TIP FY	TIP Page	MPO Appr.	NEPA Type	NEPA Appr	NEPA Re-Eval
		-	-			-	PCE	-	//

Project Budget

Award Exist	Advanced	Federal	State	Other	Total
N	0.00	2,109,856.00	6,777,464.00	0.00	8,887,320.00

ODOT/FHWA Resources Assigned

PMD	Field	FHWA	NEPA	Survey	Materials	Roadway	Bridge	Traffic	RW	Rail	Nepa Consultant
Schultz	Almquist	Bahavar	Golden	D. Williams	-	Woods	Molla-Esmail	-	-	-	000000000

Comments

no data found

Bridge Information

Proposed Bridge

Bridge Information Proposed Bridge

NBI#	Status	Co	Ctl	Milept	Sd
14138	State Bridge	05	001	19980	
17529	State Bridge	05	001	16220	
17530	State Bridge	05	001	16220	
1-3					

269768 en

OKLAHOMA Transportation

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROJECT STATUS SYSTEM

Logout

Project

Edit Original NEPA Document

Cancel Save NEPA Document

NEPA Document Preparation

NEPA On Hold Memo Sent Date	
R/W Submittal Plans Recd	
Draft Document Target Date	
Draft Document Actual Date	

CE Review

Draft CE Review by ODOT	
Comments To Consultant	
Revised CE from Consultant	
CE to FHWA (if applicable)	
Date of FHWA / ODOT Approval of CE	
CE Distribution	

EA Review

Draft EA Review by ODOT	
Draft EA Review by FHWA	
Comments to Consultant	
Revised EA from Consultant	
Draft EA to FHWA	
Draft EA Approval by FHWA	
Final EA from Consultant	
Final EA Reviewed	
Final EA to FHWA	
FONSI from FHWA	
FONSI Distribution	

NEPA Document Navigation

- Recon
- Section 4F
- Public Involvement
- Re-Evaluation

Edit Original NEPA Document

Cancel Save NEPA Document

Job Piece 3169204

Initial

Initiation Report from PMD	
Footprint Review Prior to Start of Studies	
Consultant Notice To Proceed	
Property Owner Notification	
BLM Notification	
BIA Notification	
Consultant CR/Tribal Initiation	

Studies

Farmland NRCS Requested	
Farmland NRCS Complete	
CR Studies Requested	07/19/2020
CR Studies Due	12/06/2020
CR Studies Recd	
Biological Studies Requested	05/20/2020
Biological Studies Due	09/02/2020
Biological Studies Recd	08/31/2020
Meeting with 404 Permit Coordinator for Delineation	
Haz Waste Studies Requested	05/20/2020
Haz Waste Studies Due	09/02/2020
Haz Waste Studies Recd	09/16/2020
Noise Studies Requested	
Noise Studies Due	
Noise Studies Recd	
Relo Studies Requested	
Relo Studies Due	
Relo Studies Recd	

269768 en

CE Document Checklist (Updated 11/24/2020)

Should be included in the Other Section of all projects

JP No:	31692(04)	Prepared by	K. Fiddler
County:	Beckham	Checked by	A. Aikman
Date Checked:			4/23/2021
No	Description		Checked?
1	**Project Information**		
1.1	Correct Project No? (Check against Oracle info)		X
1.2	Correct NBI No.? - Check against initiation report, Oracle, and plans		X
1.3	Location No. for County projects only?		NA
1.4	Correct Field District and County?		X
1.5	Correct Project Description? (Check against Oracle info and make sure it matches project extent on the plans. If it doesn't match, get the PM to fix the Oracle)		X
1.6	Construction Program/STIP/TIP Checked?		X
2	**Existing Conditions**		
2.1	If it is a roadway project, is the roadway described first, then mention any bridges mentioned within the project extent		X
2.2	Are the existing bridge type (span or box), width for span bridges (or length for box) and structural conditions for each bridge correct ? Check against Bridge Report.		X
2.3	Correct approach roadway width?		X
2.4	Any roadway geometric deficiencies?		NA
2.5	Traffic data from plans - existing and pojected?		X
3	**Purpose & Need**		

3.1	Why is the project needed (NEVER what is proposed – REPLACE BRIDGE or WIDEN ROADWAY or ADD SHOUDERS is NOT the Purpose & Need)	X
4	**Alternatives & Proposed improvement**	
4.1	Proposed roadway and bridge width	X
4.2	Existing or offset alignment – reason for offset	X
4.3	Replacement, Rehab, Removal or new bridge where there was none. Removal of bridge or wideing of bridge.	X
4.4	Road open to traffic during construction (If there is a shoofly, it is considered open to traffic. Closed to traffic is only if there is a posted detour on a different route)	X
4.5	Mention if everthing is within existing R/W	X
4	**Public Involvement**	
4.1	Check appropriate public involvement box. Include Road Closure letter, Early Coordination letters, Public Notices and Public/Stakeholder Meeting material in the appropriate Appendixes	X
5	**CE Questions & Studies**	
5.1	Is the NEPA on Hold Memo included?	NA
5.2	Are the R/W submittal or Final Plans with DATE STAMP included in the Plans & Footprint Section?	X
5.3	Did the preparer verify that the plans were within study limits?	X
5.4	Is the offset alignment far enough away so that R/W not immediately adjacent to existing R/W is needed?	NA
5.5	Are the following early coordination letters and responses included in Early oordination setion? (1) Property owner letter with list of property owners or letter from County Commissioner with list of property owners, (2) BLM Letter and for state projects, (3) BIA Letters, (4) Small City Letter, (5) Department of Mines	NA

5.6	Were there Tribal or Federal properties identified (from plans and recon data)? If there are tribal, include all the tribal consent letters, signed permission letters and any other related permission information. If there are federal properties identified, include complete coordination information. If there are federal properties identified as a 4(f) property, this information will be included in the 4(f) appendix instead. If there are BIA properties, the project is in Osage Nation or there are federal properites, it will be an ICE.	NA
5.7	Are the studies arranged in the same order as the CE Questions?	X
5.8	CR Report complete & arranged in the chronological order from latest to oldest- includes letter to and from SHPO & OAS, CR report, Initial letters to and responses from Tribes, Final letters to and responses from Tribes? Do the CR Notes match the report? Are the notes checked in	X
5.9	Have the 4(f) properties been identified (from Recon, county map, and plans)? If there are 4(f) properties, is the complete Section 4(f) coordination included in the Section 4(f) section?	NA
5.10	Was Section 6(f) properties verified with Dept. of Tourism for any parks?	NA
5.11	Is a noise study needed (offset alignments, capacity increase, or major vertical grade change)? If yes, is it included in the Noise Section and any commitments listed in the CE	NA
5.12	Is the biological studies included and any notes for species included in the commitments.	X
5.13	Was there a Preliminary 404 Review done by the 404 permit coordinator for any projects which had > 0.1 streams or > 0.5 AC of wetlands in the initial study? Is the 404 permit box checked (should be yes for all projects involving a bridge crossing a blue line).	X
5.14	Does the project involve navigable waters (check USACE Section 10 waters and then verify wih Coastguard) and requires Coastguard coordination? If so, it it listed in the Commitment?	NA
5.15	Does the project involve one of the scenic rivers or streams (Check Oklahoma Scenic Rivers website)? If so, include coordination with Scenic Rivers in the "Other Section"	NA

5.16	Was there coordination done with NRCS for projects involving new R/W and not in an urban area? Letter to NRCS, AD-1066 Form completed partially (if no response from NRCS) or completely (if NRCS completed their portion), and statement of nor response from NRCS if applicable	NA
5.17	Is the project location circled on the FEMA map or printout from FEMA site saying no map is available included? If the project is in zone A-E, is the coordination with the Designer to determine the need for map revision included?	X
5.18	Is the haz waste note mentioned and included at the end of the CE if applicable? If the haz waste specialist required plans to complete studies, were the plans provided and a revised memo obtained?	X
5.19	Were the plans checked for road closure? Include sheets (Round Robin) which say road will not be closed for bridge joint, paint, etc. projects, letters sent and any responses. If there is road closure, were letters sent	X
5.20	Does the "Other Section" include (1) initiation report for state projects or NEPA Checklist for Local Govt. projects, (2) Any additional project coordination, (3) bridge reports, (4) Project Oracle information sheet with NEPA document information, (5) Completed CE Review Checklist	X