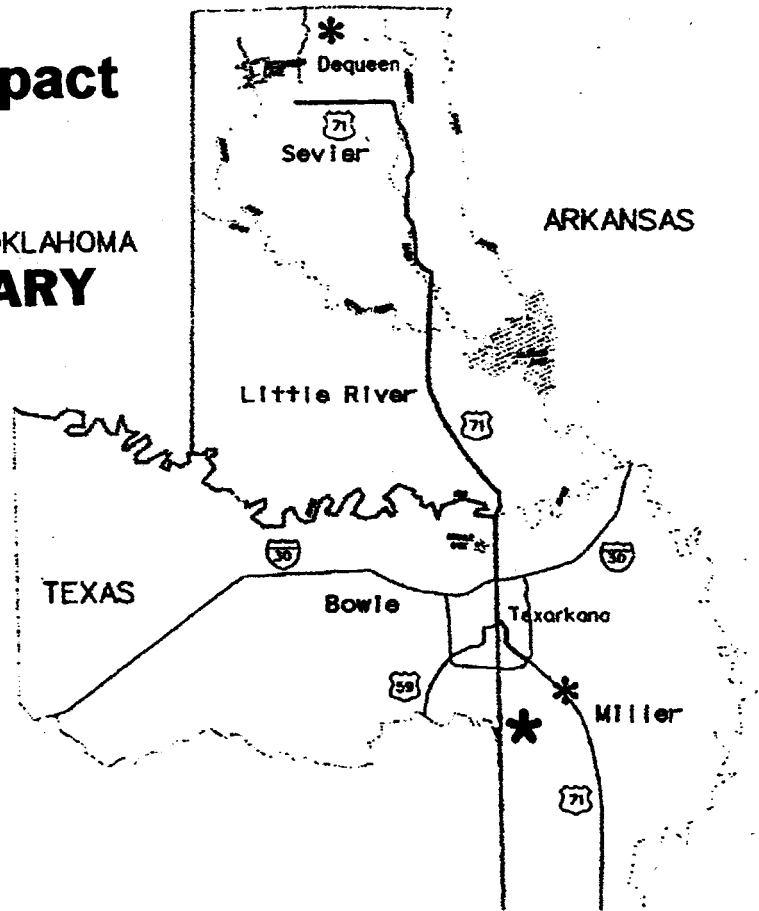


# Final Environmental Impact Statement

## EXECUTIVE SUMMARY

September 2001



## U.S. Highway 71 - Texarkana, Arkansas, to DeQueen, Arkansas and Texarkana Northern Loop

*Little River, Miller, and Sevier Counties, Arkansas  
Bowie County, Texas*

Federal Highway Administration

Arkansas State Highway and  
Transportation Department



Texas Department  
of Transportation



**ES.0        SUMMARY**

**ES.1        DESCRIPTION OF THE ACTION**

This document addresses the proposed relocation of US Highway 71 (US71) between Texarkana, Arkansas and DeQueen, Arkansas. This Final Environmental Impact Statement (FEIS) presents the social, economic, engineering and environmental consequences of the selected highway alignment.

The project's southern terminus is near the southeast corner of the proposed Texarkana South Loop (State Highway (SH) 245 and Loop 151), where the interchange for the proposed US71 freeway to Louisiana is being constructed. The project's northern terminus is approximately 5 km (3 mi) east of DeQueen, Arkansas along US70/ US71, joining with the selected alternative for the US71 DeQueen to Interstate 40 project. On the north side of Texarkana, the new facility will utilize sections of existing and proposed SH 245 and Loop 151 to reach Interstate Highway 30 (IH-30). The new highway will be a 4-lane, divided, full control of access facility built to Interstate standards with an approximate right-of-way width of 91 meters (m) (300 feet (ft)). The design flood for the sizing of floodplain embankments is the 50-year event. This project does not assume 100-year levels of levee protection for roadway planning purposes, but lesser levels of flood protection are currently provided by the Miller County and Bowie County Levees on the south side of the Red River floodplain.

A Draft Environmental Impact Statement (DEIS) for the US71 Texarkana to DeQueen project was circulated in February 1997, followed by Public Hearings in Arkansas and a Public Workshop in Texas in April 1997. A Supplemental DEIS was prepared to address the following four items:

- (1) to document the two Best Few Alternatives (C-10 and D-18) identified from among the eighteen final study alternatives in the 1997 DEIS,
- (2) to document the development of new Texarkana Northern Loop alternatives added to the project after the 1997 Public Hearings, and describes the environmental analysis of these alternatives to the same level of detail as contained in the 1997 DEIS, and
- (3) to identify a preferred alternative for the project from Texarkana to DeQueen.
- (4) to provide alternative comparison information and potential jurisdictional wetland impact data for the preferred alternative from Texarkana to DeQueen. This information is provided for use by the U.S. Army Corps of Engineers (COE) Little Rock District in their Section 404 Permitting process.

After their adoption into the project, the Northern Loop Alternatives were studied to a level of detail equal to that in the 1997 DEIS. With the introduction of new alternatives that were not previously documented in the 1997 DEIS, a Supplemental DEIS was prepared to formally document the new alternatives. The Supplemental DEIS was prepared and submitted in December 1999. Public Hearings were held in late February and March of 2000.

The proposed US71 Texarkana Northern Loop Alternatives were added to the project in response to comments received on the DEIS and Public Hearings/Public Workshops in 1997. The US71 Texarkana Northern Loop concept combines the southern portions of each of the two Best Few Alternatives south of the Red River, and adds an east-west connector between these two alignments on the Red River floodplain to form a northern loop for Texarkana. The evaluation of the Texarkana Northern Loop includes an additional crossing of the Red River from a central point on the loop between Summerhill Road (Farm to Market Road (FM) 1397(E)) and US71, as well as one additional alignment for the west side of the Northern Loop through the Pleasant Grove area of northwest Texarkana, Texas, and two additional alignments for the east side of the Northern Loop on the east side of Texarkana, Arkansas.

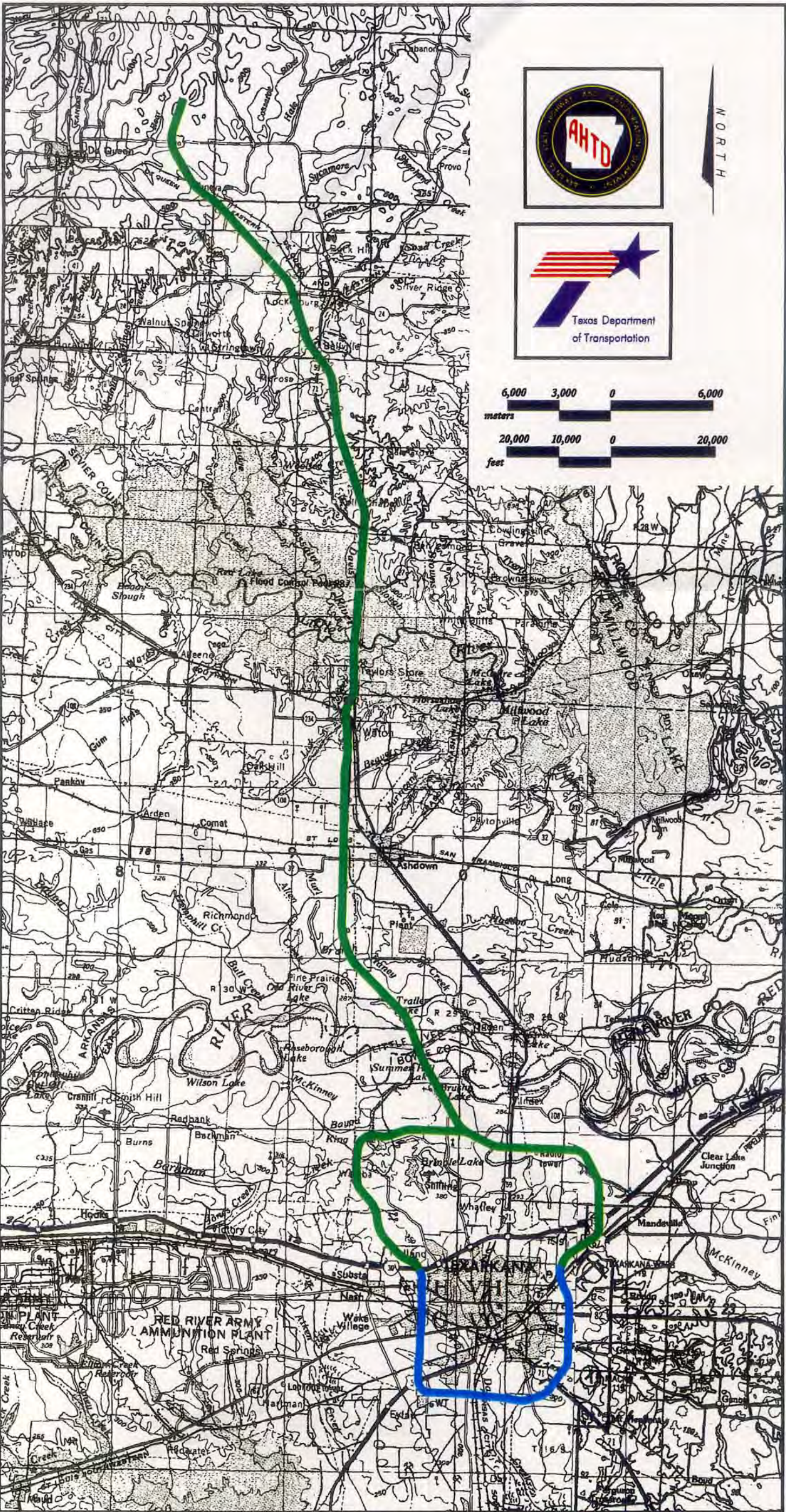
**Selected Alternative.** Figures ES-1 and ES-1(a) - 1(e) illustrate the selected alternative for the project. The selected alternative includes the portions of the Northern Loop, the segment from the northern loop which runs west of Ashdown to Wilton and the section north of the Little River connecting to just east of De Queen. The preferred alternate was named the selected alignment in May 2000 by the project's Technical Advisory Committee (TAC) composed of representatives from Arkansas State Highway and Transportation Department (AHTD), Texas Department of Transportation (TXDOT), Arkansas and Texas Divisions of Federal Highway Administration (FHWA) and the local Metropolitan Planning Organization (MPO).

## **Project Need**

This project is one section of an ultimate freeway facility connecting Kansas City, Missouri, and Shreveport, Louisiana. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) designated US71 to be High Priority Corridor #1 in the National Highway System (NHS) and allowed the Secretary of Transportation to use procedures, to the maximum extent feasible, to accelerate this project (Intermodal Surface Transportation Efficiency Act Title 1, Part A, Section 1105). This project would complete the southern 80 km (50-mi) of the proposed freeway between IH-30 and IH-40, an important part of the entire Kansas City, Missouri to Shreveport, Louisiana location alignment (and ultimately to New Orleans).

Existing US71 is a 2-lane highway for most of its length from Texarkana to DeQueen, Arkansas. The section from Texarkana to Ashdown, Arkansas is a mixture of 4-lane divided and 5-lane undivided facility with no control of access. The remainder of the existing facility is predominantly two lanes, with numerous grade and curve deficiencies which, along with development-induced congestion, at-grade intersections, and traffic signals in the towns of Ashdown, Lockesburg, and DeQueen, keep this facility from satisfying the need for a high quality through facility. Traffic projections show that without improvements, service along the existing facility will continue to deteriorate.

Project Purposes #1 through #6, identified in Section 1, are associated with High Priority Corridor #1 needs and are addressed by freeway improvements linking DeQueen and Texarkana. Project Purpose #7 recognizes the need to connect with High Priority Corridor #1 southeast of Texarkana (US71(S)), and High Priority Corridor #20 southwest of Texarkana (US59(S)). The Northern Loop portion of the project meets this need by splitting US71(N) traffic north

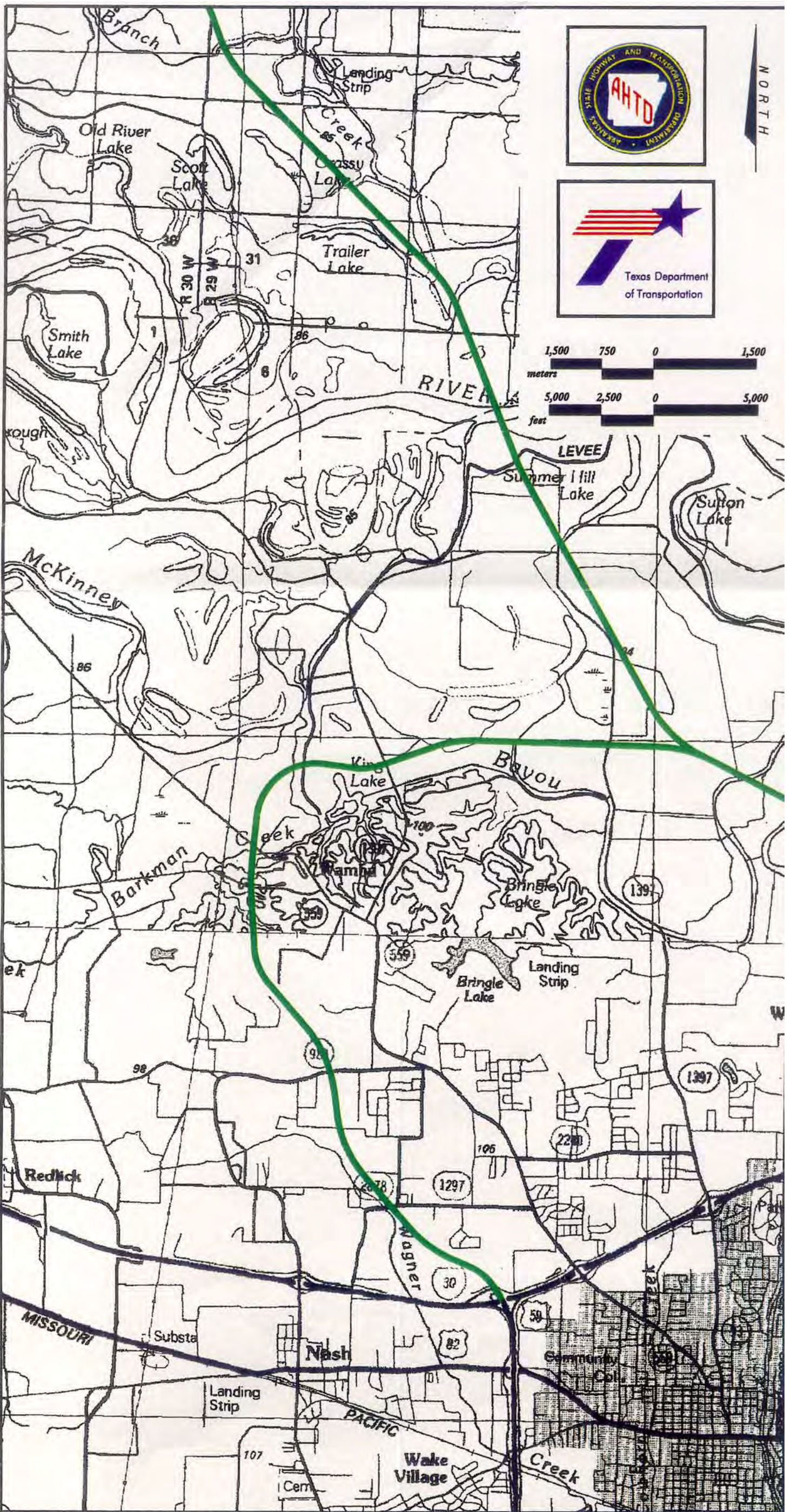


**LEGEND**

- SELECTED ALTERNATIVE
- EXIST./PROP. SOUTH LOOP

**FEIS... US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-1  
US 71 TEXARKANA TO DeQUEEN  
SELECTED ALTERNATIVE**



NORTH

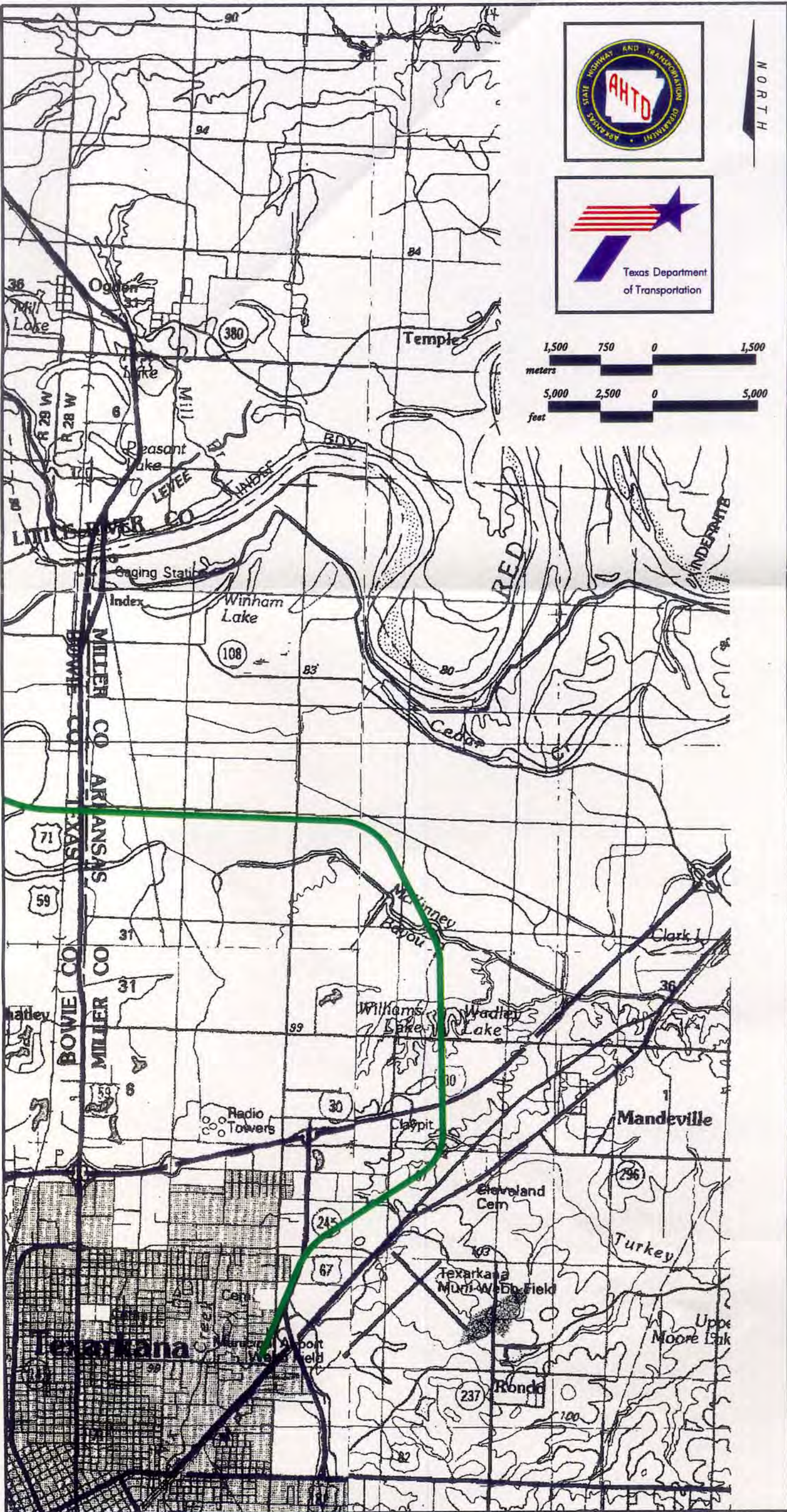


**LEGEND**

 SELECTED ALTERNATIVE

**FEIS...US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-1(a)  
SELECTED ALTERNATIVE**



NORTH

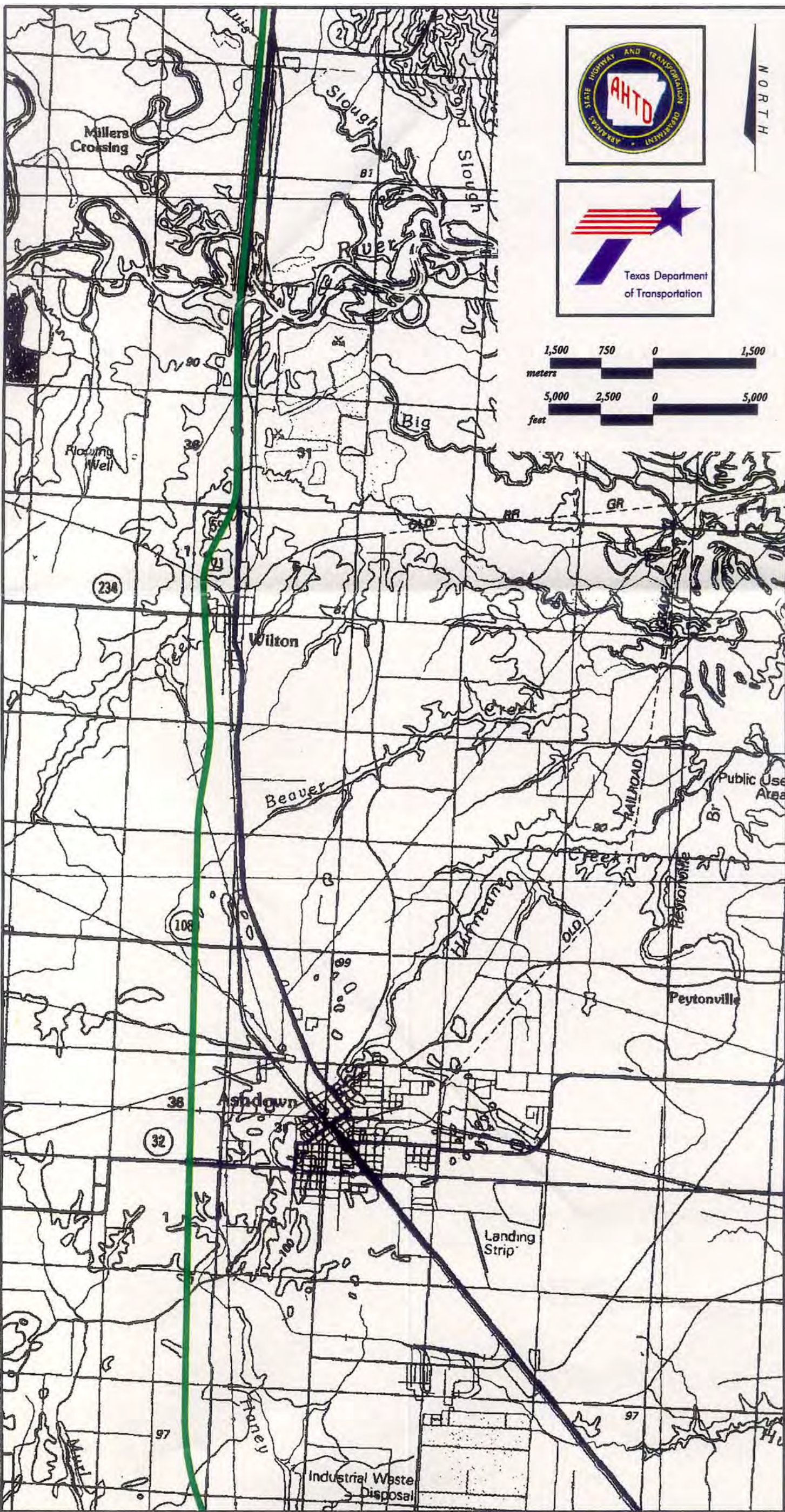


**LEGEND**

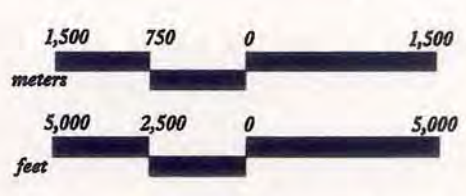
SELECTED ALTERNATIVE

**FEIS...US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-1(b)  
SELECTED ALTERNATIVE**



NORTH

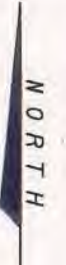
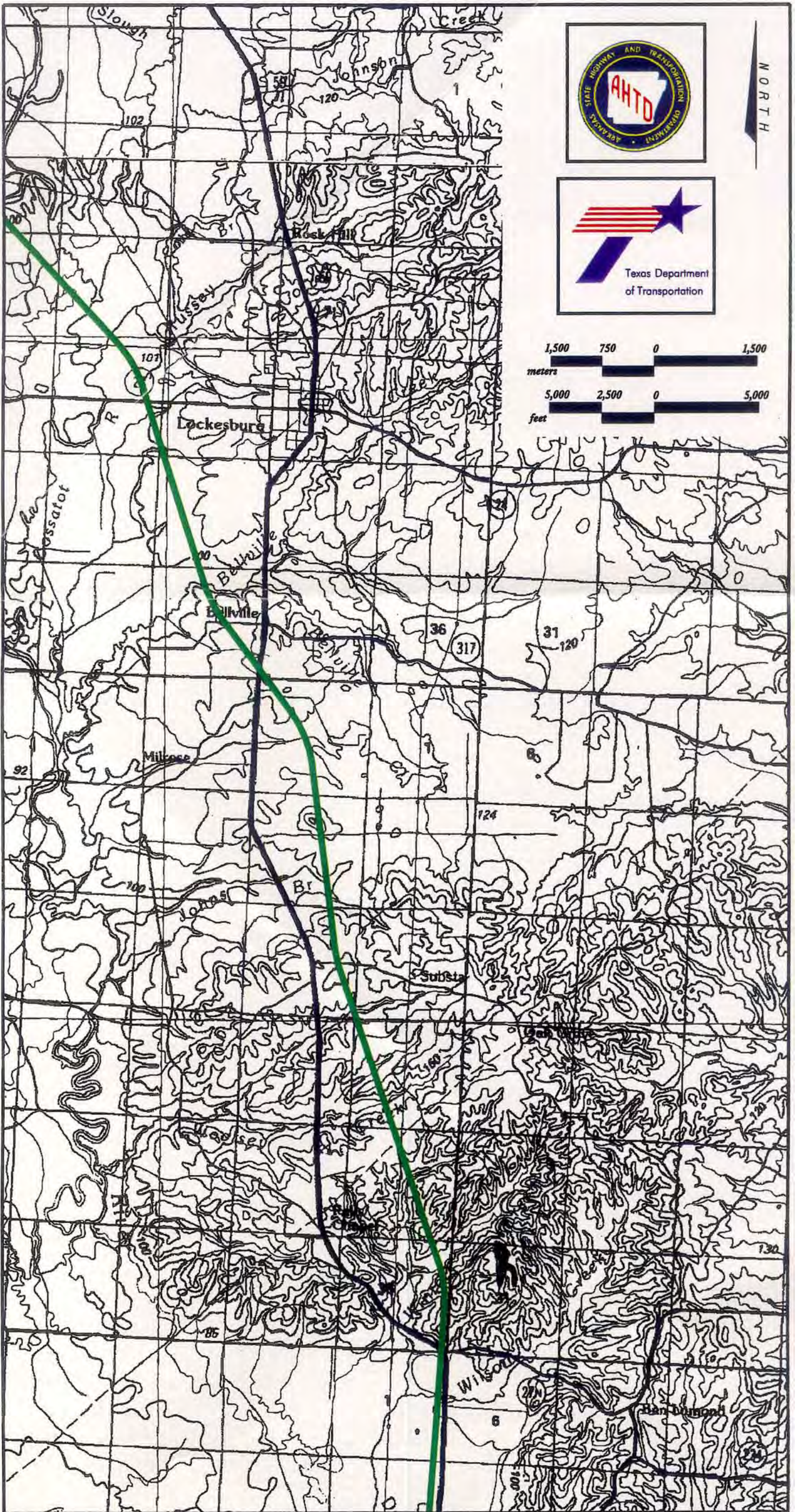


**LEGEND**


 SELECTED ALTERNATIVE

**FEIS...US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-1(c)  
SELECTED ALTERNATIVE**



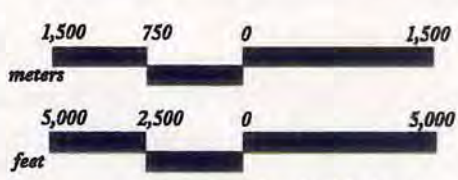
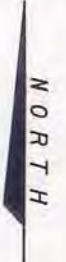
**LEGEND**

 SELECTED ALTERNATIVE


**FEIS...US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-1(d)  
SELECTED ALTERNATIVE**





**LEGEND**

 SELECTED ALTERNATIVE

**FEIS...US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-1(e)  
SELECTED ALTERNATIVE**

of the Texarkana urban area via the eastern and western legs of the northern loop. Project Purpose #8 recognizes the need and desire to provide for efficient staging of the construction of the proposed facility. The new central extension from the northern loop meets this need best by initially connecting with US71 on the Red River floodplain. This provides AHTD and TxDOT the flexibility to construct the east and west legs of the northern loop as local needs and priorities arise.

### **Best Few Alternatives**

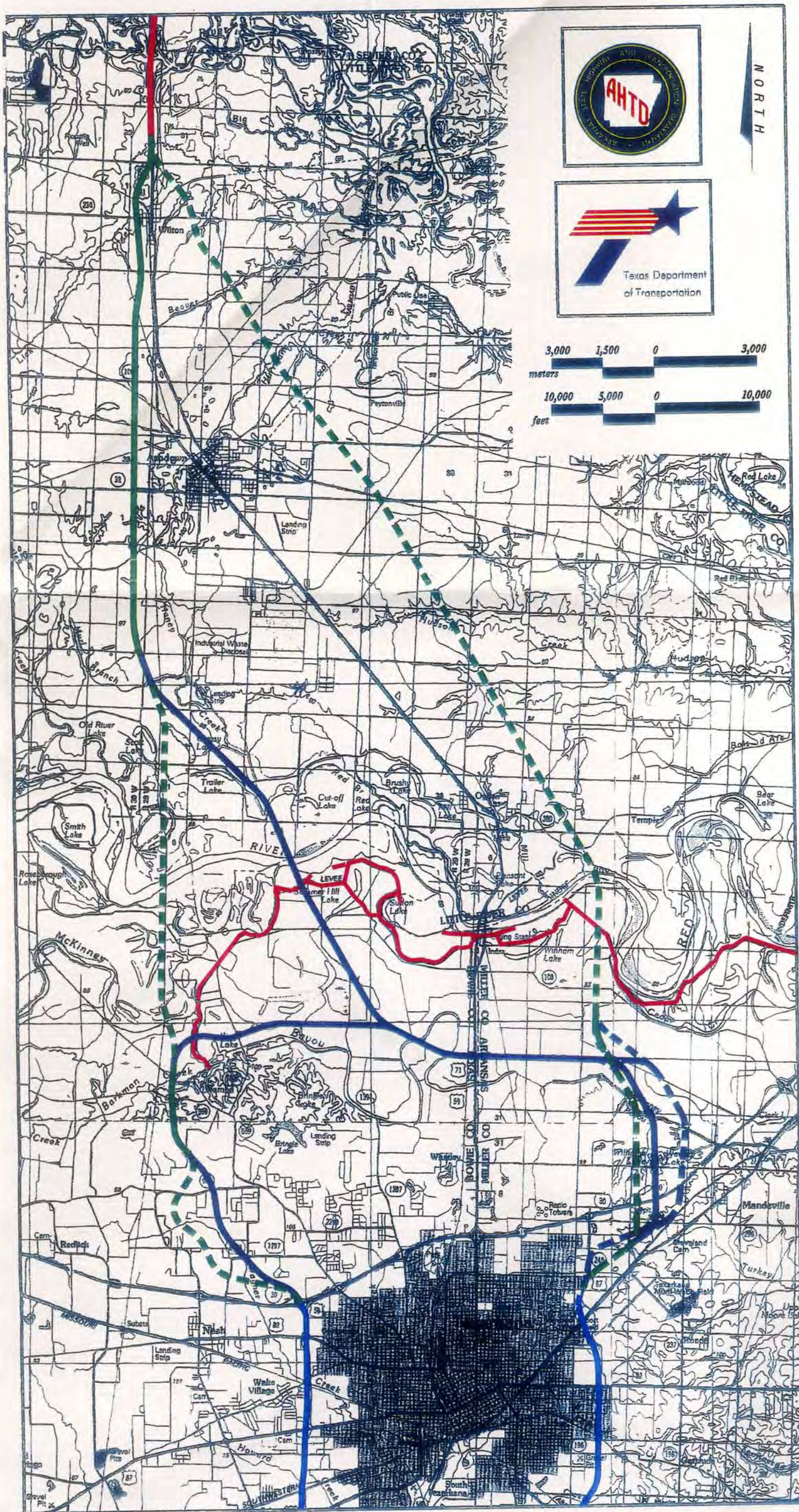
Of the 18 final study alternatives, Corridor C Alternative 10 (C-10) passing west of Ashdown and Texarkana and Corridor D Alternative 18 (D-18) passing east of Ashdown and Texarkana were recommended for retention as the Best Few Alternatives for the US71 Relocation, Texarkana to DeQueen project. Alternatives C-10 and D-18 cross the Little River floodplain along the joint development transportation corridor identified by the U.S. Fish and Wildlife Service (FWS) for the Pond Creek Bottoms National Wildlife Refuge (NWR), and join the selected location alignment for the *US71 Relocation DeQueen to Interstate 40* project. Exhibit ES-2 shows the route of the two Best Few Alternatives from Texarkana to US70 / US71 east of DeQueen. North of the Little River, the Best Few Alternatives share a common location alignment. South of the Little River, Alternative C-10 passes west of Ashdown and Texarkana and Alternative D-18 passes east of Ashdown and Texarkana.

Of the five alternatives (out of eighteen identified in the 1997 DEIS) which pass through the FWS Joint Development Transportation Corridor at the Pond Creek Bottoms NWR, and connect with the location alignment approved for the *DeQueen to Interstate 40* project at US70 / US71, Alternative C-10 has the shortest length, the lowest "through-vehicle-distance", and the shortest length through archaeological high probability areas. From among the same group of alternatives, Alternative D-18 has the fewest residential and business relocations, the fewest affected neighborhoods, the smallest area crossing the 100-year floodplain, the least amount of filled wetlands, and the second-lowest "through-vehicle-distance".

Exhibit ES-2 shows the alignments of the US71 Texarkana Northern Loop Alternatives, with the Best Few Alternatives shown in green, and new location alignments shown in dark blue.

### **US71 Texarkana Northern Loop Alternatives**

Comparative evaluations of the Texarkana Northern Loop Alternatives were accomplished through comparisons within three geographic groupings; the west leg of the northern loop, the east leg of the northern loop, and the floodplain loop and northern extensions, and are documented in Section 5.1. Table ES-1 provides a summary of the traffic operations, engineering, and environmental impact data for these three sets of alternatives. The recommended alignment from each of the three groupings is identified by the shaded column in the table. Table ES-2 summarizes the engineering, cost and environmental impact data for the alignment identified as the selected Texarkana Northern Loop Alternative.



**FEIS... US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-2  
TEXARKANA NORTHERN LOOP  
REASONABLE AND FEASIBLE  
ALTERNATIVES**

- NEW N. LOOP ALTERNATIVES
- UNIQUE ALIGNMENT; BEST FEW
- COMMON ALIGNMENT; BEST FEW
- EXIST./PROP. SOUTH LOOP
- BOWIE & MILLER LEVEES



**TABLE ES-2  
TEXARKANA NORTHERN LOOP SELECTED ALTERNATIVE DATA**

		RR2,RR3,CL1a,LP1a,LE1a,LP3,LP4,UL1a UU7,UU4,UU2,LE2,CC3	SELECTED ALTERNATIVE			RR2,RR3,CL1a,LP1a,LE1a,LP3,LP4,UL1a UU7,UU4,UU2,LE2,CC3	SELECTED ALTERNATIVE			RR2,RR3,CL1a,LP1a,LE1a,LP3,LP4,UL1a UU7,UU4,UU2,LE2,CC3	SELECTED ALTERNATIVE
<b>FULFILL PROJECT PURPOSE</b>				<b>HUMAN ENVIRONMENT</b>				<b>NATURAL ENVIRONMENT</b>			
Congressional Mandate High Priority Corridor #1 #1 yes				<b>RELOCATIONS</b>				<b>VEGETATION COMMUNITIES</b>			
Fill N-S Freeway Gap btwn I-35 and I-55 #2 yes				Residential Relocations (#) 85				Total Forested (Including wetlands) ha (ac) 171.1 (422.9)			
Access for Trade & Transportation Corridor #3 yes				Apartment Units (#) 40				Pine Forest ha (ac) 92.6 (228.8)			
Improve Safety Texarkana to DeQueen #4 yes				Single Family Site-Built Homes (#) 39				Mixed Pine Hardwood Forest ha (ac) 40.4 (99.9)			
Improve Safety along US71 through Ashdown #5 yes				Single Family Mobile Homes (#) 6				Upland Hardwood Forests ha (ac) 18.3 (45.3)			
Reduce Congestion IH-30 and US71 Texarkana #6 yes				Minorities (#) 12				Bottomland Riparian Forests ha (ac) 19.8 (48.8)			
AHTD/TxDOT Flexibility w/ Corridors #1 and #20 #7 yes				Low Income (#) 19				Cutover Regenerative Areas ha (ac) 41.7 (103.0)			
Cost Effective, Functional Construction Staging #8 yes				Affected Neighborhoods				Grasslands ha (ac) 369.7 (913.5)			
				Direct Takes (#) 3				Croplands ha (ac) 46.9 (115.8)			
<b>ENGINEERING</b>				Proximity w/in 305 m (1,000 ft) (#) 17				<b>WILDLIFE HABITAT</b>			
Total Mainline Length km (mi) 59.59 (37.03)				Commercial/Industrial (#) 9				Hydric Habitat (Wetland) ha (ac) 22.3 (55.1)			
Right-of-Way ha (ac) 778 (1,923)				Agricultural Production (Hogs, Chickens) (#) 2				Aquatic Habitat (Open Water) ha (ac) 11.3 (27.8)			
<b>COST ESTIMATES</b>				Sensitive Facilities (public/social/recreation) Takes (#) 1				Forest Fragmentation km (mi) 4.4 (2.7)			
Total Cost: ROW and Construction (\$M) 252.607				Sensitive Facilities w/in 305 m (1,000-ft) Proximity (#) 7				<b>WETLANDS and WATERS OF THE U.S.</b>			
Total ROW Costs (\$M) 26.012				<b>NOISE IMPACTS</b>				Total Filled Wetlands ha (ac) 22.3 (55.1)			
Construction Engineering Cost (\$M) 226.182				Total Central Traffic (#) 156				Filled Forested Wetlands ha (ac) 17.0 (41.9)			
Additional Noise Barrier Costs (\$M) 0.413				With Barriers Central Traffic (#) 156				Filled Non-Forested Wetlands ha (ac) 5.3 (13.2)			
Comparative Cost (% of Minimum)				<b>HAZARDOUS MATERIALS</b>				Filled Open Water (Waters of the U.S.) ha (ac) 11.3 (27.8)			
<b>ENGINEERING</b>				Potential Haz Mat Sites (#) 3				Swamp Wetlands ha (ac) 0.0 (0.0)			
Interchanges (#) 14				Potential UST Sites (#) 1				Forested Depressions ha (ac) 9.7 (24.0)			
Grade Separations (#) 10				<b>NATURAL ENVIRONMENT</b>				Ridge and Swale Wetlands ha (ac) 7.2 (17.9)			
Terminated Roads (#) 21				Prime & Unique Farmlands ha (ac) 494 (1,221)				Marsh Wetlands ha (ac) 2.4 (5.8)			
<b>CONSTRUCTION STAGING</b>				Statewide Important Farmlands ha (ac) 27 (66)				Scrub Shrub Wetlands ha (ac) 3.0 (7.4)			
length km (mi) 31.78 (19.75)				<b>FARMLAND CONVERSION IMPACT RATING</b>				Open Water ha (ac) 11.3 (27.8)			
cost (\$M) 97.658				<160 IS NOT SIGNIFICANT 143				Bridged Open Water (Waters of the U.S.) ha (ac) 3.1 (7.6)			
function balanced				<b>MILLWOOD LAKE WATER SUPPLY</b>							
<b>CULTURAL ENVIRONMENT</b>				Potential Increased Risk Compared to Existing US71 less							
Archaeological				<b>STREAM CROSSINGS AND FLOODPLAINS</b>							
National Register Sites / Districts w/in 305 m (1,000 ft) (#) 1				Perennial Stream Crossings (#) 11							
Other Recorded Sites indirect (#) 3				Intermittent Stream Crossings (#) 20							
Historic Roads and Trails indirect (#) 4				Natural Stream Channel Relocations m (ft) 681 (2,234)							
Cemeteries indirect (#) 1				Area in 100-Year Floodplains ha (ac) 381 (941)							
<b>Historic</b>				Length in Red River 100-Year Floodplain km (mi) 30.5 (19.0)							
Potentially Eligible for NRHP route (#) 0				Length in Red River 100-Year Floodplain outside Bowie and Miller County Levees km (mi) 9.7 (6.0)							
within APE (#) 5											
noise affected (#) 0											

Exhibits ES-1(a) - 1(b) identify the selected alternative for the US71 Texarkana Northern Loop. The selected alternative consists of a new location alignment through northwest Texarkana, Texas on the west side of the Northern Loop, a new location alignment east of the Loop 245 Park on the east side of the Northern Loop, and a new crossing of the Red River west of Summerhill Lake. The selected alternative follows the alignment of the Best Few Alternative C-10 west of Ashdown, AR and Wilton, AR.

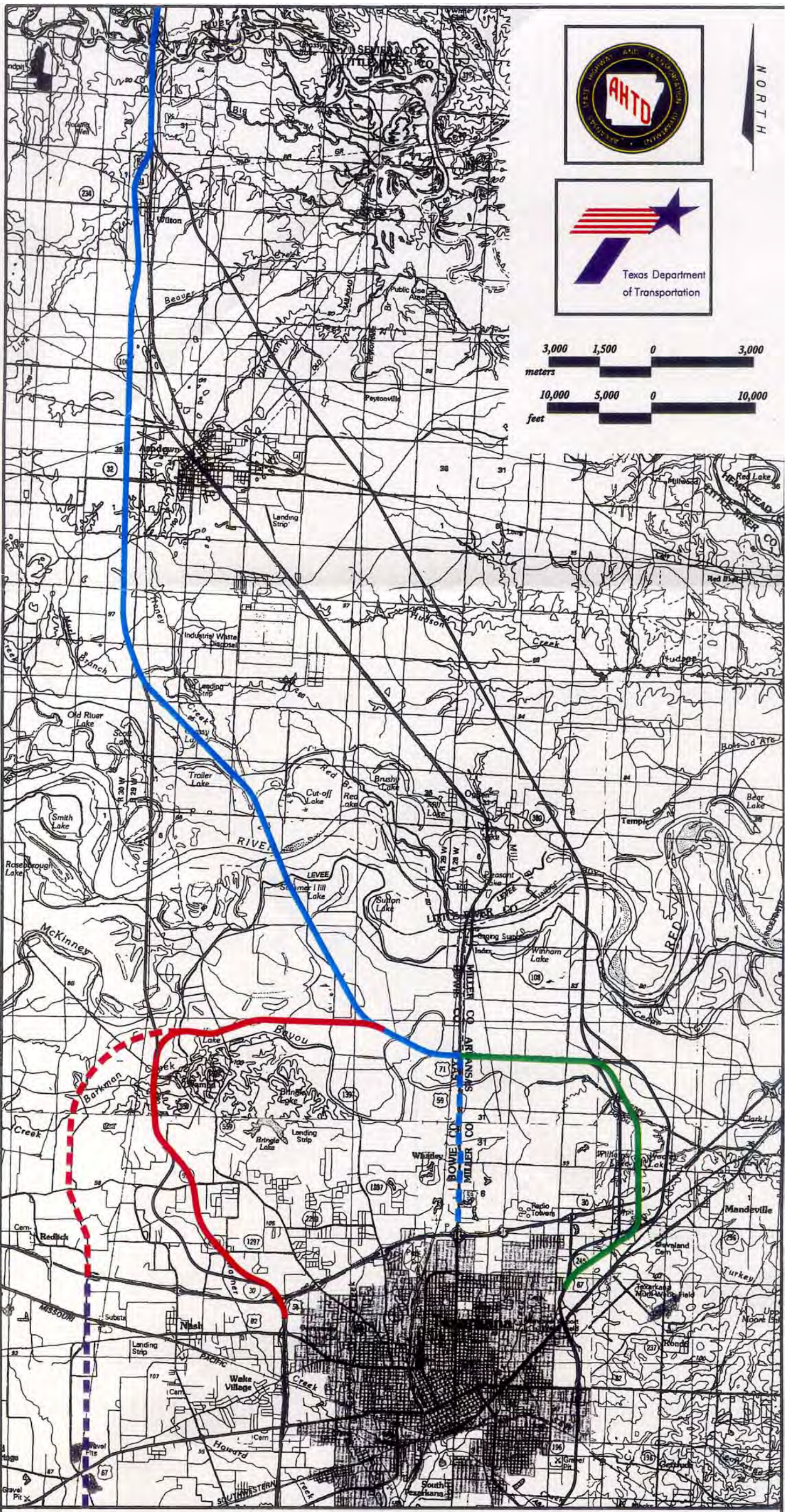
The selected Texarkana Northern Loop Alternative lends itself to efficient construction sequencing as a part of the overall US71 Texarkana to DeQueen project, as described in Section 2.4.6.6. Exhibit ES-3 shows how the project could be constructed south from DeQueen and Ashdown to tie in with the existing 4-lane section of US71 on the Red River floodplain. The existing 4-lane US71 and planned upgrades to the existing US71 / IH-30 interchange should provide sufficient capacity for the traffic expected until just before the entire US71 freeway project from Shreveport to Kansas City is completed. This intermediate terminus and the existing US71 / IH-30 interchange will provide an interim solution, but will not be able to provide sufficient capacity for the traffic expected to result from completion of the freeway from Shreveport, LA through Texarkana, to Kansas City, MO.

This proposed construction sequencing will allow AHTD and TxDOT the flexibility to plan and program the completion of the east and west sides of the proposed Northern Loop as traffic need and funding priorities allow. In Bowie County, future planning for High Priority Corridor #20 may result in connection of the west side of the Northern Loop to a relocated US59, rather than to the existing US59 / IH-30 interchange addressed in this study. When the results of the evaluation of Highway 59 south of IH-30 are completed further evaluation of the portion of the Northern Loop north of IH-30 should be reevaluated if Highway 59 is moved further to the west. Project changes of that magnitude in either state would require the preparation of additional environmental and location planning documents before land acquisition and construction activities could commence.

#### **Selected Alternative for the Entire US71 Texarkana to DeQueen Project.**

The Best Few Alternatives provide two options for the US71 project south of the Little River floodplain, and the selected US71 Texarkana Northern Loop Alternative provides a third. The Texarkana Northern Loop Alternative is the only alternative to fulfill all eight of the project purposes identified in Section 1, and therefore is identified as the selected alternative south of the Little River floodplain. Construction of the selected alternative can be sequenced to connect with US71 on the Red River floodplain north of Texarkana. This will provide a functional interim facility that costs less than either Best Few Alternatives C-10 or D-18, and provides AHTD and TxDOT the flexibility to complete the eastern and western legs of the northern loop as projects connecting with High Priority Corridor

#1 and High Priority Corridor #20, respectively. The selected alternative provides connection to US 71 south of Texarkana via IH-30 and Highway 245. The initial stages of the project construction will provide a connection to US 71 north of Texarkana. In this interim design traffic can utilize US 71 south to IH-30 and avoid downtown Texarkana by traveling east on IH-30 to Highway 245 then travel south to US 71 south of Texarkana. The IH-30/US



- INITIAL CONSTRUCTION OF US 71 TO DeQUEEN
- INITIAL TRAVEL PATH FOR US 71 TRAFFIC
- AHTD COMPLETION OF LOOP
- TXDOT COMPLETION OF LOOP
- ALTERNATIVE TXDOT COMPLETION OF LOOP
- POTENTIAL US 59 RELOCATION

**FEIS...US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-3  
CONSTRUCTION STAGING PLAN**

71 interchange is currently under design for improvements which will facilitate the additional traffic expected through the interchange. After completion of the Texarkana Northern Loop the connection of Highway 245 will be completed to facility the connection to US 71 south of Texarkana.

North of Wilton, a 35.5-km (22 mi) common alignment shared by best few alternatives C-10 and D-18 was identified from among the alternatives presented in the 1997 DEIS. This alignment joins the selected northern loop alternative on the south side of the Little River floodplain, presented in the 1999 SDEIS and shown in Exhibit ES-3. Together, these alignments join to form the selected alternative for the US71 Texarkana to DeQueen project. Table ES-3 lists the costs, engineering, and environmental impact data for this 95 km (59 mi) selected alternative. Note that most of the data for the common alignment through Sevier County has not been updated since the 1997 DEIS, whereas the data for the Northern Loop Alternative is based upon evaluations conducted during 1998 and 1999, as documented in the 1999 Supplemental DEIS. The only updated data for the selected alternative in Sevier County is related to wetlands, open water, and stream impacts, which were revised to reflect the results of the field delineation of jurisdictional wetlands conducted in 1999.

## **ES.2 OTHER PROPOSED FEDERAL ACTIONS**

**Pond Creek Bottoms National Wildlife Refuge (NWR).** The FWS has established the Pond Creek Bottoms NWR on the Little River and Cossatot River floodplains in Sevier County, Arkansas. The refuge, the 501st in the U.S., currently controls 11,048 ha (27,300 ac). The FWS plans an expansion of the refuge to approximately 12,141 ha (30,000 ac) on the north bank of the Little River. A Final Environmental Assessment and Land Protection Plan (FEA&LPP) for the expanded refuge was published by FWS in July 1994. The FEA&LPP and the Draft Management Plan for the Pond Creek Bottoms NWR identifies the widening of 2-lane US71 to a freeway facility through the refuge as a joint development transportation corridor. Best Few Alternatives C-10 and D-18 are located within the joint development transportation corridor. The draft Management Plan for the Pond Creek Bottoms NWR has been circulated for public review prior to final approval. Additional coordination with the FWS has been conducted in the development of the FEIS concerning both: 1) movement of the existing boat ramp to the eastern side of US 71 and, 2) maintenance of access to the refuge through the construction of a frontage road along the eastern side of US 71. Both of these issues are discussed in detail in the Effected Environment, Commitments and Draft Section 4(f) Evaluation sections of this document. This coordination with FWS is continuing to ensure that the project remains consistent with the joint development transportation corridor in the Management Plan for the Pond Creek Bottoms NWR.

**Red River Levees below Dennison Dam.** The COE is involved in a number of levee rehabilitation projects along the Red River below Dennison Dam. The refurbishment of the Miller County levees immediately downstream of existing US71 has been completed downstream to IH-30. The COE completed a Feasibility Study, Reconnaissance Report (1994), Environmental Assessment/FONSI (1997/1998) and Design Memorandum (1997) for the refurbishment of the Bowie County levees immediately upstream of existing US71 and the Miller County Levee.



TABLE ES-3  
US71 TEXARKANA TO DEQUEEN SELECTED ALTERNATIVE DATA

	PARTIAL SELECTED ALTERNATIVE (South)				PARTIAL SELECTED ALTERNATIVE (North)				PARTIAL SELECTED ALTERNATIVE (South)				PARTIAL SELECTED ALTERNATIVE (North)				PARTIAL SELECTED ALTERNATIVE (South)				PARTIAL SELECTED ALTERNATIVE (North)							
	PARTIAL SELECTED ALTERNATIVE (South)	PARTIAL SELECTED ALTERNATIVE (North)	Complete SELECTED ALTERNATIVE		PARTIAL SELECTED ALTERNATIVE (South)	PARTIAL SELECTED ALTERNATIVE (North)	Complete SELECTED ALTERNATIVE		PARTIAL SELECTED ALTERNATIVE (South)	PARTIAL SELECTED ALTERNATIVE (North)	Complete SELECTED ALTERNATIVE		PARTIAL SELECTED ALTERNATIVE (South)	PARTIAL SELECTED ALTERNATIVE (North)	Complete SELECTED ALTERNATIVE		PARTIAL SELECTED ALTERNATIVE (South)	PARTIAL SELECTED ALTERNATIVE (North)	Complete SELECTED ALTERNATIVE		PARTIAL SELECTED ALTERNATIVE (South)	PARTIAL SELECTED ALTERNATIVE (North)	Complete SELECTED ALTERNATIVE					
<b>FULFILL PROJECT PURPOSE</b>																												
<b>Congressional Mandate High Priority Corridor #1</b>																												
#1	n/a	n/a	yes	<b>HUMAN ENVIRONMENT</b>																<b>NATURAL ENVIRONMENT</b>								
<b>Fill N-S Freeway Gap btwn I-35 and I-55</b>																												
#2	n/a	n/a	yes	<b>RELOCATIONS</b>																<b>VEGETATION COMMUNITIES</b>								
<b>Access for Trade &amp; Transportation Corridor</b>																												
#3	n/a	n/a	yes	<b>Residential Relocations</b>																<b>Total Forested (including wetlands)</b>								
#4	n/a	n/a	yes																	Pine Forest								
#5	n/a	n/a	yes																	Mixed Pine Hardwood Forest								
#6	n/a	n/a	yes																	Upland Hardwood Forests								
#7	n/a	n/a	yes																	Bottomland / Riparian Forests								
#8	n/a	n/a	yes																	Cutover-Regenerative Areas								
<b>ENGINEERING</b>																												
<b>Total Mainline Length</b>																												
km	59.59	35.45	95.04																	<b>WILDLIFE HABITAT</b>								
(mi)	(37.03)	(22.03)	(59.06)																	<b>Hydric Habitat (Wetland)</b>								
<b>Right-of-Way</b>																												
ha	778	352	1130																	<b>Aquatic Habitat (Open Water)</b>								
(ac)	(1,923)	(870)	(2,793)																	<b>Forest Fragmentation</b>								
<b>COST ESTIMATES</b>																												
<b>Total Cost: ROW and Construction</b>																												
(\$M)	252,607	148,262	400,869																	<b>WETLANDS and WATERS OF THE U.S.</b>								
<b>Construction / Engineering Cost</b>																												
(\$M)	226,182	145,953	372,135																	<b>Total Filled Wetlands</b>								
<b>Additional Noise Barrier Costs</b>																												
(\$M)	0,413	0,000	0,413																	Filled Forested Wetlands								
<b>Comparative Cost (% of Minimum)</b>																												
																				Filled Non-Forested Wetlands								
<b>ENGINEERING</b>																												
<b>Interchanges</b>																												
(#)	14	4	18																	Filled Open Water (Waters of the U.S.)								
<b>Grade Separations</b>																												
(#)	10	4	14																	Swamp Wetlands								
<b>Terminated Roads</b>																												
(#)	21	9	30																	Forested Depressions								
<b>CONSTRUCTION STAGING</b>																												
length	19.75																			Ridge and Swale Wetlands								
km (mi)																				Marsh Wetlands								
cost	97,652																			Scrub/Shrub Wetlands								
(\$M)																				Open Water								
function	balanced																			Bridged Open Water (Waters of the U.S.)								
<b>CULTURAL ENVIRONMENT</b>																												
<b>Archaeological</b>																												
<b>National Register Sites / Districts</b>																												
(w/in 305m) (#)	1	0	1																									
<b>Other Recorded Sites</b>																												
(direct) (#)	3	7	10																									
(indirect) (#)	4	7	11																									
<b>Historic Roads and Trails</b>																												
(direct) (#)	4																											
<b>Cemeteries</b>																												
(indirect) (#)	1																											
<b>Historic</b>																												
<b>Potentially Eligible for NRHP</b>																												
(take) (#)	0	0	0																									
(w/in APE) (#)	5	3	8																									
(noise affected) (#)	0	0	0																									
<b>HAZARDOUS MATERIALS</b>																												
<b>Potential Haz Mat Sites</b>																												
(#)	3																											
<b>Potential UST Sites</b>																												
(#)	1																											
<b>NATURAL ENVIRONMENT</b>																												
<b>Prime &amp; Unique Farmlands</b>																												
ha (ac)	494	(1,221)	221	(546)	715	(1,767)																						
<b>Statewide Important Farmlands</b>																												
ha (ac)	27	(66)																										
<b>FARMLAND CONVERSION IMPACT RATING</b>																												
<b>&lt;160 NOT SIGNIFICANT</b>																												
<b>143</b>																												
<b>MILLWOOD LAKE WATER SUPPLY</b>																												
<b>Potential Increased Risk Compared to Existing US71</b>																												
<b>less same less</b>																												
<b>STREAM CROSSINGS AND FLOODPLAINS</b>																												
<b>Perennial Stream Crossings</b>																												
(#)	11			11	22																							
<b>Intermittent Stream Crossings</b>																												
(#)	20			13	33																							
<b>Natural Stream Channel Relocations</b>																												
m (ft)	681	(2,234)	0	0	681	(2,234)																						
<b>Area in 100-Year Floodplains</b>																												
ha (ac)	381	(941)	119	(294)	500	(1,235)																						
<b>Length in Red River 100-Year Floodplain</b>																												
km (mi)	30.5	(19.0)	0	0	30.5	(19)																						
<b>Length in Red River 100-Year Floodplain outside Bowie and Miller County Levees</b>																												
km (mi)	9.7	(6.0)	0	0	9.7	(6.0)																						

The "PARTIAL SELECTED ALTERNATIVE (South)" is the preferred alignment for the US71 Texarkana Northern Loop and Northern Extension.  
The "PARTIAL SELECTED ALTERNATIVE (North)" is the preferred alignment across the Little River floodplain and through Sevier County.

Because the upstream portions of the Miller County Levee tie into structures that are not recognized as meeting Class I Levee design standards, the Miller County / Bowie County Levee system is not recognized by the Federal Emergency Management Agency (FEMA) as providing protection from a 100-year flood event on the Red River. However, funding for the Bowie County Levee Rehabilitation project has not been approved due to a low benefit-cost ratio from the 1994 Reconnaissance Report, which assumed that the Kansas City Southern railroad embankment provides sufficient upstream flood protection to eliminate the possibility of property damage on the interior of the Miller County Levee.

**Additional US71 freeway projects along the Kansas City, Missouri to Shreveport, Louisiana location alignment.** In addition to this project from Texarkana to DeQueen, Arkansas, there are additional planning/design projects underway along the US71 High Priority corridor. Immediately south of this project, AHTD has entered the construction phase for the US71 freeway from Texarkana to the Louisiana State Line, and the freeway-to-freeway interchange between US71(S) and SH 245 is under construction. Immediately north of this project, AHTD has completed the Final EIS and Record of Decision for the US71 freeway from DeQueen, Arkansas to near Fort Smith, Arkansas.

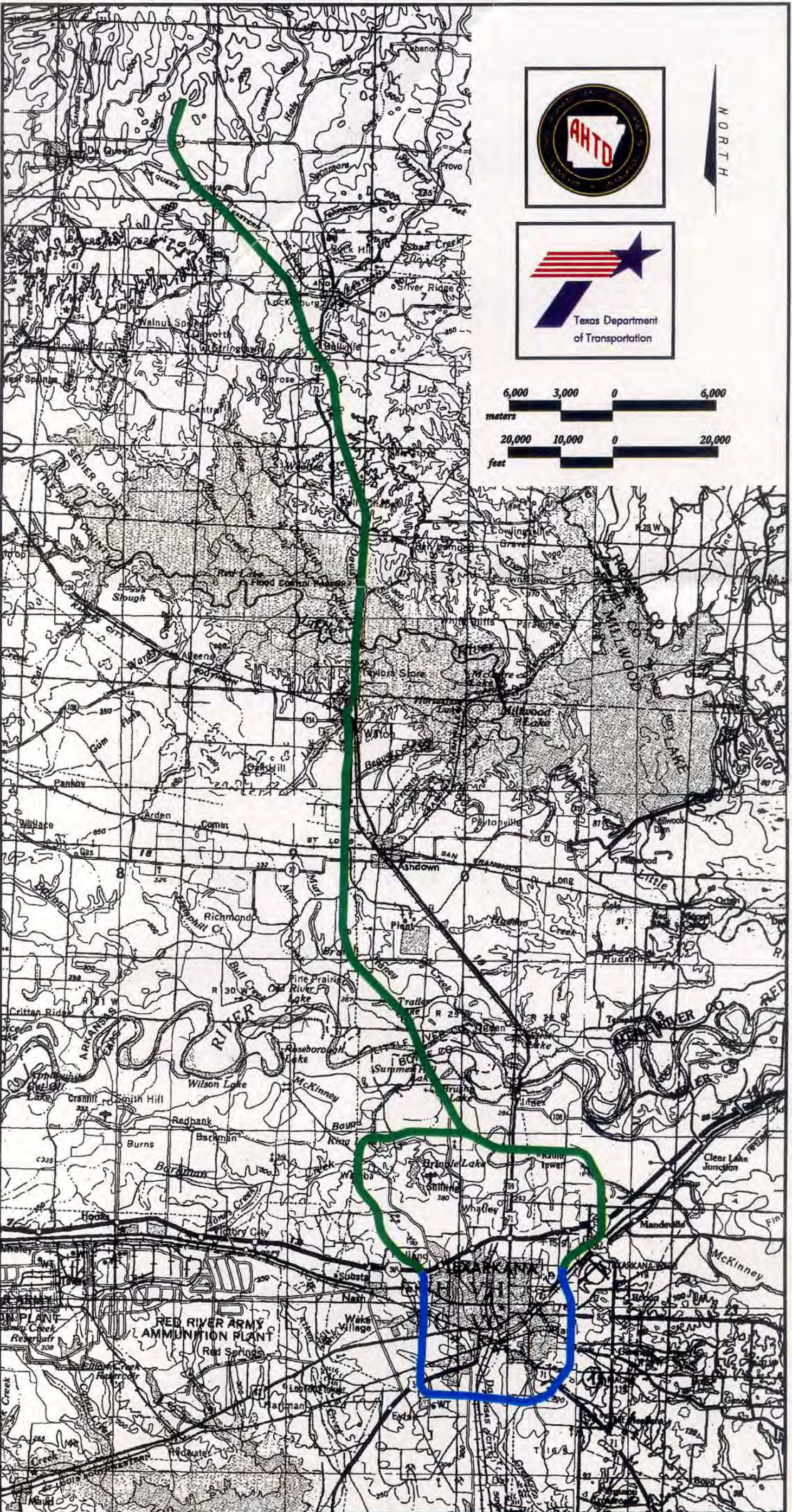
### **ES.3 COST AND IMPACT SUMMARY FOR THE TEXARKANA NORTHERN LOOP SELECTED ALTERNATIVE**

The total length of the selected alternative for the proposed Texarkana Northern Loop and Northern Extension is 60 km (37 mi). The Northern Loop is approximately 33 km (20 mi), and the northern extension is approximately 27 km (17 mi). The proposed right-of-way is approximately 770 ha (1,900 ac). Table ES-3 contains the estimated costs and potential environmental impacts from the selected alternative for the US71 Texarkana to DeQueen alternative including the Texarkana Northern Loop. Exhibit ES-4 illustrates the selected alternative.

Costs. It will cost approximately \$400 million for land acquisition and construction of the loop and northern extension from Wilton to DeQueen. This includes the two complex interchanges with IH-30 on the west and east sides of the northern loop. Until the traffic along US71 increases dramatically as a result of the final completion of the Kansas City to Shreveport US71 freeway, partial construction of the project to US71 on the Red River floodplain will provide an adequate facility for the forecast traffic, at a cost of approximately \$98 M (\$61 M in Little River County, and \$37 M in Bowie County). Future completion of the west and east sides of the northern loop would cost approximately \$103 M in Bowie County and \$55 M in Miller County.

Human Environment. The following impacts are based upon current land use and the conceptual design plans for the preferred alternative.

*Relocations.* A total of ninety-three families will be relocated by the preferred alternative. Forty of these are at the Westridge Apartments adjacent to the IH-30 / US59 interchange.



**LEGEND**

- █ SELECTED ALTERNATIVE
- █ EXIST./PROP. SOUTH LOOP

**FEIS.... US 71  
TEXARKANA TO DeQUEEN**

**EXHIBIT ES-4  
US 71 TEXARKANA TO DeQUEEN  
SELECTED ALTERNATIVE**

*Neighborhoods.* Homes will be taken from three neighborhoods (the Westridge apartment complex, Chaparral Lane, and Riverlands' Volga Circle). Approximately seventeen other neighborhoods will be within 305 m (1,000 ft) of the proposed right-of-way limits.

*Community Facilities and Recreation.* One church will be relocated by the preferred alternative (the Cathedral Heights Church of the Nazarene in Texarkana, AR). Ten other churches, cemeteries, and publicly-accessible recreational facilities will be within 305 m (1,000 ft) of the proposed right-of-way.

*Businesses.* The preferred alternative will relocate ten businesses. Seven of these are along US71 on the Red River floodplain, just north of McKinney Bayou, which could lose access from the southbound lanes of US71.

*Agriculture.* Along with other farm-related outbuildings, two large chicken barns in Little River County will be relocated by the preferred alternative.

*Traffic Noise.* Based upon the design year 2020 traffic along the preferred alternative, 170 residences and apartment units will have peak-hour traffic-generated noise approaching or exceeding the FHWA criteria of 67 dBA, or will experience substantial noise increases. There is one economical noise barrier as a part of this project.

*Hazardous Materials.* Three sites with potentially contaminated soils will be directly affected by the preferred alternative. One site with a registered underground storage tank will be affected.

**Cultural Environment.** The following impacts are based upon a reconnaissance survey for potentially historic structures, a pedestrian archaeological reconnaissance of high probability areas, and the conceptual design plans for the preferred alternative. The properties referred to as having "potential for listing on the National Register of Historic Places (NRHP)" have been coordinated with the Arkansas State Historic Preservation Officer (SHPO), and with the TxDOT Environmental Division Historic Architecture Specialist, consistent with the TxDOT / Texas SHPO procedures. Historic Architectural Surveys and formal Section 106-Coordination was performed for all 50+ year old properties within the Area of Potential Effect (APE) of the selected alternative as part of this FEIS. Intensive archaeological surveys and Section 106 coordination were also performed within the proposed right-of-way for the selected alternative.

*Historic Architecture.* No buildings with "potential for listing on the NRHP" will be taken by the selected alternative. There are six buildings with "potential for listing" within the kilometer-wide APE for the selected alternative. The additional documentation and Section 106 coordination for sites with "potential for listing on the NRHP" within the APE of the preferred alternative have not identified right-of-way encroachments on the historic property limits associated with "eligible" structures.

*Archaeology.* There is one NRHP archaeological site within 460 m (1,500 ft) of the proposed right-of-way (the Summerhill Lake Place / Tilson Mounds), ten previously recorded archaeological sites directly impacted by the project, and eleven previously recorded sites within 305 m (1,000 ft) of the proposed right-of-way. Given the rich historic and prehistoric environments of the Red River and Little River basins, the intensive survey of the selected alternative is expected to uncover additional archaeological

sites. Section 106 coordination has been accomplished with the two SHPOs as appropriate. (NOTE: WAITING ON OFFICIAL LETTER)

Natural Environment. The following impacts are based upon 1995 to 1997 aerial photography, augmented by selected field visits, national wetlands inventory mapping, and the conceptual design plans for the selected alternative.

*Streams.* The project will cross twenty-two perennial and twenty intermittent streams, and relocate approximately 0.7 km (0.4 mi) of stream channel.

*100-Year Floodplains and Regulatory Floodways.* The selected alternative does not place fill within the limits of regulatory floodways. Approximately 500 ha (1,235 ac) of the 1130 ha (2,8000 ac) right-of-way lies within the limits of 100-year floodplains. Most of this is on the Red River floodplain, where approximately 70-percent of the roadway alignment receives some level of flood protection behind the Bowie and Miller County levees. However, this levee system does not meet FEMA / COE design standards, and is not officially recognized as providing protection from 100-year flood events.

*Vegetation Communities.* Approximately 347 ha (857 ac) of various forest types are taken by the project, 48 ha (118 ac) of cutover/regenerative forest, 465 ha (1148 ac) of grassland, and 47 ha (116 ac) of cropland.

*Prime Farmland.* Approximately 715 ha (1,767 ac) of Prime & Unique Farmlands will be taken by the project for right-of-way. The selected alternative has a Farmland Conversion Impact Rating of 141, below the critical threshold of 160.

*Endangered and Threatened Species.* The selected alternative does not take land from areas identified as being Sensitive Natural Communities by the Arkansas Natural Heritage Commission (ANHC) or the Texas Parks and Wildlife Department (TPWD), and no federally-listed Endangered or Threatened Species will be affected.

*Jurisdictional Wetlands and Open Water.* The selected alternative will impact approximately 46 ha (113 ac) of jurisdictional wetlands; 29 ha (72 ac) of forested wetlands and 17 ha (42 ac) of other vegetated wetlands. Approximately 13 ha (32 ac) of open water areas will be impacted.

#### ES.4 ENVIRONMENTAL COMMITMENTS

The AHTD and the TxDOT make the following commitments with respect to the avoidance or minimization of major environmental impacts during design, construction, and maintenance of this project.

The project will avoid, minimize, and mitigate wetland impacts, as described in Section 4.8.2, "Wetland Mitigation Planning."

A 404 Permit is in place for this project. Additional coordination will be conducted as project development continues.

Measures will be taken to prevent the unnecessary entry of construction machinery in wetland areas during construction.

Coordination with Texas Parks and Wildlife Department will continue to be conducted related to upland - woodlands mitigation as the project development continues.

Best management practices will be utilized for erosion and sediment control.

During construction of the proposed project, all materials resulting from clearing and grubbing, demolition, or other operations will be removed from the project, burned, or otherwise disposed of by the contractor. Any burning done will be accomplished in accordance with applicable laws, ordinances, and regulations. Care will be taken to ensure burning will be done at the greatest distance practicable from dwellings and not when atmospheric conditions are such as to create a hazard to the public. Burning will be performed under constant surveillance.

Measures will be taken to minimize the dust generated by construction when the control of dust is necessary for the protection and comfort of motorists or area residents.

A Phase II Intensive Archaeological Survey will be accomplished along the selected alternative.

AHTD will continue coordination with the FWS for the construction of the US71 freeway in the Joint Development Transportation Corridor through the Pond Creek Bottoms NWR, including the proposed expansion area. Access to the refuge will be maintained. The exact location and design has not been determined but will be arranged through on going coordination with USFWS and will be located within the existing Joint Development Transportation Corridor.

The Wilton Landing Boat Ramp will be relocated to the east side of US 71 prior to the construction of US 71 to allow continuous public access to the Little River. This issue is discussed in detail in the Section 4(f) Evaluation located in Section 6 of this document.

A hydraulic risk assessment consistent with 23CFR 650(A) will be performed to develop the design floods for the selected alternative. Preliminary assessment efforts relative to floodway avoidance were performed as part of this study. Further more detailed assessments will be performed during the detailed design phases of the project.

Additional hydraulic studies will be accomplished to further define the bridge lengths for crossings of the Red River prior to the initiation of design, permitting and construction.

The project will avoid and minimize impacts to publicly owned land managed for recreational or wildlife refuge purposes, as well as to sites identified as eligible for listing on the National Register of Historic Places, in accordance with Section 4(f) guidelines.

## **ES.5 COORDINATION AND PUBLIC INVOLVEMENT**

Public Hearings for the SDEIS were held in February and March of 2000 in: Texarkana, Texas; Ashdown, Arkansas and Texarkana, Arkansas. A Notice of Intent to prepare the Supplemental DEIS for the US71 Texarkana Northern Loop Alternatives was published on November 13, 1998, a project scoping letter was distributed in March 1999, and an Inter-Agency Scoping Meeting was conducted in March 1999. The Texarkana Metropolitan Planning Organization issued a resolution in March 1998 supporting the continued study of the Texarkana Northern Loop Alternatives as part of the US71 Texarkana to DeQueen project.

After the 1997 Public Hearings, a National Environmental Policy Act (NEPA) Technical Advisory Committee (TAC) was formed to coordinate the US71 Texarkana to DeQueen project. The NEPA TAC membership includes representatives from AHTD, TxDOT, FHWA Arkansas Division, FHWA Texas Division, and FHWA Region VI (recently disbanded as part of an FHWA reorganization). The NEPA TAC has met for the identification of Best Few Alternatives, the addition of the Northern Loop Alternative to the project, the identification of reasonable and feasible Northern Loop Alternatives, the approach for the evaluations in the Supplemental DEIS, the identification of preferred alternatives for the Northern Loop and the entire US71 Texarkana to DeQueen project and the selection of the route presented in this FEIS.

Coordination has continued with COE Little Rock District and FWS Pond Creek Bottoms NWR personnel regarding potential wetlands mitigation sites, the design of the project across the Little River floodplain and access to the refuge and relocation of the boat ramp.

Public involvement activities included the distribution of the DEIS in early 1997, a project newsflyer in April 1997, three evenings of public hearings in Arkansas and one evening of public workshops in Texas in April 1997. In April 1998 a newsflyer was distributed and in May 1998, public workshops were held in Texarkana, Arkansas; Texarkana Texas and Ashdown, Arkansas to present the Best Few Alternatives C-10 and D-18, and to reveal the addition of the US71 Texarkana Northern Loop to the US71 study. A project mailing list is being maintained with those who have attended public workshops, or expressed an interest in the project through written correspondence or phone calls. Public Hearings were held at three locations in February and March of 2000 presenting the SDEIS and the preferred alternative which is presented in this FEIS as the selected alternative.

This FEIS identifies a selected alternative for the entire US71 freeway project between Texarkana and DeQueen. The selected alternative is not a design with specific right-of-way limits, but rather a broader location alignment within which the proposed freeway, its interchanges and other features will be designed.

No unresolved issues have been identified at this point in the study which materially affect the location alignment decisions addressed in this Final EIS. However, resolution of the design flood elevation and levee protection issues on the Red River floodplain will continue to be addressed during subsequent project development activities.

#### **ES.6 ACTIONS REQUIRED BY OTHER AGENCIES**

Federal actions that will be required regardless of the alternative selected include the following.

A Section 404 Permit for the entire project is in place from the U.S. Army Corps of Engineers, Little Rock District. AHTD and TxDOT will continue working closely with the Regulatory Branch of the U.S. Army Corps of Engineers (Little Rock is the lead district) to delineate wetlands along the preferred alternative, review final plans, and coordinate mitigation measures throughout project development.

Section 106 Coordination with the Advisory Council on Historic Preservation, Arkansas and Texas State Historic Preservation Officers, the Arkansas Historic Preservation Program, and the Texas Historical Commission (Department of Antiquities Protection), as appropriate.

Floodway modifications from the Federal Emergency Management Agency.

The FWS and the COE will be consulted regarding stream channel changes involved with the project, as appropriate.

AHTD will continue coordination with the FWS to ensure that the design of US71 across the Little River floodplain is consistent with the joint development transportation corridor in the Management Plan for the Pond Creek Bottoms NWR and that access will be maintained to the refuge.

State actions that will be required regardless of the alternative selected include the following.

401 Water Quality Certifications by the Arkansas Department of Environmental Quality(ADEQ), and the Texas Natural Resource Conservation Commission( TNRCC).