



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**LITTLE ROCK DISTRICT, CORPS OF ENGINEERS**  
**POST OFFICE BOX 867**  
**LITTLE ROCK, ARKANSAS 72203-0867**  
[www.swl.usace.army.mil/](http://www.swl.usace.army.mil/)

CESWL-RD

January 12, 2012

APPLICATION NO. **MVK 2007-00787-2**

JOINT PUBLIC NOTICE  
CORPS OF ENGINEERS - STATE OF ARKANSAS  
(25-Day Comment Period)  
(Comment Expiration Date – **February 6, 2012**)

**TO WHOM IT MAY CONCERN: Comments are invited on the work described below. Please see the Public Involvement section for details on submitting comments.**

Point of Contact. If additional information is desired, please contact the project manager, Johnny McLean, telephone number: (501) 324-5295, mailing address: Little Rock District Corps of Engineers, Regulatory Division, PO Box 867, Little Rock, Arkansas 72203-0867, e-mail address: [Johnny.L.McLean@usace.army.mil](mailto:Johnny.L.McLean@usace.army.mil).

Project Information. Pursuant to Section 404 of the Clean Water Act (33 U.S. Code 1344), notice is hereby given that

**Arkansas Highway Transportation Department (AHTD)**  
**PO Box 2261**  
**Little Rock, Arkansas 72203**

has requested authorization for the placement of dredged and fill material in waters of the United States associated with constructing the final two segments (jobs) of the Interstate 69 (I-69) Connector highway. The AHTD jobs are Job 20356 and 20357. Job 20356 will construct a two-lane east-west connector highway between State Highway 11 and U.S. Highway 425. Total length of this job is 3.04 miles and all construction will be on new alignment. Job 20357 will construct two of the four lanes for the main I-69 Connector highway. Total length of this job is 10.45 miles and all construction will be on new alignment. The proposed project begins in Drew County approximately five miles northeast of the City of Monticello, section 1, T. 12 S., R. 8 W., and ends approximately six miles southeast of Star City in section 12, T. 10 S., R. 8 W., Lincoln County, Arkansas. The approximate alignment is shown on enclosed Sheets 1 through 2 of 14.

The basic purpose is to provide an efficient highway that will function as a critical link in the interstate system that serves travel, economic development and commercial demands in both the project area and the south-central United States. The overall purpose of the project is to

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construct a four-lane interstate grade highway that will connect I-69 to Interstates 30 and 40 in Little Rock via I-530 in Pine Bluff and complete a vital component of the I-69 corridor as identified in the 1998 Transportation Efficiency Act (TEA). This project is not water dependent, but an extensive alternative analysis was completed as part of the Environmental Impact Statement (EIS) and planning process.

Plans for the main I-69 Connector highway (Job 20357) are to construct two lanes now and two lanes will be constructed at a later date. The corridor for all four lanes will be cleared. Therefore, total impacts and mitigation for the four-lane impacts have been calculated and included in this public notice. Construction for Job 20356 (3.04 miles of two-lane highway) will begin in 2012. Construction for Job 20357 (10.45 miles of four-lane highway) will be at a later date and as funds become available.

Construction of the project will impact thirty-one stream segments totalling 18,386 linear feet and two forested wetlands totalling 1.7 acres. Job 20356 will impact six streams totalling 1,672 linear feet. Job 20357 will impact twenty-five streams totalling 16,714 linear feet and the two wetland areas. Nineteen of the streams impacted by this project are Coastal Plain intermittent. These streams generally flow continually during the winter and spring but only flow intermittently during the summer and fall after rainfall events. These intermittent streams include Hundley Creek, Sevenmile Creek, Dry Prong Creek, Twomile Creek and several unnamed tributaries that eventually flow into Hudgens Creek. One perennial stream, Tenmile Creek, and eleven unnamed ephemeral streams will be impacted. All of the streams are located within the Lower Saline 8-digit HUC; most are very sinuous and possess medium functions and values. Impacts will consist primarily of channeling and straightening for box culvert or bridge construction. The stream impacts will be mitigated in accordance with the credits calculated by utilizing the Little Rock District's Stream Evaluation Method and the wetlands impacts will be mitigated in accordance with the credits calculated by utilizing the Charleston Method. Copies of the stream and wetland impacts worksheets are attached as Sheets 7 through 14 of 14. The AHTD agrees to mitigate for all impacts either in the Lower Saline HUC or an adjacent 8-digit HUC. The AHTD will attempt to mitigate (6,580 stream credits) concurrently with construction on Job 20356. The AHTD will mitigate (78,842 stream credits) prior to construction on Job 20357. Wetland impacts on Job 20357 will be mitigated prior to construction at the Bayou Bartholomew Wetland and Stream Mitigation Area located immediately south of the I-69 Connector interchange in the City of Pine Bluff. The location and general plan for the proposed work are shown on the enclosed Sheets 1 through 6 of 14.

The I-69 Connector is a 40-mile stretch of interstate that, when completed, will extend from Pine Bluff to Monticello, Arkansas. A Final EIS, entitled *Southeast Arkansas I-69 Corridor*, was completed and approved by the FHWA on August 7, 2001 and is available for viewing at the

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AHTD central offices in Little Rock. During the planning stages and as part of the EIS process, the AHTD evaluated and held public meetings on several potential alternative alignments. As part of this process, extensive efforts were made to locate the alignment on the highest part of the Coastal Plain between the Bayou Bartholomew and Saline River watersheds in order to avoid major wetland and stream impacts.

Water Quality Certification. By copy of this public notice, the applicant is requesting water quality certification from the Arkansas Department of Environmental Quality (ADEQ) in accordance with Section 401(a)(1) of the Clean Water Act. Upon completion of the comment period and a public hearing, if held, a determination relative to water quality certification will be made. Evidence of this water quality certification or waiver of the right to certify must be submitted prior to the issuance of a Corps of Engineers permit.

Cultural Resources. The National Register of Historic Places has been consulted; and it has been determined that there are no properties currently listed in the Register, or eligible for inclusion therein, which would be affected by the proposed work. A Corps staff archeologist also will review topographic maps and data on reported sites in the area. If it is determined that further review is not warranted, these reviews will constitute the full extent of cultural resources investigation by this office unless we are made aware, as a result of comments received in response to this notice or by other means, of the existence of specific structures or sites which might be affected by the proposed work.

Endangered Species. Our preliminary determination is that the proposed activity will not affect listed Endangered Species or their critical habitat. A copy of this notice is being furnished to the U.S. Fish and Wildlife Service and appropriate state agencies and constitutes a request to those agencies for information on whether any listed or proposed-to-be-listed endangered or threatened species may be present in the area which would be affected by the proposed activity.

Flood Plain. We are providing copies of this notice to appropriate flood plain officials in accordance with 44 CFR Part 60 (Flood Plain Management Regulations Criteria for Land Management and Use) and Executive Order 11988 on Flood Plain Management.

Section 404(b)(1) Guidelines. The evaluation of activities to be authorized under this permit which involves the discharge of dredged or fill material will include application of guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. These guidelines are contained in 40 Code of Federal Regulations (CFR) 230.

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Public Involvement. Any interested party is invited to submit to the above-listed POC written comments or objections relative to the proposed work on or before **February 6, 2012.** Substantive comments, both favorable and unfavorable, will be accepted and made a part of the record and will receive full consideration in determining whether this work would be in the public interest. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act.

Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request in writing within the comment period specified in this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. The District Engineer will determine if the issues raised are substantial and whether a hearing is needed for making a decision.

**NOTE:** The mailing list for this Public Notice is arranged by state and county(s) where the project is located, and also includes any addressees who have asked to receive copies of all public notices. Please discard notices that are not of interest to you. If you have no need for any of these notices, please advise us so that your name can be removed from the mailing list.

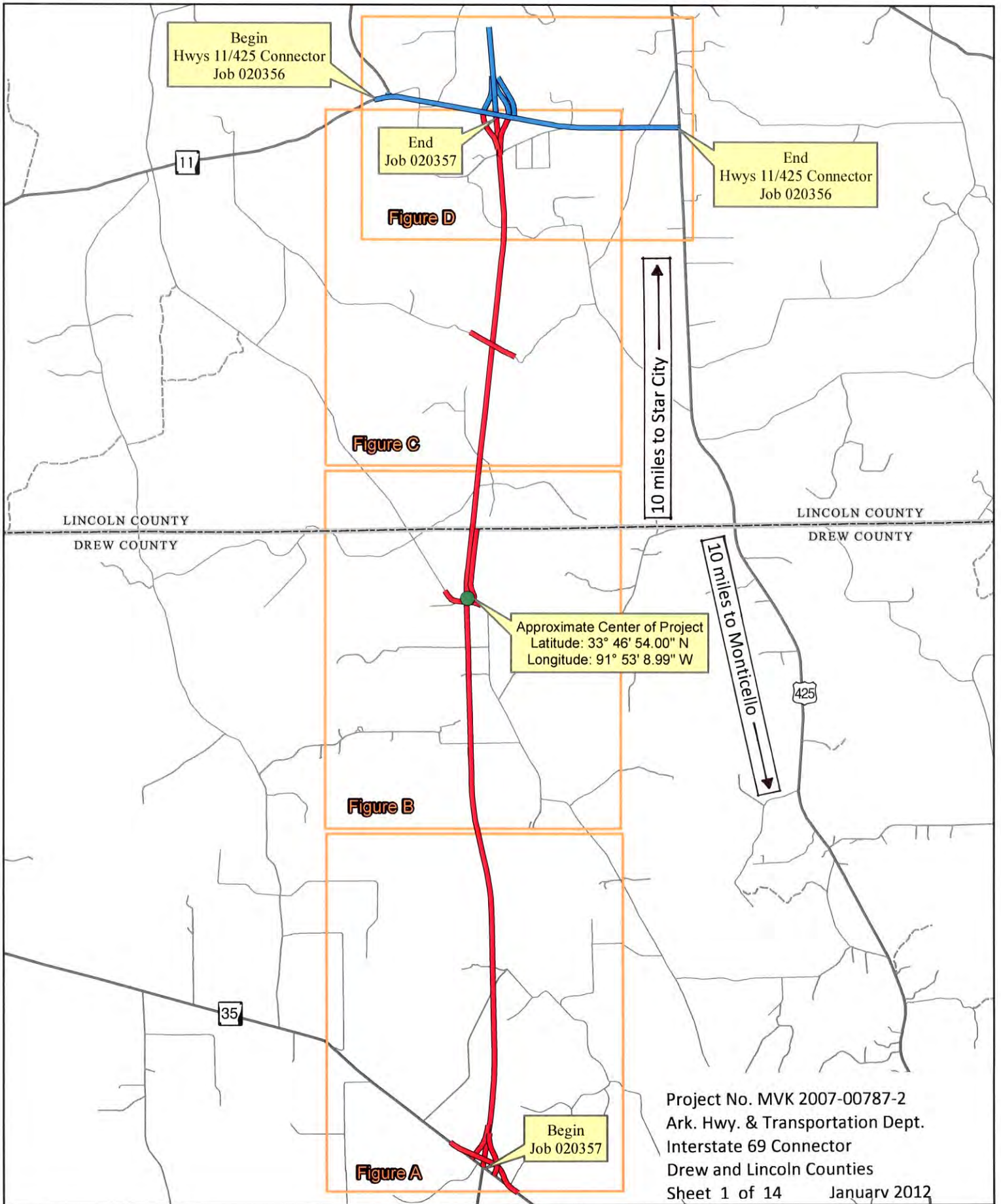
CESWL-RD

Enclosures

Approximate Coordinates of Project Center

Latitude: **33.78808884** Longitude: **-91.88486305**

UTM Zone: **15** Northing: **3739219.47** Easting: **603238.32**



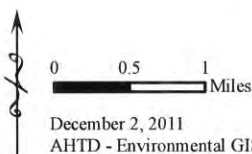
Stream Relocations and Wetlands

Job 020356

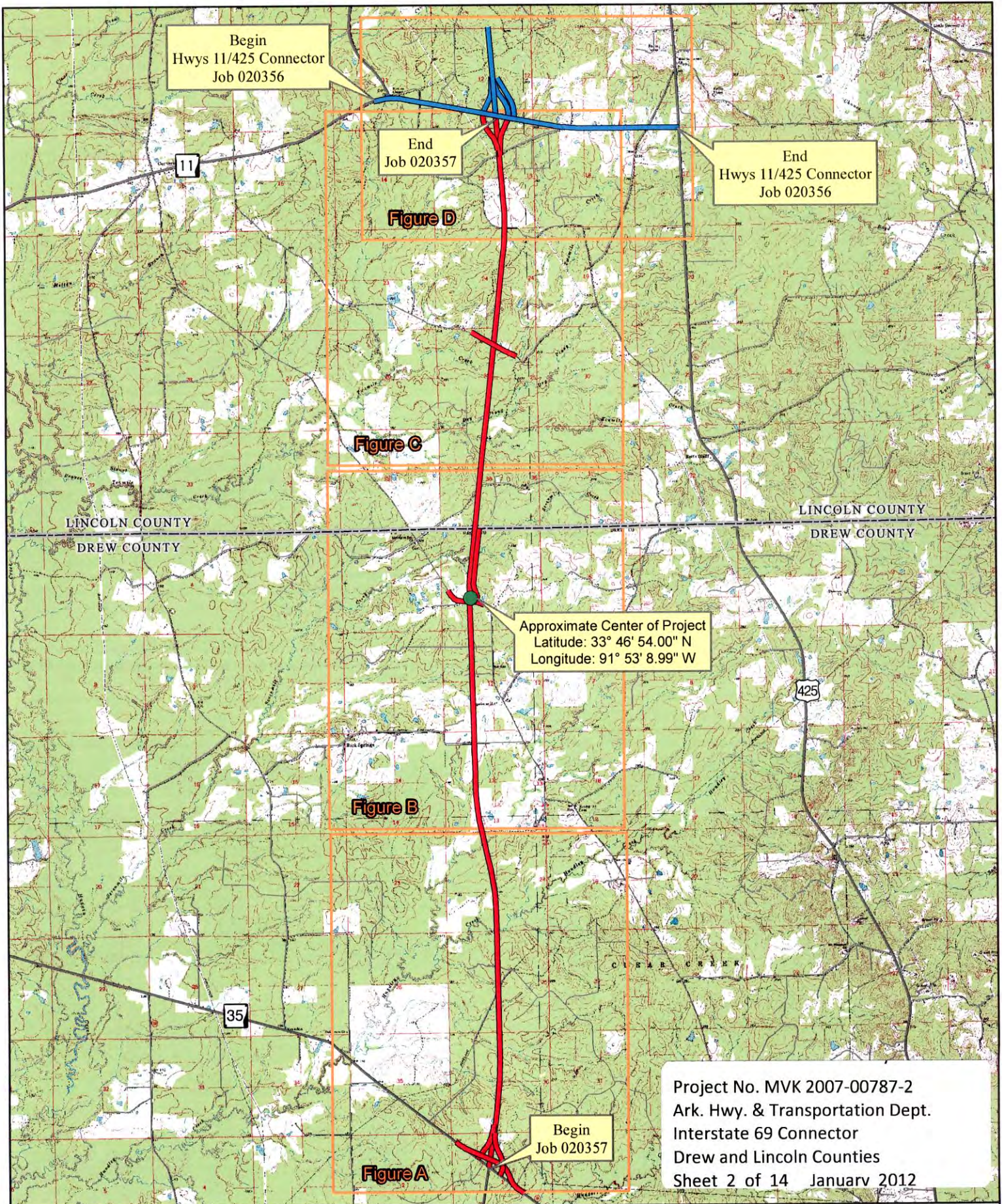
Hwy. 212 – Hwys. 11/425 Connector (Bs. & Surf)(Hwy. 530) and  
Job 020357

Hwys. 11/425 Connector – Hwy. 35 (Gr. & Strs.) (Hwy. 530)

Lincoln and Drew Counties





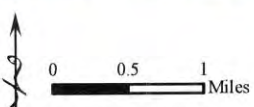
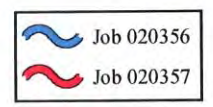


Project No. MVK 2007-00787-2  
 Ark. Hwy. & Transportation Dept.  
 Interstate 69 Connector  
 Drew and Lincoln Counties  
 Sheet 2 of 14 January 2012

Stream Relocations and Wetlands  
 Job 020356

Hwy. 212 – Hwys. 11/425 Connector (Bs. & Surf)(Hwy. 530) and  
 Job 020357

Hwys. 11/425 Connector – Hwy. 35 (Gr. & Strs.) (Hwy. 530)  
 Lincoln and Drew Counties



December 2, 2011  
 AHTD - Environmental GIS - Strawn



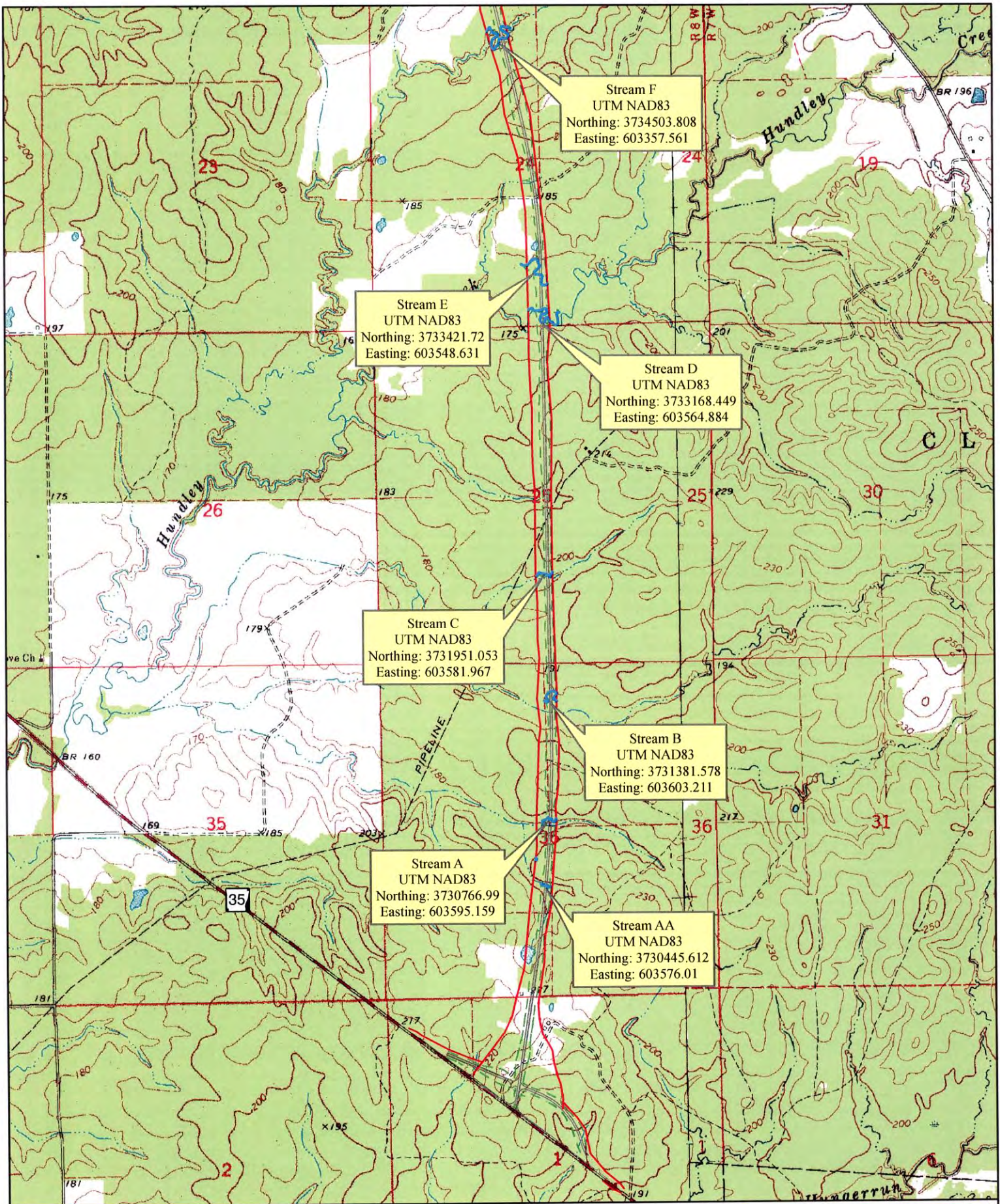
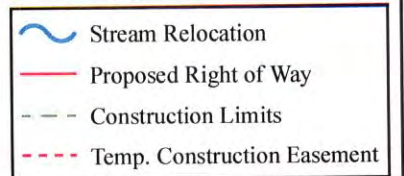


Figure A





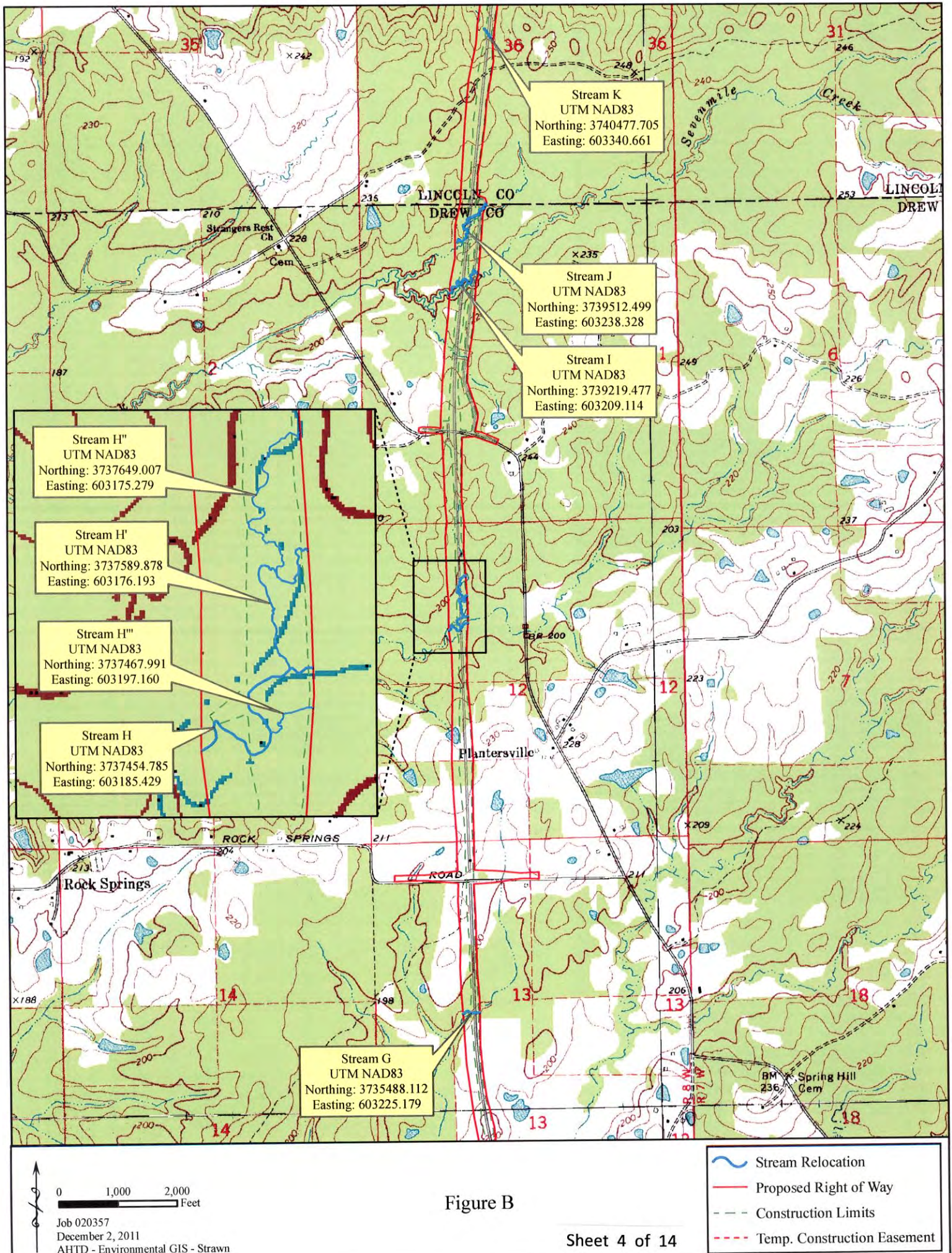
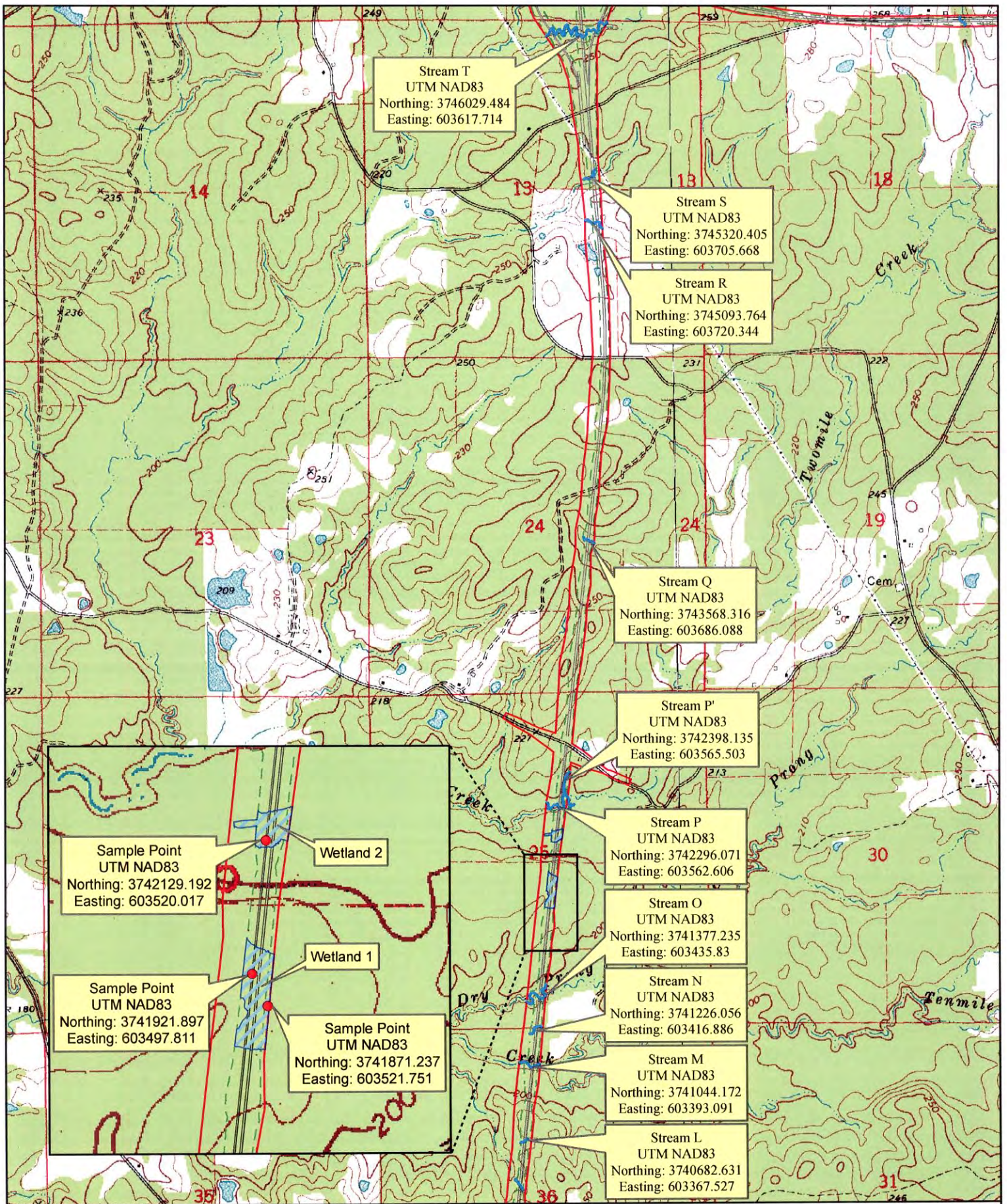


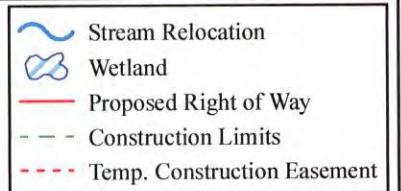
Figure B



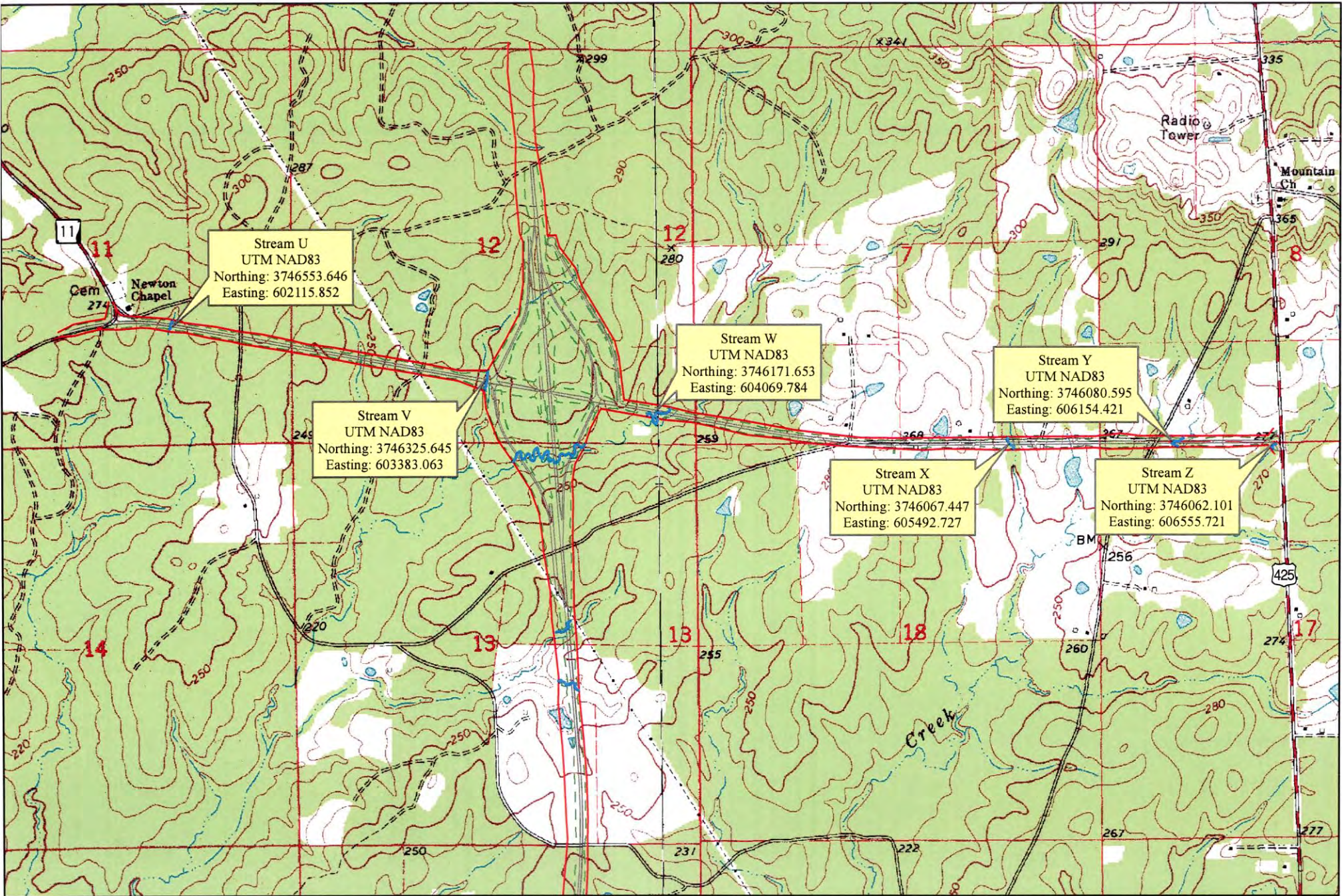


Job 020357  
December 2, 2011  
AHTD - Environmental GIS - Strawn

Figure C











0 850 1,700 Feet

Job 020356  
 December 2, 2011  
 AHTD - Environmental GIS - Strawn

Figure D

-  Stream Relocation
-  Proposed Right of Way
-  Construction Limits
-  Temp. Construction Easement



**ADVERSE IMPACT  
FACTORS FOR RIVERINE SYSTEMS WORKSHEET**

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial <15'   15'-30'   >30' 0.4   0.6   0.8		
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Impaired 0.1			Somewhat Impaired 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morphologic Change 1.5	Impoundment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

	U	V	W	X	Y
Factor	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	0.4	0.4	0.4	0.4	0.4
Priority Area	0.1	0.1	0.1	0.1	0.1
Existing Condition	0.8	0.8	0.1	0.8	0.1
Duration	0.3	0.3	0.3	0.3	0.3
Activity	2.5	2.5	2.5	2.5	2.5
Linear Impact	0.3	0.3	0.3	0.3	0.3
Sum of Factors	M = 4.4	4.4	3.7	4.4	3.7
Linear Feet of Stream Impacted in Reach	LF = 124	284	676	199	284
M X LF	545.6	1249.6	2501.2	875.6	1050.8

**Total Mitigation Credits Required = (M X LF) = 6,223**



**ADVERSE IMPACT  
FACTORS FOR RIVERINE SYSTEMS WORKSHEET**

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial <15'   15'-30'   >30' 0.4   0.6   0.8		
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Impaired 0.1			Somewhat Impaired 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morphologic Change 1.5	Impoundment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

Z

Factor	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	0.1				
Priority Area	0.1				
Existing Condition	0.1				
Duration	0.3				
Activity	2.5				
Linear Impact	0.3				
Sum of Factors	M = 3.4				
Linear Feet of Stream Impacted in Reach	LF= 105				
M X LF	357				

**Total Mitigation Credits Required = (M X LF) = 357**  
**GRAND TOTAL Job# 020356 = 6,580**

**ADVERSE IMPACT  
FACTORS FOR RIVERINE SYSTEMS WORKSHEET**

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial <15'   15'-30'   >30' 0.4   0.6   0.8		
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Impaired 0.1			Somewhat Impaired 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morphologic Change 1.5	Impoundment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

	AA	A	B	C	D
Factor	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	0.1	0.4	0.4	0.1	0.4
Priority Area	0.1	0.1	0.1	0.1	0.1
Existing Condition	0.8	0.8	0.8	0.1	0.8
Duration	0.3	0.3	0.3	0.3	0.3
Activity	2.5	2.5	2.5	2.5	2.5
Linear Impact	1.1	1.1	1.1	1.1	1.1
Sum of Factors	M = 4.9	5.2	5.2	4.2	5.2
Linear Feet of Stream Impacted in Reach	LF = 275	395	589	393	1237
M X LF	1347.5	2054	3062.8	1650.6	6432.4

**Total Mitigation Credits Required = (M X LF) = 14,547**



**ADVERSE IMPACT  
FACTORS FOR RIVERINE SYSTEMS WORKSHEET**

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial <15' 0.4   15'-30' 0.6   >30' 0.8		
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Impaired 0.1			Somewhat Impaired 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morphologic Change 1.5	Impoundment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

	E	F	G	H	H'
Factor	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	0.1	0.4	0.4	0.4	0.4
Priority Area	0.1	0.1	0.1	0.1	0.1
Existing Condition	0.8	0.8	0.8	0.8	0.8
Duration	0.3	0.3	0.3	0.3	0.3
Activity	2.5	2.5	2.5	2.5	2.5
Linear Impact	1.1	1.1	1.1	0.9	0.9
Sum of Factors	M = 4.9	5.2	5.2	5.0	5.0
Linear Feet of Stream Impacted in Reach	LF= 981	1317	334	710	616
M X LF	4806.9	6848.4	1736.8	3550	3080

**Total Mitigation Credits Required = (M X LF) = 20,022**

**ADVERSE IMPACT  
FACTORS FOR RIVERINE SYSTEMS WORKSHEET**

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial <15'   15'-30'   >30' 0.4   0.6   0.8		
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Impaired 0.1			Somewhat Impaired 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morphologic Change 1.5	Impoundment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

Factor	H''	H'''	I	J	K
	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	0.4	0.1	0.4	0.4	0.1
Priority Area	0.1	0.1	0.1	0.1	0.1
Existing Condition	0.8	0.8	0.8	0.8	0.1
Duration	0.3	0.3	0.3	0.3	0.3
Activity	2.5	2.5	2.5	2.5	2.5
Linear Impact	0.9	0.9	0.9	0.9	0.4
Sum of Factors	M = 5.0	4.7	5.0	5.0	3.5
Linear Feet of Stream Impacted in Reach	LF = 656	187	1113	1442	233
M X LF	3280	878.9	5565	7210	815.5

**Total Mitigation Credits Required = (M X LF) = 17,749**



**ADVERSE IMPACT  
FACTORS FOR RIVERINE SYSTEMS WORKSHEET**

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial <15' 0.4   15'-30' 0.6   >30' 0.8		
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Impaired 0.1			Somewhat Impaired 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morphologic Change 1.5	Impoundment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

	L	M	N	O	P
Factor	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	0.1	0.6	0.4	0.4	0.4
Priority Area	0.1	0.1	0.1	0.1	0.1
Existing Condition	0.1	0.8	0.8	0.8	0.8
Duration	0.3	0.3	0.3	0.3	0.3
Activity	2.5	2.5	2.5	2.5	2.5
Linear Impact	0.4	0.4	0.4	0.4	0.3
Sum of Factors	M = 3.5	4.7	4.5	4.5	4.4
Linear Feet of Stream Impacted in Reach	LF= 144	388	298	872	974
M X LF	504	1823	1341	3924	4285.6

**Total Mitigation Credits Required = (M X LF) = 11,878**



**ADVERSE IMPACT  
FACTORS FOR RIVERINE SYSTEMS WORKSHEET**

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial <15' 0.4   15'-30' 0.6   >30' 0.8		
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Impaired 0.1			Somewhat Impaired 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morphologic Change 1.5	Impoundment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

	P'	Q	R	S	T
Factor	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	0.1	0.1	0.1	0.1	0.4
Priority Area	0.1	0.1	0.1	0.1	0.1
Existing Condition	0.8	0.8	0.8	0.8	0.1
Duration	0.3	0.3	0.3	0.3	0.3
Activity	2.5	2.5	2.5	2.5	2.5
Linear Impact	0.3	0.3	0.6	0.6	0.6
Sum of Factors	M = 4.1	4.1	4.4	4.4	4.0
Linear Feet of Stream Impacted in Reach	LF= 485	258	463	365	1989
M X LF	1988.5	1057.8	2037.2	1606	7956

**Total Mitigation Credits Required = (M X LF) = 14,646**  
**Grand Total Job#020357 = 78,842**



## Calculation of Debits

ADVERSE IMPACT FACTORS FOR WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

FACTORS	OPTIONS					
Lost Type	Type C 0.2		Type B 2.0		Type A 3.0	
Priority Category	Tertiary 0.5		Secondary 1.5		Primary 2.0	
Existing Condition	Very Impaired 0.1	Impaired 1.0		Slightly Impaired 2.0	Fully Functional 2.5	
Duration	Seasonal 0.1	0 to 1 0.2	1 to 3 0.5	3 to 5 1.0	5 to 10 1.5	Over 10 2.0
Dominant Impact	Shade 0.2	Clear 1.0	Dredge 1.5	Drain 2.0	Impound 2.5	Fill 3.0
Cumulative Impact	$0.05 \times \sum AA_i$					

### REQUIRED MITIGATION CREDITS WORKSHEET

Factor	Area 1	Area 2
Lost Type	2.0	2.0
Priority Category	0.5	0.5
Existing Condition	2.5	2.5
Duration	2.0	2.0
Dominant Impact	3.0	3.0
Cumulative Impact	0.1	0.1
Sum of r Factors	$R_1 = 10.1$	$R_2 = 10.1$
Impacted Area	$A_1 = 1.7$	$A_2 = 0.8$
R x AA =	17.2	8.08

**Total Required Credits =  $\sum (R \times AA) =$  25.3**