ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Dan Flowers Director Phone (501) 569-2000 Fax (501) 569-2400



P.O. Box 2261 Little Rock, Arkansas 72203-2261 WWW.ARKANSASHIGHWAYS.COM

September 22, 2008

Ms. Sandra Otto Division Administrator Federal Highway Administration 3128 Federal Office Building Little Rock, Arkansas 72201

Re: AHTD Job Number 012091
FAP Number NH-2027(3)
Hwy. 48– Sheridan Bypass
NEPA Study
Dallas and Grant Counties
Tier Three Categorical Exclusion

Dear Ms. Otto:

The Environmental Division has reviewed the referenced project and it falls within the definition of a Tier 3 Categorical Exclusion as defined by the AHTD/FHWA Memorandum of Agreement on the processing of Categorical Exclusions. The following information is included for your review and, if acceptable, approval as the environmental documentation for this project.

The purpose of this project is to widen highway 167 from Highway 48 to the future location of the Sheridan Bypass and replace seven bridges. Total length of this project is 11.9 miles (19.2 kilometers).

The existing Highway 167 consists of two 12-foot (3.6-meter) wide travel lanes with eight-foot (2.4 meter) wide shoulders. The existing right of way along the route is

AHTD Job Number 012091 Tier Three Categorical Exclusion Page 2 of 4

130 feet (40 meters). The existing bridge structure locations and descriptions are listed in Table 1.

	Table 1						
	Existing Bridge Information						
Bridge No.	Sufficiency Rating	Stream	Existing Structure				
1356	NQ 60.1	Saline River Relief	28' x 166' (8.5 m x 50.6 m) reinforced concrete deck girders (RCDG) supported by concrete pile bents				
1355	NQ 60.1Saline River ReliefNQ 60.1Saline River ReliefNQ 60.1Gamble CreekNQ 62.1Gamble Creek Relief		28' x 265' (8.5 m x 80.7 m) RCDG supported by concrete pile bents				
1354			28' x 199.' (8.5 m x 60.6 m) RCDG supported by concrete pile bents				
1350			28' x 481' (8.3m x 146.6 m) RCDG supported by concrete pile bents				
1351			28' x 151 (8.5 m x 46.0 m) RCDG supported by concrete pile bents				
1352	NQ 70.1	Gamble Creek	28' x 91' (8.5 m x 27.7m) RCDG supported by concrete pile bents				
1353	NQ 58.9	Gamble Creek	28' x 91' (8.5 m x 27.7m) RCDG supported by concrete pile bents				

The proposed improvements will consist of four 12-foot (3.6-meter) wide paved travel lanes, an 11-foot (3.3-meter) continuous turn lane and eight foot (2.4 meter) wide shoulders. The new right of way will vary between 140' to 260' (42.6 m to 79.2 m). A description and location of the proposed bridge structures are listed in Table 2. Design data for this project is found in Table 3.

There are no endangered species, cultural resources or environmental justice issues associated with this project. Approximately 35 (14 hectares) of prime farmland will be acquired for right of way. Form NRCS-CPA-106, the Farmland Conversion Impact Rating, is enclosed. Field inspections found evidence of five possible underground storage tanks sites. Underground storage tanks will be removed in accordance with Arkansas Department of Environmental Quality regulations. One business and one residential owner will be relocated as a result of this project. Public law 91-646, Uniform Relocation Assistance Act of 1970, as amended, will apply. A public involvement meeting was held for this project on June 24, 2008; a synopsis of the meeting is enclosed. A noise analysis is also enclosed.

Table 2					
	Proposed Bridge Information				
Bridge No.	Stream	Proposed Structure			
1356	Saline River Relief	75' x 182' (22.8 m x 55.5 m) concrete girders on concrete pile bents			
1355	Saline River Relief	75' x 302' (22.8 m x 92.0 m) concrete girders on concrete pile bents			
1354	354 Saline River Relief	75' x 242' (22.8 m x 73.8 m) concrete girders on concrete pile bents			
1350	Gamble Creek	75' x 542' (22.8 m x 165.2 m) concrete girders on concrete pile bents			
1351	Gamble Creek Relief	75' x 180' (22.8 m x 54.9 m) concrete girders on concrete pile bents			
1352	Gamble Creek	75' x 111' (22.8 m x 33.8 m) concrete girders on concrete pile bents			
1353	Gamble Creek	75' x 111' (22.8 m x 33.8 m) concrete girders on concrete pile bents			

Table 3						
	Design Information					
Design Year	Average Daily Traffic	Percent Trucks	Design Speed			
2009	5,300	22	60 mph (100 kmph)			
2029	7,000	22	60 mph (100 kmph)			

Construction of this project will impact approximately 39 acres(15.7) of wetlands and have multiple waters of the United States stream crossings. The wetland impacts are unavoidable and will be mitigated at the Middle Ouachita River Mitigation Bank.

AHTD Job Number 012091 Tier Three Categorical Exclusion Page 4 of 4

Construction should be allowed under the terms of an Individual Section 404 Permit. A Wetlands Assessment is enclosed.

If you have any questions, please contact the Environmental Division at 569-2281.

APPROVED **Environmental Specialist** Federal Highway Administration 08 9/26 Date:

Sincerely,

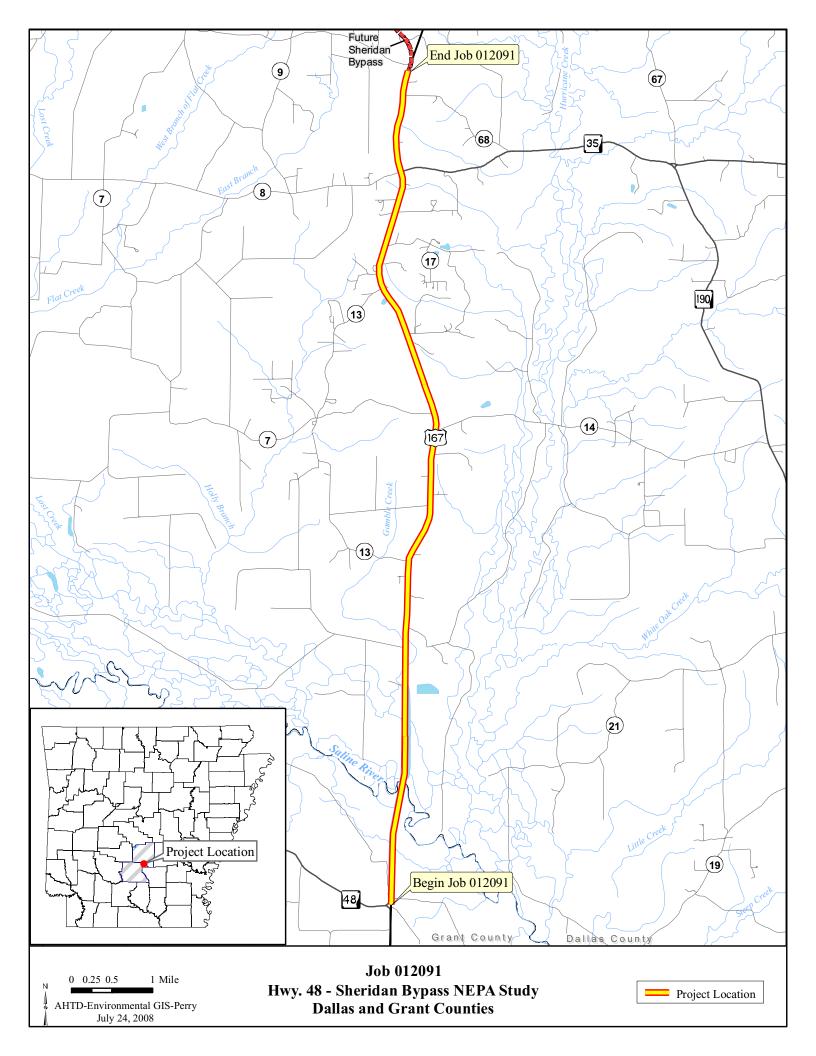
Lynn P. Malbrough Division Head

Division Head Environmental Division

· .;

Enclosures LPM:JB:trb

c: Programs and Contracts Right of Way Roadway Design District Two District Seven





The Department of Arkansas Heritage

Mike Boebe Governor

Cathie Matthews Director

Arkansas Arts Council

Arkansas Natural Heritage Commission

Delta Cultural Center

Historic Artanças Moseum

Mosaie Templars Cultural Center

Old State House Museum



Arkansas Historic Preservation Program

1500 Tower Building 323 Center Street Little Rock, AR 72201 (501) 324-9890 fux: (501) 324-9884 tdd: (501) 324-9811 e-mail: info@arkansasprepervation.org website: www.arkansaspreservation.com

An Equal Opportunity Employer



September 10, 2008

Mr. Lynn P. Malbrough Division Head Environmental Division Arkansas State Highway and Transportation Department P.O. Box 2261 Little Rock, Arkansas 72203-2261

RE: Multi County – Sheridan Report Entitled "A Cultural Resources Survey of AHTD Job Number 012091, Hwy. 48 – Sheridan Bypass, State Highway 167, Grant and Dallas Counties, Arkansas" AHPP Project Number 66379

Dear Mr. Malbrough:

My staff has reviewed the referenced cultural resources survey report. It is thorough, comprehensive, and well written. We also concur with the findings and conclusions presented therein. With the stipulation that Structure M (a property that is eligible for inclusion in the National Register of Historic Places) be avoided and protected and that archeological monitoring be done during construction, we have no objection to the proposed undertaking.

Thank you for your interest and concern for the cultural heritage of Arkansas. If you have any questions, please contact George McCluskey of my staff at (501) 324-9880.

Sincerely,

Francesmesevan

Frances McSwain Deputy State Historic Preservation Officer

cc: Federal Highway Administration Quapaw Tribe of Oklahoma Tunica-Biloxi Tribe of Louisiana, Inc. U.S. DEPARTMENT OF ADRICULTURE Natural Resources Conservation Service

Service

NRCS-CPA-105 (Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

	ON CONSIDER IT	FE FROVEGTO	·		
PART I (To be completed by Federal Agency)	512091	ale of Cand Evaluation	Request 7/	30 05 Sheet 1	of
1. Name of Project HWY 48 - Sher	to Bross	deral Agency Involve	FITW	A	
1. Name at Project Huy 48 - Sher 2. Type of Project Huy Willering PART II (To be completed by NRCS)	-70 B.C	ounty and State	Dulles	Brent	
PART II (To be completed by NRCS)	1.01	te Request Received t	WINCS 2. I	Person Completing For	n
 Does the corridor contain prime, unique statewide or loca (if no, the FPPA does not apply - Do not complete additional activity) 	al important farmland?	YES . NO .	4.7	Acres Imigated Average	Farm Size
5. Major Crop(s)	6. Farmable Land in Go	remment Jurisdiction	7. A	mount of Farmland As I	Defined in FPPA
	Acres:	*		Acros	*
		sseament System	10, 1	Date Land Evaluation R	elumed by NRCS
		Alternat	ive Corridor i	For Segment	
PART III (To be completed by Federal Agency)		Corridor A	Corridor E		Corridor D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly, Or To Receiv	re Servicea				
G. Total Acres In Corridor		0	0	0	0
PART IV (To be completed by NRCS) Lend Evalu	ation Information] –	1 A 1 A 1	
A. Total Acres Prime And Unique Farmland		34.92			
B. Total Acres Statewide And Local Important Farmian	đ	137.71			
C. Percentage Of Farmland in County Or Local Govt. U				-	-
D. Percentage Of Farmland in Govt, Jurisdiction With Sc		e			
PART V (To be completed by NRCS) Land Evaluation I	The second se				
value of Farmland to Be Serviced or Converted (Scal					
PART VI (To be completed by Federal Agency) Corr	ider Maximu				
Assessment Criteria (These criteria are explained in			1		
1. Area in Nonurban Use	15	175			
2. Perimeter in Nonurban Use	10	110			
3. Percent Of Corridor Being Farmed	20	10			
4. Protection Provided By State And Local Governm	ent 20	0	1		
5. Size of Present Farm Unit Compared To Average	10	0			-
5. Creation Of Nonfarmable Farmland	25	0			
7. Availability Of Farm Support Services	5	5	Î		1.00
8. On-Farm Investments	20	0			
9. Effects Of Conversion On Farm Support Services	25	Q			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	040	0	Ō	0
PART VII (To be completed by Federal Agancy)					1
Relative Value Of Farmland (From Part V)	100	100		-	
Total Corridor Assessment (From Part VI above or a lo assessment)	ncal site 160	0 40	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	0 140	0	0	0
1. Corridor Selected: 2. Total Acres of Fi Converted by Pr		X Selection:	4. Was A Loo	al Ste Assessment Us	ed?
Etisting Loc. 14.13 H	Acres	30/00	Y		

5. Reason For Selecton:

Signatury of Parson Ayregisting this Part	DATE
Achts	7/30/08
NOTE: Complete a form for each segment with more than one Alternate Corridor	

PUBLIC INVOLVEMENT MEETING SYNOPSIS

Job Number 012091 Hwy. 48-Sheridian bypass NEPA Study (Hwy. 167) Dallas and Grant Counties June 24, 2008

An open forum public involvement meeting for the proposed Highway 167 improvement was held at the Hope Pentecostal Church in Sheridan, Arkansas from 4:00 p.m.-7:00 pm on June 24, 2008. Media news releases, flyers, and radio public service announcements were utilized to inform the general public of the meeting. Special efforts to involve minorities and the public in the meeting included the following:

- Displays advertisement placed in the Sheridan Headlight on Wednesday, June 11, 2008 and Wednesday, June 18, 2008.
- Distribution of flyers in the area.
- Outreach to minority minister letters.

The following information was available for inspection and comments.

- Displays including aerial photographs at a scale of 1 inch equals 1,500 feet, that illustrated the project location.
- Preliminary plans at a scale of one-inch equals ten feet.

Handouts for the public included a comment sheet and a small-scale map illustrating the project alternatives, which was identical to the aerial photograph display. Copies of the handouts are attached.

Table 1 describes the results of the public participation at the meeting.

TABLE 1	
Public Participation	Totals
Attendance at meeting (including AHTD staff)	65
Comments received at meeting	6
Additional comments received after meeting	24
Total comments received	30

AHTD staff reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is

Job Number 012091- PI Meeting Synopsis June 24, 2008 Page 2 of 2

random and is not intended to reflect importance or numerical values. Some of the comments were combined and/or paraphrased to simplify the synopsis process.

Table 2	
Survey Results	Totals
Widening of Highway 167 needed	21
Widening of Highway 167 not needed	8

An analysis of the responses received as a result of the public survey is shown in Table 2.

The following is a listing of comments concerning issues associated with this project:

- Eight individuals thought the curve south of Highway 35 at Crossroads should be straightened. Three individuals in this area were concerned about their truck repair business; about the ability to get trucks and trailers in and out of their businesses safely and having enough remaining property to maneuver the trucks. They requested the curve be straightened by taking open land to the west, thus minimizing the impacts to their property.
- Nine individuals were concerned that too much frontage/land would be taken.
 Four individuals suggested shifting the ROW to the west side to avoid greater impacts to businesses and homes.
- One individual thought a signal was needed at Highway 35/167 at Crossroads.
- · Two individuals thought there was not enough traffic to warrant four lanes.
- · One individual was concerned about his cattle stock pond.
- · One individual was concerned about the cost.
- · One individual was concerned about water well on east side of road.
- One individual said archeological and civil war artifacts could be found up and down the highway.
- · One individual said there was asbestos in old Wilson Store.
- · One individual was concerned about his septic tank.

Attachments: Blank comment form

Small-scale project location handout

JB:

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT (AHTD)

CITIZEN COMMENT FORM

AHTD JOB NUMBER 012091 Hwy. 48- Sheridan Bypass NEPA Study (Hwy. 167) Dallas & Grant Counties

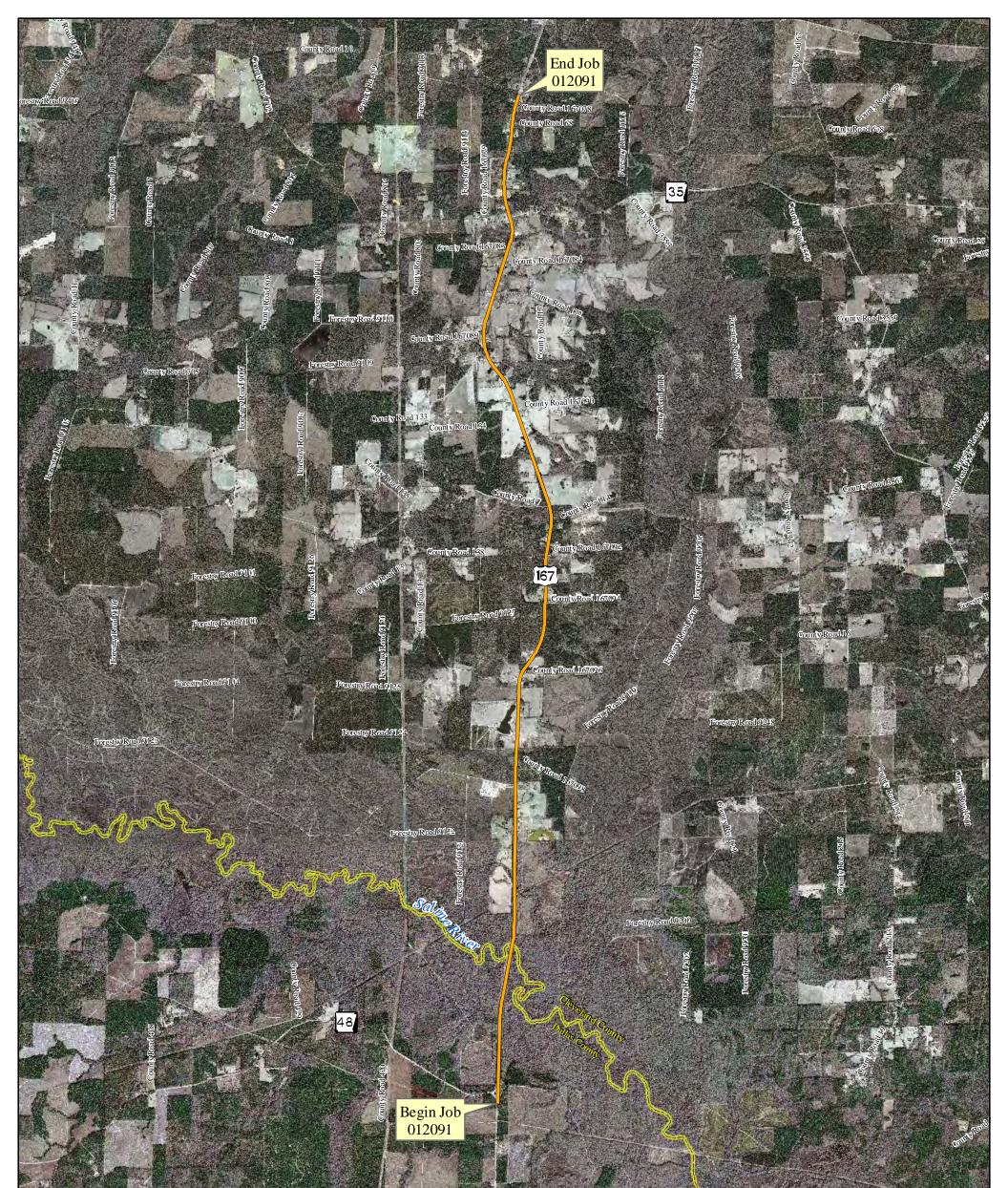
LOCATION:

HOPE PENTECOSTAL CHURCH 19 GRANT ROAD SHERIDAN, AR 4:00 – 7:00 p.m. TUESDAY, JUNE 24, 2008

Make your comments on this form and leave it with AHTD personnel at the meeting or mail it within 15 days to: Arkansas State Highway and Transportation Department, Environmental Division, Post Office Box 2261, Little Rock, Arkansas 72203-2261.

Yes	No	Do you feel there is a need for the proposed widening of Highway 167 from Highway 48 to the Sheridan Bypass? Comment (optional)
		Do you know of any historical sites, family cemeteries, or archaeological sites in the project area? Please note and discuss with staff.
		Do you know of any environmental constraints, such as endangered species, hazardous waste sites, existing or former landfills, or parks and public lands in the vicinity of the project? Please note and discuss with AHTD staff.
		Do you feel that the proposed widening of Hwy. 167 will have any impacts (Beneficial or Adverse) on your property and/or community (economic, environmental, social, etc.)? Please explain.

Yes	No	
		Do you have a suggestion that would make this proposed project better serve the needs of the community?
you are	a pro	essary for the AHTD to contact property owners along potential routes. If perty owner along or adjacent to the route under consideration, please ation below. Thank you.
Name :		(Please Print)
Address	s:	Phone: ()
F		
E-mail:		
Please	make a	additional comments here
110030		



0 1,250 2,500 5,000 Feet AHTD Environmental GIS - Strawn Map Date: June 17, 2008 Meeting Date: June 24, 2008 Public Involvement Handout	(CHID)	Job 012091 Hwy. 48 - Sheridan Bypass NEPA Study Dallas, Grant County	Preliminary Subject to Revision	Project Location Photography Date: January 15th - March 31th
Notes:				

Noise Analysis

No. Millerville-Sheridan Bypass (S)

AHTD Job Number 012091

Grant County

Noise predictions have been made for this project utilizing the Federal Highway Administration's Traffic Noise Model 2.5 procedures, existing and proposed roadway information, existing traffic data and the traffic projections for the design year of 2025. The noise investigation reveals that the 67 dBA Leq design year noise abatement criteria (NAC) will occur 157 feet (48 meters) from the centerline of the proposed project. The proposed cross-section consists of four 12-foot (3.6 meter) wide travel lanes and an 11-foot (3.3 meter) wide continuous turn- lane with 8-foot (2.4 meter) wide shoulders. Forty sensitive receptors located along the proposed project location are predicted to experience noise levels which will approach or exceed 67 dBA during the design year. The term "approach" is considered to be one dBA less than the NAC.

Any noise abatement efforts using barrier walls or berms are not warranted for this project. This is due to the low density of development and to the need to provide direct access to adjacent properties. In order to provide direct access to adjacent properties, breaks in the barrier walls or berms would be required. These necessary highway access breaks would render any noise barrier ineffective.

To avoid noise levels in excess of design levels, any future receptors should be located a minimum of 170 feet (52 meters) from the centerline of the proposed project location. This distance should be used as a general guide and not a specific rule, since the noise will vary depending upon the roadway grades and other noise contributions.

Any excessive project noise, due to construction operations, should be of short duration and have a minimum adverse effect on land uses or activities associated with this project area.

In compliance with Federal guidelines, a copy of this analysis will be transmitted to the Southeast Arkansas Economic Development District for possible use in present and future land use planning.

WETLANDS ASSESSMENT PURSUANT TO SECTION 404 CLEAN WATER ACT

AHTD JOB NUMBER 012091 HWY. 48 - SHERIDAN BYPASS NEPA STUDY (HWY. 167) DALLAS and GRANT COUNTIES

This analysis finds that there is no practicable alternative to construction in wetlands adjacent to Highway 167 in Dallas and Grant Counties. This finding is in accordance with Executive Orders 11990 on Protection of Wetlands and 11988 on Management of Floodplains.

Description of the Project

Refer to the Categorical Exclusion for the description of the project.

Project Area

This project is located in the West Gulf Coastal Plain (Coastal Plain) Natural Division (State of Arkansas 1974) and the Gulf Coastal Plain Ecoregion (State of Arkansas 1987). The impact areas along the project are open water/vegetated borrow ditches, bottomland hardwood wetlands, and herbaceous wetlands. The bottomland hardwood wetlands are primarily associated with river and/or stream floodplains. The majority of impacts are in the open water/vegetated borrow ditches. See attached wetland location map.

Description of Wetlands

Wetlands affected by this project are open water/vegetated borrow ditches, bottomland hardwood wetlands, and herbaceous wetlands. Dominant vegetation in the borrow ditches includes button bush (*Cephalanthus occidentalis*), black willow (*Salix nigra*), bald cypress (*Taxodium distichum*), and smartweed (*Polygonum spp.*). Figure 1 shows typical photographs of the vegetated borrow ditch wetlands.

The dominant vegetation in the bottomland hardwood wetlands includes bald cypress, willow oak (*Quercus phellos*), water oak (*Quercus nigra*), overcup oak (*Quercus lyrata*), sweet gum (*Liquidambar styracilflua*), green ash (*Frankinus pennsylvanica*), and American elm (*Ulmus americana*). Figure 2 shows typical photographs of the bottomland hardwood wetlands.

The dominant vegetation in the herbaceous wetlands includes soft rush (Juncus spp.) and various sedges (Carex spp.). Figure 3 shows a typical photograph of the herbaceous wetlands.

Alternatives Considered

The Do-Nothing Alternative would not alleviate the traffic volume problems associated with Highway 167. The widening will be on existing alignment. Wetlands are on both sides of Highway 167 in the project area. No other alignment alternatives were considered. New location alignments would have greater impacts to the surrounding wetlands and streams.

2

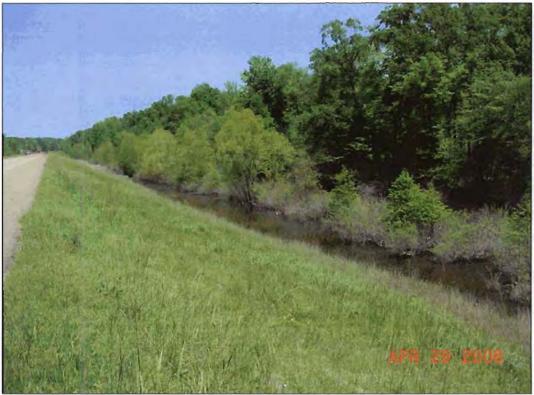


Figure 1a. Typical Photograph of Vegetated Borrow Ditch Wetlands.



Figure 1b. Typical Photograph of Vegetated Borrow Ditch Wetlands.



Figure 2a. Typical Photograph of Forested Wetlands Behind Borrow Ditch.



Figure 2b. Typical Photograph of Forested Wetlands.



Figure 3. Typical Photograph of Herbaceous Wetlands.

Impacts

Construction of this project will permanently impact approximately 45 acres (18 hectares) of wetlands. The majority of wetland impacts will be to vegetated and open water borrow ditches. There will be approximately 40 acres (16 hectares) of wetland impacts to vegetated/open water borrow ditch wetlands. There will be approximately 2 acres (1 hectare) of wetland impacts to bottomland hardwood wetlands. There will be approximately 3 acres (1 hectare) of wetland impacts to herbaceous wetlands.

Water quality will be temporarily impacted during construction due to the placement of permanent and temporary fill and excavation during channel improvements. Water quality will not be permanently impacted by construction of this project, and it is expected to return to normal levels immediately following completion of the project.

Mitigation

Mitigation for unavoidable wetlands impacts due to the proposed project is offered at the Middle Ouachita River Mitigation Bank (MORMB). Mitigation credits were calculated on impacting 40 acres of vegetated borrow ditch wetlands, 2 acres of bottomland hardwood wetlands, and 3 acres of herbaceous wetlands. Mitigation credits were calculated using the Charleston Method. Total mitigation credits debited from the MORMB will be at a ratio of 2.5:1 acres.

Conclusion

Construction in wetlands discussed in this document is unavoidable. Construction of the proposed project should not permanently impact the functional integrity of the wetland system in the project area. Construction should be allowed under the terms of an Individual Permit.

LITERATURE CITED

State of Arkansas

1974 <u>Arkansas Natural Area Plan</u>. Arkansas Department of Planning. Little Rock, Arkansas. 247p.

State of Arkansas

1985 <u>Physical, Chemical, and Biological Characteristics of Least-Disturbed</u> <u>Reference Streams in Arkansas Ecoregions, Volume II: Data Analysis</u>. Arkansas Department of Pollution Control and Ecology. 148p.

Job 012091

Calculating Required Mitigation Credits (Debits) - Middle Ouachita River

Definitions

Cumulative impact factor, $\sum AA_i$ stands for the sum of the acres of adverse impacts to aquatic areas for the overall project. When computing this factor, round to the nearest tenth decimal place using even number rounding. Thus 0.01 and 0.050 are rounded down to give a value of zero while 0.051 and 0.09 are rounded up to give 0.1 as the value for the cumulative impact factor. The cumulative impact factor for the overall project must be used in each area column on the Required Mitigation Credits Worksheet.

1986 **Duration** means the length of time adverse impacts will last (in years).

Dominant impact factors include fill, impound, drain, dredge, clear, and shade.

Existing Condition means the degree of disturbance.

- *Fully functional* means the system type is functionally naturally. Examples: pristine wetlands or riverine habitats, wetlands with no effective drainage.
- *Slightly impaired* means site disturbances have occurred but functional recovery could be reversed through natural processes, such as clear-cut wetlands, utility corridors, wetlands with ditches that impair but don't eliminate wetland hydrology.
- *Impaired* means functional recovery from disturbance is unlikely to occur naturally. Bedded pine monoculture, severely fragmented areas, channelized streams. Vegetated ditches are here included.
- *Very impaired* means full recovery would require major restoration effort. Filled areas, drained wetlands.

Lost Type categories are based on the suite of functions that they perform.

<i>Type A</i> includes:	Riverine systems including headwaters and riparian zones
	Bottomland hardwoods
Type B includes:	Seeps and bogs
	Savannahs and flatwoods
	Depressions
	Pocosins and bays
Type C includes:	Man-made lakes and ponds
	Vegetated lake littoral
	Impoundments

Other habitat types need to be evaluated and assigned a category ranking. Farmed wetlands and vegetated ditches are here defined as Type C. Scrub-Shrub wetlands are here defined as Type B.

Priority Category means designated areas of aquatic systems that provide functions of recognized importance because of their inherent functions, their position in the landscape, or their rarity.

Primary priority areas provide important contributions to biodiversity or high levels of functions contributing to landscape or human values. Examples include Wild and

Scenic Rivers, Heritage or TNC natural areas, national wildlife refuges, old growth communities, etc.

Secondary priority areas include bay forest, high elevation seep, pond cypress pond, upland depression swamp forest, etc.

Tertiary priority areas include cypress-tupelo swamps, bottomland hardwood, pine flatwoods, etc.

Calculation of Debits

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

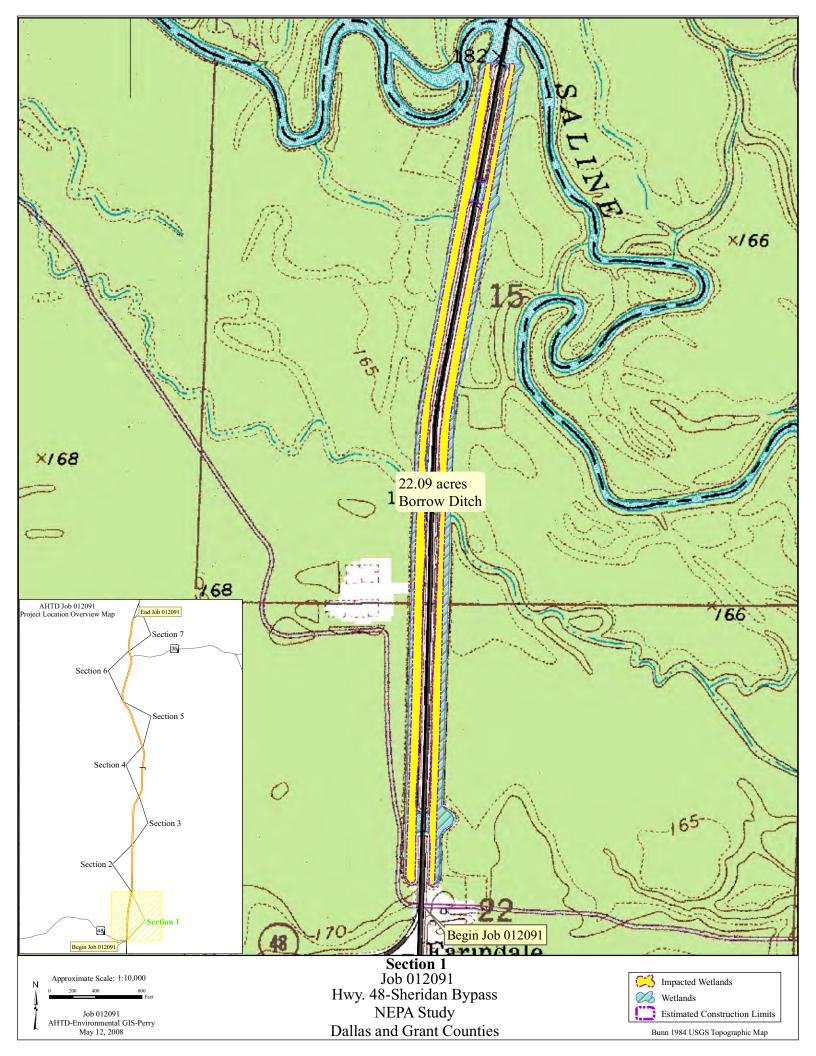
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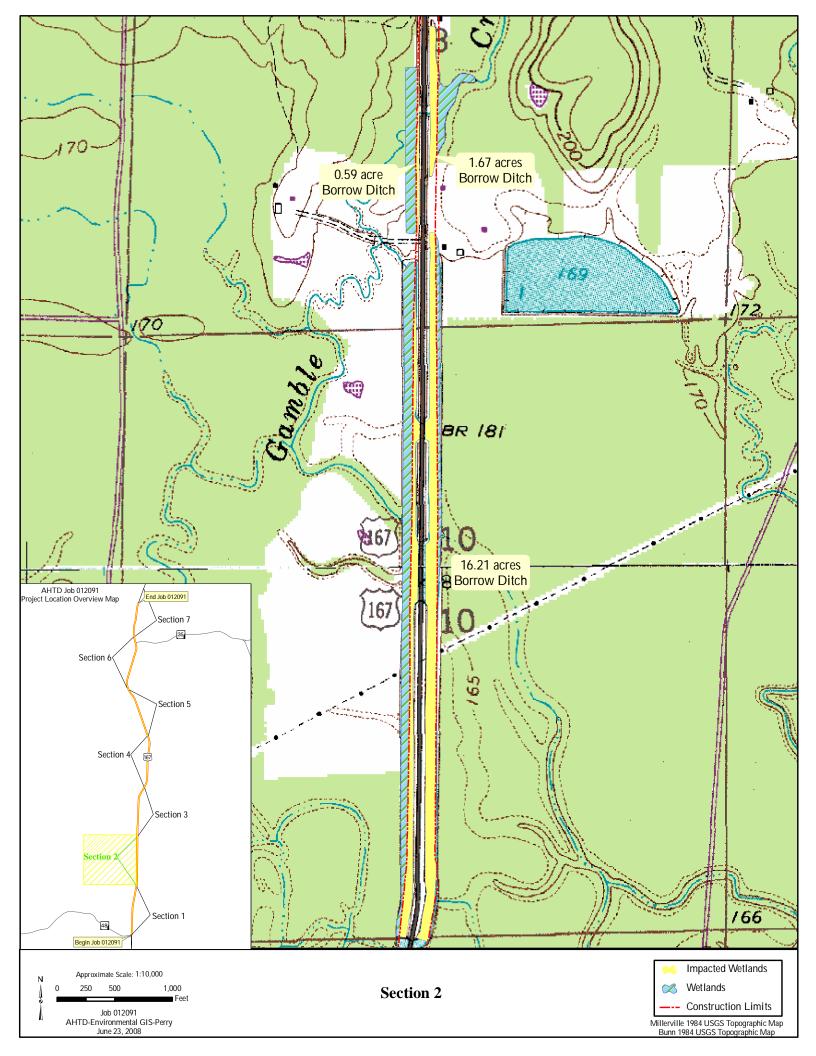
FACTORS	OPTIONS							
Lost Type	Туре 0.2	С		be B .0			Туре 3.0	
Priority Category	Tertia 0.5	ry	Seco 1	ndary .5	у		Prim 2.(•
Existing Condition	Very Impaire 0.1	d	Impaired 1.0		Slightly Impair 2.0	red	Fully	/ Functional 2.5
Duration	Seasonal 0.1	0 to 1 0.2	1 to 3 0.5		3 to 5 1.0	5	to 10 1.5	Over 10 2.0
Dominant Impact	Shade 0.2	Clear 1.0	Dredge 1.5		Drain 2.0		pound 2.5	Fill 3.0
Cumulative Impact			0.	05 x	$\sum A_i$			

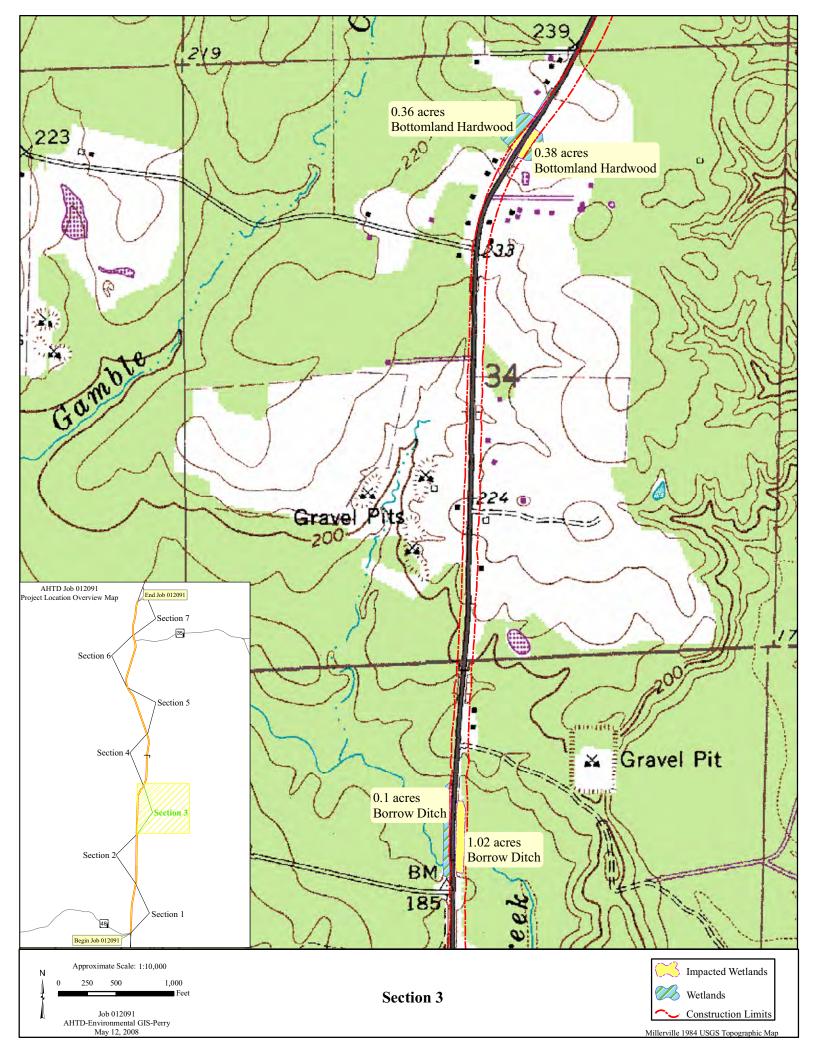
REQUIRED MITIGATION CREDITS WORKSHEET

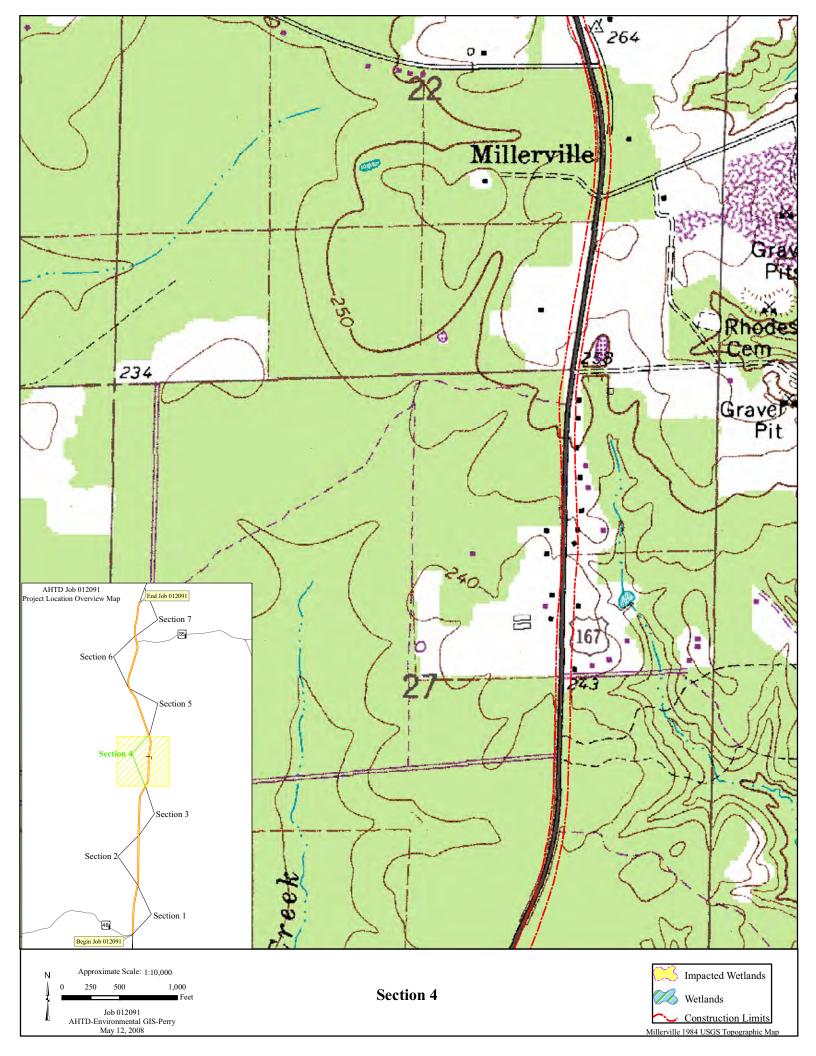
Factor	Area 1	Area 2	Area 3
	Vegetated	Bottomland	Herbaceous
	Borrow Ditch	Hardwoods	Wetland
Lost Type	Туре С	Туре А	Туре С
	0.2	3.0	0.2
Priority	Tertiary	Tertiary	Tertiary
Category	0.5	0.5	0.5
Existing	Impaired	Slightly Impaired	Impaired
Condition	1.0	2.0	1.0
Duration	Over 10	Over 10	Over 10
	2.0	2.0	2.0
Dominant	Fill	Fill	Fill
Impact	3.0	3.0	3.0
Cumulative Impact	2.2	2.2	2.2
Sum of r Factors	$R_1 = 8.9$	R ₂ =12.7	R ₃ = 8.9
Impacted Area	$A_1 = 40$	A ₂ = 2	A ₃ =3
R x A=	356.0	25.4	26.7
	Tota	Required Credit	$x = \sum (R x AA) =$

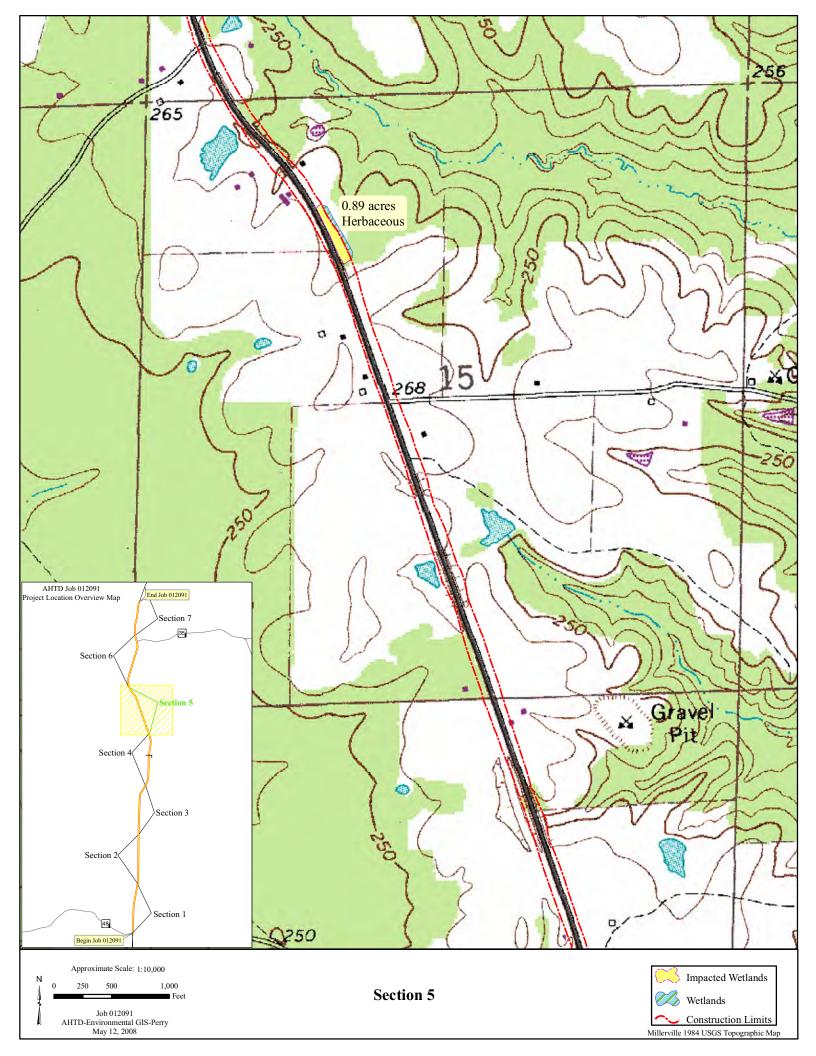
The average credits per acre in the Middle Ouachita River Mitigation Bank is 3.6. The equivalent acreage ratio (113.4 acres of mitigation/45 acres impacted) is 2.5:1.

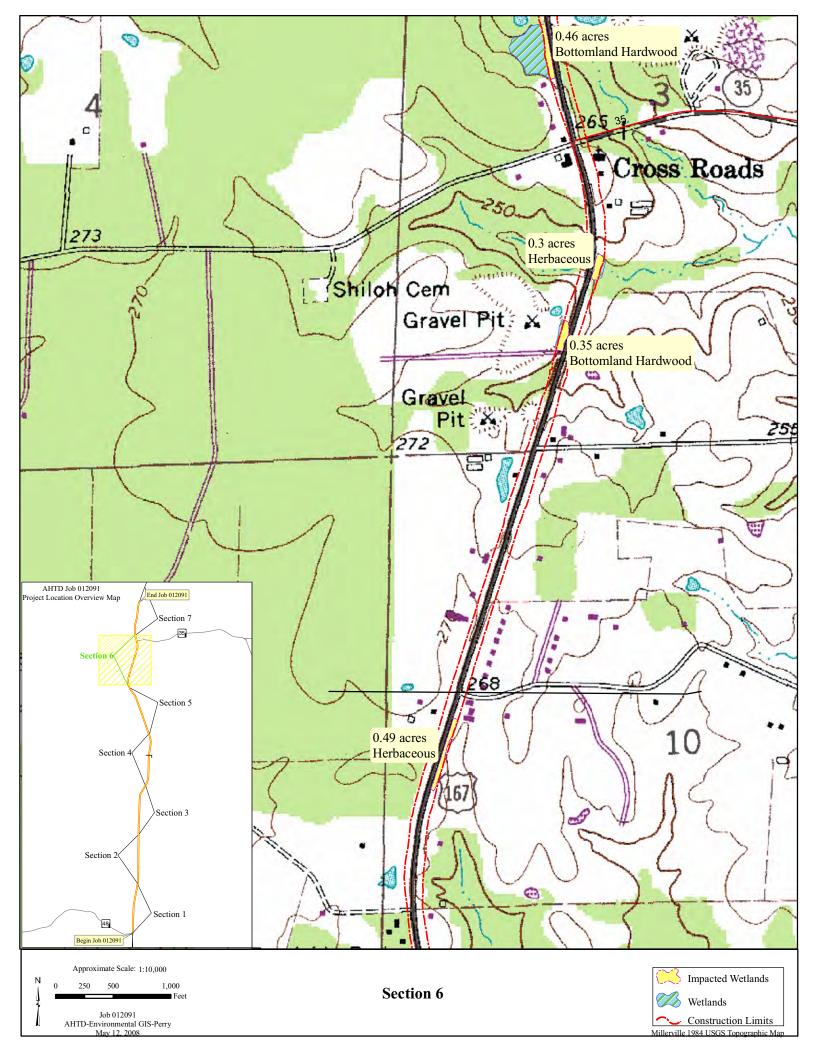


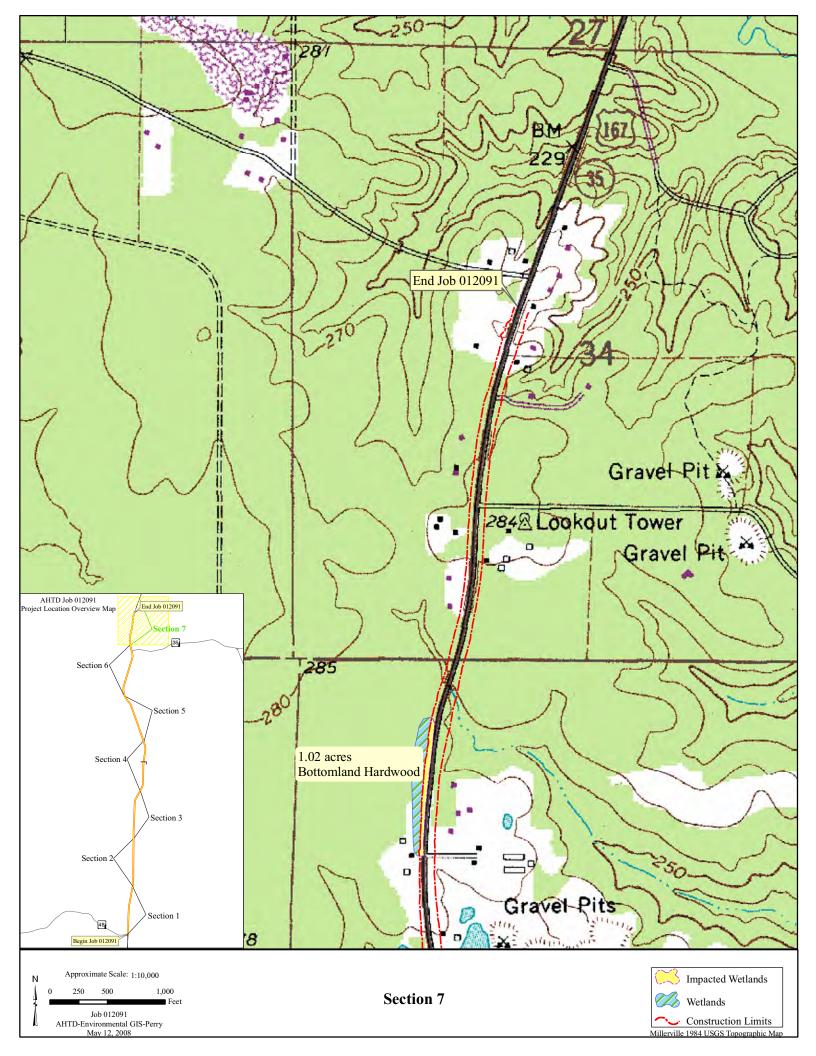












AHTD ENVIRONMENTAL	IMPACTS	ASSESSMENT	FORM
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	None	Minor	Significant	Comments
Environmental Impacts Air Quality	V			
Construction Impacts		10		
Cultural Resources	-			
Economic	-			
Endangered Species	مسسل			
Energy Resources	-			
Environmental Justice	~			
Fish and Wildlife	-	-		
Floodplains		/		Bridges w. 11 be longer
Forest Service Property	1	-		and a not the second
Hazardous Materials/Landfills	-			
Land Use Impacts	5			
Migratory Birds		-		S.P. Required
Navigation/Coast Guard	~			
Noise Levels		/		40 receptors alon ALL
Prime Farmland		-		HO receptors Nep Alabo Sche Bridge currently under
Protected Streams	~	-		Sche Anite culledly inter
Public Recreation Lands	1			Send Grige Carry Size
Public Water Supply/WHPA	1			
Relocatees		r		1 residental onumer 1 Busines
Section 4(f)/6(f)	~	-		11.20
Social	1			
Underground Storage Tanks		~		5 potental locations
Visual Impacts	~			
Stream Relocation	1			
Water Quality		10		
Wetlands		-		35 cores miligher mille Que
Wildlife Refuges	/	• • • · · · · ·		

Date Submitted: April 30, 2008 Date Revised:

ROADWAY DESIGN REQUEST

Job Number 020424 FAP Number	ber	County Grant
Job Name SALINE RIVER-NO.		
Design Engineer Martin Cruce E		
Brief Project Description: Roadway	/ Improve	ement-Widen Lanes and Shoulders
A. Existing Conditions:		
I. Roadway Width:		English: 24' - 36'
2. Shoulder Width:		English: 8'
Number of Lanes and Width:	Metric:	English 2 @ 12'
Existing Right-of-Way:	Metric:	English 130'
B. Proposed Conditions:		
1. Roadway Width:	Metric:	English 59°
2. Shoulder Width:		English:
8'		
3. Number of Lanes and Width:	Metric:	English: 4 (@, 12' and 1 (@, 11'
4. Average Right-of-Way:		English: Varies 140'-260"
C. Construction Information:		
If detour: Where:		Length: English
D. Design Data:		
2009 ADT: 4700 202	ADT.	6200 Trucks 24%
2009 AD1. 4700 202	y ADT.	0200 Hucks 24%
Design Speed: km/h 60	m.p.h.	
	-	
E. Approximate total length of proj-	ect:	kilometer(s)4.9 mile(s)
F. Justification for proposed improv	ionocato	Increase Consulty
r. Justification for proposed improv	CHICHTS!	Increase Capacity
G. Total Relocatees: 0 Res	sidences:	0 Businesses: 0
H. Have you coordinated with any o	of the fol	lowing: (Provide name and date)
State Agency:		
Federal Agency:		

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Date Submitted: April 30, 2008 Date Revised:

ROADWAY DESIGN REQUEST

Job Number 020425 FAP Numb		
Job Name NO.MILLERVILLE-S		
Design Engineer Martin Cruce E		
Brief Project Description: Roadway	Improven	nent-Widen Lanes and Shoulders
A. Existing Conditions:		
1. Roadway Width:		English: 24' - 36'
2. Shoulder Width:	Metric:	English: 8"
Number of Lanes and Width:		English 2@12'
Existing Right-of-Way:	Metric:	English 130'
B. Proposed Conditions:		
1. Roadway Width:	Metric:	English 59"
2. Shoulder Width:		English:
8'		
3. Number of Lanes and Width:	Metric:	English: 4 @ 12' and 1 @ 11'
4. Average Right-of-Way:		English: Varies 160'-210'
C. Construction Information:		
If detour: Where:		Length: English
D. Design Data:		
2009 ADT: 6500 202	9 ADT:	8500 Trucks 21%
Design Speed: km/h 60	ns n h	
Design Speed: Min/ii 00	ш.р.ш.	
E. Approximate total length of proj-	ect;	kilometer(s) 4.1 mile(s)
F. Justification for proposed improv	ements: Ir	crease Capacity
G. Total Relocatees: 2? Re	csidences:	1 Businesses: 1?
H. Have you coordinated with any o	of the follo	wing: (Provide name and date)
Federal Agency:		

Date Submitted to Bridge Division: _____ Date Returned to Env. Div. 6 30 08

Decia	ame: Saline River - No. Millerville (S) n Engineer: Bryan Freeling Environmental Staff:	RECEIVED
Desig	n Engineer. Dryan ricenny	AHTD
A. D	escription of Existing Bridge(s):	JUL - 1 2008
	Bridge Number: 1350 over Gamble Slough	
2.	Location: Rte. 167 Section: 10 Log Mile: 0.55	ENVIRONMENTAL
3.	Length: 481.00 ft ; Br. Rdwy. Width: 28.00 ft; Deck Width (Out to Out):	31.500 fidivision
4.	Type Construction: RCDG spans supported by concrete pile bents	
	Deficiencies: Too Narrow	
6.	HBRRP Eligibility: Qualif. Code <u>NQ</u> ; Suff. Rating <u>62.1</u>	
B. Pr	roposed Improvements:	
	Length: 542.13 ft ; Br. Rdwy. Width: 75.00 ft; Deck Width (Out to Out): 7	8.170 ft
	Travel Lanes: No. 4; Width 12 ft	and the loss of th
	Shoulder Width: Left: 8.00 ft ; Right: 8.00 ft	
4.	Sidewalks? no ; Location: ; Width:;	ft
C. C	onstruction Information:	
	Location in relation to existing bridge: Approx. 24' East of Existing C.L.	
	Superstructure Type: Cont. Prestressed Concrete Girder	
	Span Lengths: 3 Units @ 180' (60'-60'-60')	
	Substructure Type: Concrete Pile Bent	
	Ordinary High Water Elevation:	
	Number bents inside Ordinary High Water (OHW) Contours:	
7.	Concrete Volume below OHW: yd3; Volume bent excavation:	vd3: Is backfill reg'd?
8	Is Channel Excavation Required? _; Surface Area: ft2; Volume:	vd3
	Is Fill below OHW req'd? _; Surface Area:ft2; Volume:y	
	Is Riprap required?; Volume:yd3	
D. W	ork Road Information:	
	Is Work Road(s) required? TBD ; Location:ft; Top Width:	ft
	Is fill below OHW req'd?; Surface Area: ft2; Volume:	
	Are Pipes required to meet Backwater Criteria? _: Waterway opening	
E De	tour Information:	
	Is a detour bridge required? No	
	Location in relation to existing Bridge.	
	Length:ft; Br. Rdwy.Width:ft; Deck Elevation:	
4.	Volume of Fill below OHW:yd3; Surface Area:ft2	

Has Bridge Div. coordinated with any outside agencies?

Agency	Person Contacted	Date

Grant

Date Submitted to Bridge Division: _____ Date Returned to Env. Div. 6 30 08 BRIDGE INFORMATION-PRELIMINARY

Job Number: 020424 FAP Number: 9990 County: Grant Job Name: Saline River - No. Millerville (S)	AHTD
Design Engineer: Bryan Freeling Environmental Staff:	JUL - 1 2008
 A. Description of Existing Bridge(s): 1. Bridge Number: <u>1351</u> over <u>Gamble Slough Relief</u> 2. Location: Rte. <u>167</u> Section: <u>10</u> Log Mile: <u>0.81</u> 3. Length: <u>151.00</u> ft; Br. Rdwy. Width: <u>28.00</u> ft; Deck Width (Out to Out): 4. Type Construction: <u>RCDG spans supported by concrete pile bents</u> 5. Deficiencies: <u>Too Narrow</u> 6. HBRRP Eligibility: Qualif. Code <u>NQ</u>; Suff. Rating <u>62.1</u> 	ENVIRONMENTAL DIVISION
 B. Proposed Improvements: 1. Length: <u>180.13</u> ft ; Br. Rdwy. Width: <u>75.00</u> ft; Deck Width (Out to Out): <u>7</u> 2. Travel Lanes: No. <u>4</u>; Width <u>12</u> ft 3. Shoulder Width: Left: <u>8.00</u> ft ; Right: <u>8.00</u> ft 4. Sidewalks? <u>no</u>; Location:; Width:; Width:], Width:	
 C. Construction Information: Location in relation to existing bridge: <u>Approx. 24' East of Existing C.L.</u> Superstructure Type: <u>Cont. Prestressed Concrete Girder</u> Span Lengths: <u>1 Units @ 180' (60'-60'-60')</u> Substructure Type: <u>Concrete Pile Bent</u> Ordinary High Water Elevation:	yd3
 D. Work Road Information: 1. Is Work Road(s) required? <u>TBD</u>; Location: <u>ft</u>; Top Width: 2. Is fill below OHW req'd? <u>;</u> Surface Area: <u>ft</u>; Volume: <u>;</u> 3. Are Pipes required to meet Backwater Criteria? <u>;</u> Waterway opening 	_yd3
 E. Detour Information: 1. Is a detour bridge required? <u>No</u> 2. Location in relation to existing Bridge	

- 4. Volume of Fill below OHW: _____yd3; Surface Area: _____fi2
- F. Coordination with Outside Agencies (e.g., FHWA, City, County, C of E, USCG) Has Bridge Div. coordinated with any outside agencies? _____

Person Contacted	Date
	Person Contacted

Date Submitted to Bridge Division: _____ Date Returned to Env. Div. 63008 BRIDGE INFORMATION-PRELIMINARY

Job Number: 020424 FAP Number: 9990 Job Name: Saline River - No. Millerville (S)	O County: Grant	RECEIVED
Design Engineer: Bryan Freeling En	vironmental Staff:	
A DE LA ADIA DIA AN		JUL - 1 2008
A. Description of Existing Bridge(s):		ENVIRONMENTAL
 Bridge Number: <u>1352</u> over <u>Gamble Creek</u> Location: Rte. <u>167</u> Section: <u>10</u> 		DIVISION
 Length: <u>91.00</u> ft ; Br. Rdwy. Width: <u>28.0</u> 		and the second sec
 Length: <u>21.00</u> ft, br. Rdwy. width: <u>28.0</u> Type Construction: RCDG spans support 		<u>.500</u> It
5. Deficiencies: Too Narrow	ed by concrete phe bents	
6. HBRRP Eligibility: Qualif. Code <u>NQ</u>	; Suff. Rating 70.1	
B. Proposed Improvements:		
1. Length: 111.00 ft ; Br. Rdwy. Width: 75.0	00 ft; Deck Width (Out to Out): 78	.170 ft
2. Travel Lanes: No. 4; Width 12 ft		
3. Shoulder Width: Left: 8.00 ft ; Right: 8.00	<u>0</u> ft	
4. Sidewalks? no ; Location:	; Width:	_ft
C. Construction Information:		
1. Location in relation to existing bridge: Ap	prox. 24' East of Existing C.L.	
Superstructure Type: Integral W -Beam U	nit	
 Span Lengths: <u>1 Unit @ 110' (35'-40'-35'</u>) 		
 Substructure Type: <u>Concrete Pile B</u> 	ent	
Ordinary High Water Elevation:		
Number bents inside Ordinary High Water		
Concrete Volume below OHW: yd3	; Volume bent excavation: y	/d3; Is backfill req'd? _
 Is Channel Excavation Required? _; Surf 		
9. Is Fill below OHW req'd? _; Surface A		3
 Is Riprap required?; Volume: 	yd3	
D. Work Road Information:	and a contractor	
 Is Work Road(s) required? <u>TBD</u>; Loc 		
Is fill below OHW req'd?; Surface		
Are Pipes required to meet Backwater Cri	iteria?; Waterway opening:	ft2
E. Detour Information:		
 Is a detour bridge required? No 		
Location in relation to existing Bridge.		
3. Length:ft; Br. Rdwy.Width:		
 Volume of Fill below OHW: yd3; 	Surface Area: ft2	
F. Coordination with Outside Agencies (e.g., Fl Has Bridge Div. coordinated with any outside		3)
Agency	Person Contacted	Date

Grant

Date Submitted to Bridge Division: _____ Date Returned to Env. Div. 30 00 BRIDGE INFORMATION-PRELIMINARY Job Number: 020424 FAP Number: 9990 County: Grant Job Name: Saline River - No. Millerville (S) Environmental Staff: Design Engineer: Bryan Freeling A. Description of Existing Bridge(s): RECEIVED 1. Bridge Number: 1353 over Gamble Creek 2. Location: Rte. 167 Section: 10 Log Mile: 1.65 3. Length: 91.00 ft ; Br. Rdwy. Width: 28.00 ft; Deck Width (Out to Out): 31.500 ft - 1 2008 4. Type Construction: RCDG spans supported by concrete pile bents ENVIRONMENTAL 5. Deficiencies: Too Narrow DIVISION HBRRP Eligibility: Qualif. Code ____NQ ; Suff. Rating 58.9 B. Proposed Improvements: 1. Length: 111.00 ft ; Br. Rdwy. Width: 75.00 ft; Deck Width (Out to Out): 78.170 ft 2. Travel Lanes: No. 4; Width 12 ft 3. Shoulder Width: Left: 8.00 ft ; Right: 8.00 ft 4. Sidewalks? no ; Location: ; Width: ft C. Construction Information: 1. Location in relation to existing bridge: Approx. 24' East of Existing C.L. 2. Superstructure Type: Integral W -Beam Unit 3. Span Lengths: 1 Unit @ 110' (35'-40'-35') Substructure Type: Concrete Pile Bent 5. Ordinary High Water Elevation: Number bents inside Ordinary High Water (OHW) Contours: 7. Concrete Volume below OHW: _____yd3; Volume bent excavation: _____yd3; Is backfill req'd? __ 8. Is Channel Excavation Required? _; Surface Area: _____ft2; Volume: _____yd3 9. Is Fill below OHW req'd? __; Surface Area: ____ ft2; Volume: ____ yd3 10. Is Riprap required? ; Volume: yd3 D. Work Road Information: 1. Is Work Road(s) required? TBD ; Location: ft ; Top Width: ft Is fill below OHW req'd? _____; Surface Area: _____ ft2; Volume: _____ yd3 3. Are Pipes required to meet Backwater Criteria? ____; Waterway opening: ft2 E. Detour Information: 1. Is a detour bridge required? No 2. Location in relation to existing Bridge. ft : Deck Elevation: Length: ft ; Br. Rdwy.Width: Volume of Fill below OHW: _____yd3; Surface Area: _____ft2 F. Coordination with Outside Agencies (e.g., FHWA, City, County, C of E, USCG) Has Bridge Div. coordinated with any outside agencies?

Person Contacted	Date
	Person Contacted

Grant

012041

Date Submitted to Bridge Division: _____ Date Returned to Env. Div. (2300) BRIDGE INFORMATION-PRELIMINARY

Desig	ame: Saline River - South (S) n Engineer: Bryan Freeling Environmental Staff:	RECEIVED
		JUL - 1 2008
1.	Bridge Number: 1354 over Saline River Relief	NADONILICATAL
2.	Location, Atc. 107 Dector, o ce 7	NVIRONMENTAL DIVISION
3.	Length: 199.00 ft ; Br. Rdwy. Width: 28.00 ft; Deck Width (Out to Out): 31.500 ft	t
	Type Construction: RCDG spans supported by concrete pile bents	
	Deficiencies: Too Narrow	
6.	HBRRP Eligibility: Qualif. Code <u>NQ</u> ; Suff. Rating 60.1	
B. P	roposed Improvements:	
1.	Length: 242.13 ft ; Br. Rdwy. Width: 75.00 ft; Deck Width (Out to Out): 78.170 ft	
2.	Travel Lanes: No. 4; Width 12 ft	
3.	Shoulder Width: Left: 8.00 ft; Right: 8.00 ft	
4.	Sidewalks? no; Location:; Width:ft	
C. C	onstruction Information:	
	Location in relation to existing bridge: Not set at this time .	
	Superstructure Type: Cont. Prestressed Concrete Girder	
	Span Lengths: 1 Units @ 240' (60'-60'-60'-60')	
	Substructure Type: Concrete Pile Bent	
	Ordinary High Water Elevation:	
	Number bents inside Ordinary High Water (OHW) Contours:	
	Concrete Volume below OHW: yd3; Volume bent excavation: yd3; Is	backfill reg ² d7
	Is Channel Excavation Required?; Surface Area:f2; Volume: yd3	
	Is Fill below OHW req'd? _; Surface Area: ft2; Volume: yd3	
10.	Is Riprap required?; Volume:yd3	
D. W	ork Road Information:	
	Is Work Road(s) required?TBD _; Location:ft; Top Width:ft	
	Is fill below OHW req'd?; Surface Area:ft2; Volume:yd3	
		ft2
5. De	etour Information:	
	Is a detour bridge required? No	
1.	Location in relation to existing Bridge.	
2.	Length: ft : Br. Rdwy, Width: ft : Deck Elevation:	
2.	Length: ft ; Br. Rdwy.Width: ft ; Deck Elevation: Volume of Fill below OHW: yd3; Surface Area: ft2	
2. 3. 4.		

Agency	Person Contacted	Date

Date Submitted to Bridge Division: _____ Date Returned to Env. Div. 6 30 02 BRIDGE INFORMATION-PRELIMINARY

101114	ame: Saline River - South (S)	RECEIVED
Desig	ame: Saline River - South (S) n Engineer: Bryan Freeling Environmental Staff:	AHTD
	escription of Existing Bridge(s):	JUL - 1 2008
	Bridge Number: 1355 over Saline River Relief	
-		ENVIRONMENTA
า.	Location: Rte. <u>167</u> Section: <u>8 & 9</u> Log Mile: <u>3.18</u> Length: <u>265.00</u> ft ; Br. Rdwy. Width: <u>28.00</u> ft; Deck Width (Out to Out): <u>3</u> Type Construction: RCDG spans supported by conserve pile bents	1 500 A
 	Type Construction: RCDG spans supported by concrete pile bents	1
	Deficiencies: Too Narrow	
	HBRRP Eligibility: Qualif. Code <u>NQ</u> ; Suff. Rating <u>60.1</u>	
.	Inside Sufficiently, dearer, concerning to the second second	
	oposed Improvements:	
	Length: 302.17 ft ; Br. Rdwy. Width: 75.00 ft; Deck Width (Out to Out): 71	<u>8.170 ft</u>
2.	Travel Lanes: No. 4; Width 12 ft	
3.	Shoulder Width: Left: 8.00 ft; Right: 8.00 ft	
4.	Sidewalks? no ; Location: ; Width:	ft
	onstruction Information:	
	Location in relation to existing bridge: Not set at this time.	
	Superstructure Type: Cont. Prestressed Concrete Girder	
3.	Span Lengths: 1 Units @ 300' (60'-60'-60'-60'-60')	
	Substructure Type: Concrete Pile Bent	
	Ordinary High Water Elevation:	
	Number bents inside Ordinary High Water (OHW) Contours:	
	Concrete Volume below OHW: yd3; Volume bent excavation: ?	
	Is Channel Excavation Required?; Surface Area:ft2; Volume:	
	Is Fill below OHW req'd? _; Surface Area:ft2; Volume:yd	3
10.	Is Riprap required?; Volume:yd3	
D. We	ork Road Information:	
	Is Work Road(s) required? TBD ; Location:ft ; Top Width:	ft
	Is fill below OHW req'd?; Surface Area:fl2; Volume:	
3.	Are Pipes required to meet Backwater Criteria?; Waterway opening:	ft2
	tour Information:	
	Is a detour bridge required? No	
2.	Location in relation to existing Bridge.	
2	Length:ft; Br. Rdwy.Width:ft; Deck Elevation:	
2.	Volume of Fill below OHW:yd3; Surface Area:f2	

Has Bridge Div. coordinated with any outside agencies? _____

P	erson Contacted	Date

Date Submitted to Bridge Division: _____ Date Returned to Env. Div. 4 30/08 BRIDGE INFORMATION-PRELIMINARY

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Desi	gn Engineer: Bryan Freeling	Environmental Staff:	
A 1	Description of Existing Bridge(s):		AHTD
	. Bridge Number: 1356 over Saline Riv	ver Relief	JUL - 1 2008
	Location: Rte. 167 Section: 1		
3	Length: 166.17 ft ; Br. Rdwy. Width	28 00 ft. Deck Width (Out to Ou	T) 31 STENATRONMENTA
4	. Type Construction: RCDG spans sup	norted by concrete pile bents	DIVISION
	. Deficiencies: Too Narrow	ported by concrete pric beins	
	. HBRRP Eligibility: Qualif. Code	NO - Suff Rating 60 1	
	. mored Englorinty: Quant. code	110, 5un. Raing 00.1	
B. P	roposed Improvements:		
1	. Length: 182.13 ft ; Br. Rdwy. Width:	75.00 ft; Deck Width (Out to Ou	t): 78.170 ft
2	. Travel Lanes: No. 4; Width 12 ft	Contraction of the second s	C. Constant of
3	. Shoulder Width: Left: 8.00 ft ; Right:	8.00 ft	
4	. Sidewalks? no ; Location:	; Width:	ft
	Construction Information:		
	a standard and an and a second standard and second standard and second standard standards and standard standard	Not not at this time	
	. Location in relation to existing bridge		
	Superstructure Type: Cont. Pre		
	. Span Lengths: 1 Units @ 180' (60'-6		
4	. Substructure Type: Concrete Pi	le Bent	
	O 11 TTI 1 111 . TTI		
	. Ordinary High Water Elevation:		
6	Number bents inside Ordinary High W		
6	Number bents inside Ordinary High W Concrete Volume below OHW:	yd3; Volume bent excavation:	yd3; Is backfill req'd?
6 7 8	Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation: Surface Area: ft2; Volume:	yd3
6 7 8 9	 Number bents inside Ordinary High W Concrete Volume below OHW:	yd3; Volume bent excavation: Surface Area:ft2; Volume: e Area:ft2; Volume:	yd3
6 7 8 9	Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation: Surface Area:ft2; Volume: e Area:ft2; Volume:	yd3
6 7 8 9 10	 Number bents inside Ordinary High W Concrete Volume below OHW:	yd3; Volume bent excavation: Surface Area:ft2; Volume: e Area:ft2; Volume:	yd3
6 7 8 9 10	 Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation: Surface Area:ft2; Volume: ee Area:ft2; Volume: me: yd3	yd3 yd3
6 7 8 9 10 D. W	 Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation:	yd3 yd3 ith:ft
6 7 8 9 10 D. W 1 2	 Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3
6 7 8 9 10 D. W 1 2 3	 Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3
6 7 8 9 10 D. W 1 2 3 E. D	 Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3
6 7 8 9 10 D. W 1 2 3 E. D	 Number bents inside Ordinary High W. Concrete Volume below OHW: Is Channel Excavation Required?; Is Fill below OHW req'd?; Surface Is Riprap required?; Volu ork Road Information: Is Work Road(s) required? <u>TBD</u>; Is fill below OHW req'd?; Surface Is fill below OHW req'd?; Surface Are Pipes required to meet Backwates etour Information: Is a detour bridge required? No 	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3
6 7 8 9 10 D. W 1 2 3 E. D 1 2	 Number bents inside Ordinary High W. Concrete Volume below OHW: Is Channel Excavation Required?; Is Fill below OHW req'd?; Surface Is Riprap required?; Volu ork Road Information: Is Work Road(s) required? <u>TBD</u>; Is fill below OHW req'd?; Surface Is fill below OHW req'd?; Surface Are Pipes required to meet Backwates etour Information: Is a detour bridge required? No Location in relation to existing Bridge 	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3
6 7 8 9 10 D. W 1 2 3 E. D 1 2 3	 Number bents inside Ordinary High W. Concrete Volume below OHW: Is Channel Excavation Required?; Is Fill below OHW req'd?; Surface Is Riprap required?; Volu ork Road Information: Is Work Road(s) required? <u>TBD</u>; Is fill below OHW req'd?; Surface Is fill below OHW req'd?; Surface Are Pipes required to meet Backwates etour Information: Is a detour bridge required? No 	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3
6 7 8 9 10 D. W 1 2 3 E. D 1 2 3 4	 Number bents inside Ordinary High W. Concrete Volume below OHW: Is Channel Excavation Required?; Is Channel Excavation Required?; Surface Is Fill below OHW req'd?; Surface Is Riprap required?; Volution ork Road Information: Is Work Road(s) required? <u>TBD</u>; Is fill below OHW req'd?; Surface Is a detour bridge required? No Location in relation to existing Bridge Length:ft; Br. Rdwy.Width:y Volume of Fill below OHW:y 	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3 ning:ft2
6 7 8 9 10 D. W 1 2 3 E. D 1 2 3 4 F. C	 Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3 ning:ft2
6 7 8 9 10 D. W 1 2 3 E. D 1 2 3 4 F. C	 Number bents inside Ordinary High W. Concrete Volume below OHW: Is Channel Excavation Required?; Is Channel Excavation Required?; Surface Is Fill below OHW req'd?; Surface Is Riprap required?; Volution ork Road Information: Is Work Road(s) required? <u>TBD</u>; Is fill below OHW req'd?; Surface Is a detour bridge required? No Location in relation to existing Bridge Length:ft; Br. Rdwy.Width:y Volume of Fill below OHW:y 	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3 ning:ft2
6 7 8 9 10 D. W 1 2 3 E. D 1 2 3 4 F. C	 Number bents inside Ordinary High W. Concrete Volume below OHW:	yd3; Volume bent excavation:	yd3 yd3 hth:ft yd3 ning:ft2