

ADMINISTRATIVE ACTION  
FINDING OF NO SIGNIFICANT IMPACT

PROJECT APD-355(4)

RELOCATION OF STATE ROUTE 24 THROUGH RED BAY  
FROM MISSISSIPPI STATE LINE TO BEAR CREEK  
FRANKLIN COUNTY

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

U.S. DEPARTMENT OF TRANSPORTATION

Submitted pursuant to 42 U.S.C. 4321 et. seq.  
and 23 U.S.C., 128(a)

January 6, 1982  
Date

J. F. Caraway, Chief  
Design Bureau

By: Bill G. Carwile  
Bill G. Carwile, Coordinator  
Environmental Technical Section

March 11, 1982  
Date

Bill G. Carwile  
Federal Highway Administration

For L. ... Division Administrator  
Federal Highway Administration

C O N T E N T S

<u>TITLE</u>	<u>PAGE</u>
SUMMARY	1-4
1. Individuals Who Can Be Contacted for Additional Information Concerning the Proposal and Statement..	1
2. Description of the Proposed Action.....	1
3. Actions Required by Other Federal Agencies.....	2
4. Summary of Environmental Impacts.....	2
5. Alternatives.....	2
6. Agencies From Which Comments Were Requested.....	3
ENVIRONMENTAL ASSESSMENT	5-36
I. Description of the Proposed Action and Alternatives Considered, and the Social, Economic and Environmental Context	5-10
A. Project Description.....	5
B. Need for the Project.....	6
C. Project History.....	7
D. Description of Surrounding Area.....	8
E. Geologic and Hydrologic Conditions.....	9
F. Section 4(f) Involvement.....	10
II. Land Use Planning	11-12
III. The Probable Impact of the Proposed Action on the Environment	13-29
A. Indirect Impacts.....	13
B. Direct Impacts.....	13

1. Natural, Ecological or Scenic Resources Impacts.....	13
2. Relocation of Individuals and Families Impacts.....	18
3. Social Impacts.....	22
4. Air Quality Impacts.....	23
5. Noise Impacts.....	23
6. Water Quality Impacts.....	24
7. Wetlands and Coastal Zone Impacts.....	26
8. Stream Modification or Impoundment Impacts.....	26
9. Flood Hazard Evaluation.....	27
10. Construction Impacts.....	27
11. Impact on Prime Farmland.....	29
 IV. Alternatives	 30-32
A. Alternate Locations.....	30
B. Alternate Design Features.....	30
C. Alternate Modes of Transportation.....	31
D. No Action Alternative.....	31
E. Postponing the Action.....	32
 V. Probable Adverse Environmental Effects Which Can- not Be Avoided	 32
 VI. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and En- hancement of Long-Term Productivity	 33
 VII. Irreversible and Irretrievable Commitments of Resources	 33
 VIII. The Impact on Properties of Historic and Cultural Significance	 33
 IX. Comments and Coordination	 34-38
MAPS	39-40
APPENDIX	A-1 - A-87

C O N T E N T S

TITLE	PAGE
EXHIBITS	
Exhibit A (A-95 Concurrence Letter).....	A-1
Exhibit B (Ecological Report).....	A-2 - A-25
Exhibit C (Air Analysis).....	A-26 - A-28
Exhibit D (Noise Analysis).....	A-29 - A-37
Exhibit E (Water Quality Report).....	A-38 - A-48
Exhibit F (Archaeological and Historical Survey Report).....	A-49 - A-73
COPIES OF COMMENTS RECEIVED FROM EARLY COORDINATION	
Mississippi Highway Department.....	A-74
U.S. Environmental Protection Agency....	A-75
U.S. Department of Interior, Fish & Wildlife Service.....	A-76
U.S. Department of Health, Education and Welfare.....	A-77
Tennessee Valley Authority.....	A-78
U.S. Army Corps of Engineers, Nashville.	A-79
Federal Aviation Administration.....	A-80
Alabama Department of Conservation and Natural Resources.....	A-81
Alabama Historical Commission.....	A-82
Alabama Office of Highway and Traffic Safety.....	A-83
State Superintendent of Education.....	A-84
Northwest Alabama Council of Local Governments.....	A-85
Franklin County Commission.....	A-86
Illinois Central Gulf Railroad.....	A-87

S U M M A R Y

FEDERAL HIGHWAY ADMINISTRATION

ADMINISTRATIVE ACTION

FINDING OF NO SIGNIFICANT IMPACT

1. INDIVIDUALS WHO CAN BE CONTACTED FOR ADDITIONAL INFORMATION CONCERNING THE PROPOSAL AND STATEMENT

Mr. Bobby J. Kemp, Director  
Alabama Highway Department  
11 South Union Street  
Montgomery, Alabama 36130  
Telephone: 832-5440

Mr. L. N. MacDonald, Division Administrator  
Federal Highway Administration  
441 High Street  
Montgomery, Alabama 36104  
Telephone: 832-7370

2. DESCRIPTION OF THE PROPOSED ACTION

Project APD-355(4) is the proposed relocation of Alabama 24 through Red Bay in Franklin County, as depicted on the map on page 40. This project is a portion of Corridor "V" of the Appalachian Development Highway System. Corridor "V" runs from I-55 near Batesville, Mississippi to I-24 at South Pittsburg, Tennessee.

The proposed project begins at the Alabama-Mississippi State Line south of present Alabama 24, runs northeasterly through the southern section of Red Bay and ends near the east corporate limits, where the project connects to a portion of the Appalachian Development Highway already under construction. The length of

the project is approximately 3.0 miles.

It is proposed to build a rural two lane roadway at this time and acquire enough right-of-way to provide for an ultimate four lane facility, with the additional two lanes to be constructed at a later time.

### 3. ACTIONS REQUIRED BY OTHER FEDERAL AGENCIES

The proposed project has been coordinated with the U.S. Corps of Engineers, and it was determined that no permits would be required from that agency. The project does not involve any streams under the jurisdiction of the U.S. Coast Guard, therefore, a Coast Guard permit will not be required for this proposal.

### 4. SUMMARY OF ENVIRONMENTAL IMPACTS

Negative: The negative effects include the conversion of over 100 acres to highway and right-of-way, and the relocation of several families and one business. During construction there will be some minor, temporary erosion and water pollution, plus some air and noise pollution. Some wildlife habitat will be destroyed and some timberland will be taken out of production.

Positive: The positive effects will be safer and more efficient transportation, potential economic growth, and an aesthetically oriented highway. Implementation of the project will also enhance national defense and fire protection.

### 5. ALTERNATIVES

There are three route locations under consideration, as

illustrated on the map on page 40 . Also, under consideration are a "postpone the action" alternative and a "no action" alternative.

6. AGENCIES FROM WHICH FHPM 7-7-5 COORDINATION COMMENTS WERE REQUESTED.

Federal:

- U.S. Forest Service
- \*U.S. Environmental Protection Agency
- Federal Water Pollution Control Administration
- \*U.S. Fish and Wildlife Service
- U.S. Department of Interior, Bureau of Outdoor Recreation
- U.S. Department of Agriculture, Soil Conservation Service
- \*Federal Aviation Administration
- U.S. Department of Agriculture, Environmental Quality Activities
- \*U.S. Department of HEW
- U.S. Department of HUD
- \*U.S. Corps of Engineers
- \*Tennessee Valley Authority

State:

- Alabama Development Office (State Clearinghouse)
- \*Alabama Historical Commission
- Alabama Bureau of Sanitation
- Alabama Economic Development Spec.
- Geological Survey of Alabama
- Department of Agriculture and Industries
- Bureau of Publicity and Information
- Soil and Water Conservation Committee
- \*State Superintendent of Education
- Alabama Air Pollution Control Commission
- Alabama Forestry Commission
- \*Alabama Department of Conservation and Natural Resources
- \*Highway and Traffic Safety Coordinator
- Civil Defense Director
- Alabama Department of Industrial Relations
- Alabama Cattlemans Association
- Alabama Environmental Quality Association
- Attorney General's Office

Others:

- \*Mississippi Highway Department
- The Alabama Conservancy
- Cahaba Group, Sierra Club
- Mayor, City of Red Bay
- Red Bay T.V. Cable

League of Women Voters  
Franklin Electric Cooperative  
South Central Bell  
\*Franklin County Commission  
Franklin County Board of Education  
\*Northeast Alabama Council of Local Governments (Regional  
Clearinghouse)  
\*Illinois Central Gulf Railroad

---

\*Agencies which responded

FINDING OF NO SIGNIFICANT IMPACT

PROJECT APD-355(4)  
RELOCATION OF ALABAMA 24 THROUGH RED BAY  
FROM MISSISSIPPI STATE LINE TO BEAR CREEK  
FRANKLIN COUNTY

Pursuant to 42 U.S.C. (2) (c)  
and 23 U.S.C. 128 (a)

I. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES CONSIDERED,  
AND THE SOCIAL, ECONOMIC AND ENVIRONMENTAL CONTEXT

A. Project Description

Project APD-355(4), Franklin County, is the proposed relocation of Alabama State Route 24 through Red Bay. The routes under consideration are illustrated on the map on page 40.

This project represents a segment of Corridor "V" of the proposed Appalachian Development Highway System, which was designated by the Appalachian Regional Commission on March 27, 1973. Corridor "V" runs from I-55 near Batesville, Mississippi to I-24 at South Pittsburg, Tennessee. The proposed route of Corridor "V" across northern Alabama is shown on the map on page 39.

The project begins at the Alabama-Mississippi State Line south of present Alabama 24, and runs northeasterly through the southern section of Red Bay. The eastern terminus of the project is just west of Bear Creek, where the route ties into

a portion of the Appalachian Development Highway previously under construction.

The State line crossing has been coordinated with the Mississippi Highway Department. They are currently preparing an Environmental Assessment for their project connecting to this one at the state line. Their letter dated February 8, 1977, (attached in the Appendix, page A-74) gives tentative approval of the general state line crossing point and states that they can satisfactorily connect to either of our alternate alignments.

It is proposed to build a rural two lane roadway at this time and acquire enough right-of-way (300' minimum) for an ultimate four lane facility, with the additional two lanes to be constructed at a later time. The typical section being considered for the initial two lane construction is 24 feet of pavement with 10 feet shoulders. Preliminary plans for the project show a maximum grade of approximately 5.8 percent and a maximum horizontal curve of two degrees. All design features will be in accordance with the American Association of State Highway and Transportation Officials (AASHTO) standards and specifications (60 mph design speed).

Interchanges are being considered with State Route 19 and present State Route 24, and grade separations are under consideration at the Illinois Central Railroad and County Roads 11 and 35. At grade intersections are proposed at County Roads 1, 9, 25 and one unnumbered county road. The interchanges and grade separations will be built only if determined to be warranted by traffic volumes, safety, etc. Alternate 1 is approximately 3.2 miles in length with a total estimated cost of about \$10,454,000 for ultimate four lane construction. Alternate 2 is about 2.9 miles long and ultimate four lane construction would cost approximately \$13,173,000 if

the pond on Clear Branch is bridged, and approximately \$10,984,000 if the pond is filled in. Alternate 3 is approximately 3.6 miles in length and estimated cost if \$15,935,000. All of these estimates include the two interchanges and three grade separations which are being considered.

#### B. Need For The Project

Present Alabama 24 is inadequate in geometrics and capacity to handle present and future traffic volumes. The 1978 average daily traffic (ADT) along the existing road ranges from 1560 to 6620, and the 1998 ADT is predicted to range from 2500 to 10,590 vehicles per day. Through traffic along Alabama 24 is presently routed through downtown Red Bay causing inconvenience to through travelers and congestion in the downtown area. Construction of this project would route the through traffic around the downtown district. Traffic estimates indicate that 1410 to 2210 vehicles per day would be utilizing the proposed bypass by 1998.

A total of 14 accidents occurred along this segment of the present road during the two year period from January 1, 1976 through December 31, 1977. This accident rate is slightly higher than comparable lengths of similar highways and would likely be reduced by implementation of this project.

Construction of the proposed project will provide safer and more efficient transportation for this region. In addition to serving the local area, the project will enhance interstate travel as it is a vital link in Corridor "V" of the Appalachian Development Highway System.

#### C. Project History

The Appalachian Development Highway System was born in March of 1965, when Congress included the program as part of the Appalachian Regional Development Act. The program has two primary ob-

jectives: to more equitably involve Appalachia in the economic and social life of the nation, and to help the towns of the region do a better job of serving the surrounding rural areas.

An A-95 review of the proposed project conducted in July of 1976 by the state and regional clearinghouse determined that the project is consistent with current State plans, programs and objectives. Also, in July of 1976, appropriate federal, state, and local agencies, officials and individuals were contacted requesting their views and comments concerning the environmental aspects of the project. A ground survey of the alternate routes was completed in March of 1977. A public involvement meeting was held in Red Bay on July 7, 1977, to inform the public of the proposed project and to solicit views and comments from the local populace. From the results of early coordination and environmental studies, it was determined that the project would constitute a major action as defined by FHPM 7-7-2. The Federal Highway Administration concurred with the major action determination on November 3, 1977. FHWA also concurred on December 19, 1977, with our determination that the project would not have a significant impact on the environment and, therefore, that a negative declaration would be prepared for the project.

#### D. Description of the Surrounding Area

The proposed project lies in the east Gulf Coastal Plain near the Cumberland Plateau in northwest Alabama. The project lies almost entirely within the city limits of Red Bay; however, the corridor is basically rural with scattered residential development. The terrain is rolling to hilly with the landscape dominated by an oak-hickory forest.

Franklin County is primarily rural, with densely forested hills being the predominant terrain feature. Agricultural use is generally limited to the relatively flat valley areas which follow existing and former stream flood plains. Residential and commercial development is concentrated in the small towns of Red Bay and Russellville, with small rural communities scattered throughout the area.

#### E. Geologic and Hydrologic Conditions

The corridor is underlain by the Bangor Limestone of Mississippian Age and the Tuscaloosa Group of Cretaceous Age. The regional dip of the Tuscaloosa Group is westward, but the irregular surface of the Bangor, upon which the Tuscaloosa was deposited, results in sporadic thickening and thinning of the Tuscaloosa along the corridor.

The Bangor Limestone consists of dense gray limestone that is sporadically sandy, silty and cherty. A mantle of residual clay and boulders derived from the Bangor overlies bedrock along most of the corridor.

The Tuscaloosa Group consists of gravel, sand and varicolored sandy clay. The gravel consists mainly of chert, but contains some limestone, quartz and sandstone. Limonitic iron ore occurs sporadically at or near the base of the Tuscaloosa Group in the area.

Residual clay derived from the Bangor Limestone is susceptible to slumping and sliding on cuts, particularly where the clay is overlain by partially-saturated Tuscaloosa sediments. Benching and fluming may be necessary if 10 feet or more residual clay occurs in deep cuts. Cuts in the Tuscaloosa Group are generally stable except where residual clay of the Bangor underlies the Tuscaloosa.

Available data indicate that the Bangor Limestone is not very cavernous in the area. No significant sinkholes or subsided areas are shown along the corridor on topographic maps. Records of wells in the area indicate that the Bangor generally does not yield sufficient quantities of water to precipitate any appreciable land subsidence.

#### F. Section 4(f) Involvement

There are no known parks, recreational areas, wildlife or waterfowl refuges, or significant historical sites involved with this project. Therefore, there is no Section 4(f) involvement.

An intensive archaeological and historical survey was conducted in October of 1976 for the proposed APD corridor from the Mississippi State Line to west of Russellville. This survey was performed by a consultant of the Alabama Historical Commission as provided for in a contractual agreement between Alabama Highway Department and the Alabama Historical Commission. A report of the survey is attached in the Appendix, Exhibit F. This survey revealed no significant archaeological sites and no historical sites on or eligible for inclusion on the National Register to be presented in this portion of the corridor surveyed. One house listed on the Alabama Inventory, the Dempsey Home in Red Bay, is located approximately 1000 feet from the proposed right-of-way limits. Construction of the project will not cause damage to the house.

## II. LAND USE PLANNING

The proposed project is within the city limits of Red Bay; however, the area traversed by the project is basically rural. Land use is somewhat limited by the moderately rolling terrain. Most of the area is forest and pasture land, with some scattered residential development. This project should not alter present land uses with the exception of some strip development that usually accompanies bypass construction around small rural towns.

The planning agency for this region is the Northwest Alabama Council of Local Governments. There are no local planning agencies in the town of Red Bay, and no relevant studies have been done on Red Bay or the immediate project area.

Red Bay is a small rural town of 2,461 (1970 census) located in Franklin County (population 23,933 - 1970 census) in northwest Alabama. A land use and population chart (Table I) is on the following page.

Industries in the Red Bay area include a lumber company, a mobile home manufacturing plant, an animal feed processing plant, a motor home factory, and two garment manufacturing plants.

Coordination with the areawide planning agencies (A-95 review) revealed that the proposed project presents no conflict or inconsistency with state, regional or local plans, programs and objectives.

FRANKLIN COUNTY  
NORTHWEST ALABAMA COUNCIL OF LOCAL GOVERNMENTS

TYPE USE	ACRES	PERCENT TOTAL COUNTY	LAND USE		STATE	
			REGION TYPE USE ACRES	PERCENT	TYPE USE ACRES	PERCENT
URBAN	2619	0.64	27552	9.51	500072	0.52
AGRICULTURE	114508	28.00	657670	17.41	8922439	1.28
FOREST	289286	70.74	1404991	20.59	22712263	1.27
WATER	0	0.0	57377	0.0	872814	0.0
BARREN	2545	0.62	7907	32.19	98117	2.59
WETLAND	0	0.0	0	0.0	85918	0.0
TOTAL	408958	100.00	2155497	18.97	33191623	1.23

POPULATION DATA

COUNTY            23933            0.06 PERSONS/ACRE            17.09 ACRES/PERSON

COUNTY HAS 13.14 PERCENT OF THE REGIONAL POPULATION OF 182118

COUNTY HAS 0.69 PERCENT OF THE STATE POPULATION OF 3444183

NOTE ABOVE DATA COMPILED FROM INFORMATION IN ALABAMA  
DEVELOPMENT OFFICE REPORT ON PLANNING CONSIDERATIONS -  
LAND USE, JUNE 1975

TABLE I

### III. THE PROBABLE IMPACT OF THE PROPOSED ACTION ON THE ENVIRONMENT

#### A. Indirect Impacts

Economic development in the area should be enhanced by construction of this project. The economy of Franklin County is centered around timber production, iron ore strip mining, and manufacturing. Products and supplies must be transported along highways to rail heads and plant sites. The immediate area around the proposed project is primarily undeveloped, and some strip development usually accompanies the construction of highways bypassing small rural towns.

The project will also provide improved access to industrial developments in neighboring towns. The median income for Franklin County in 1970 was \$6,049. The 1976 unemployment rate was 9.4%. The existing unemployment rate should be reduced somewhat during construction of the project, since highway contractors hire many of their employees from the local populace.

Construction of the proposed project will help alleviate congestion in the downtown area, as well as reducing inconvenience to through traffic.

The right-of-way required for the project will reduce the amount of taxable land, thereby decreasing the property tax revenues for Franklin County. However, taxes received as a result of increased development induced by implementation of this project will help offset this tax loss.

#### B. Direct Impacts

##### 1. Natural, Ecological or Scenic Resources Impacts

The project lies almost entirely within the city

limits of Red Bay; however, the corridor is basically rural with scattered residential development. The terrain is rolling to hilly with the dominant plant associations in the area being oak-hickory and to a lesser extent oak-hickory-pine associations.

Overstory species in the project area include several varieties of oaks and hickories, along with sweetgum and yellow poplar. Predominant understory species are dogwood, sassafras, and numerous wildflowers including blackeyed susan, butterfly weed, Carolina anemone, and oakleaf hydrangea.

Animal communities reflect the diversities of their habitat. Most animal species have preferred habitats; therefore, each plant community should have its own community of animal species inhabitants. The dominating habitat present is an oak-hickory forest. The following is a list of animals known to prefer this type of habitat for food and/or cover: wild turkey, purple grackle, eastern bluejay, brown thrasher, red-bellied woodpecker, eastern gray squirrel, raccoon, and white-tail deer.

There are some smaller areas in the corridor which are in pasture or an old field stage of succession. Animals inhabiting these fields might include bobwhite quail, mourning dove, cottontail rabbit, and numerous sparrows, finches, voles, and mice.

Of these habitats, the areas with probably the most

species diversity should be the ecotones or boundary areas where the habitats change from one stage of succession to another. This can be illustrated by the "edge effect" along old fields and wooded areas, where animals can find cover in the woods and feed relatively safely in the nearby fields on grasses and seeds.

The area within construction limits will be cleared and grubbed for the length of the project. The portion of the right-of-way which is not paved will be held to a successional stage of grasses by frequent mowing. The area once occupied by woods will then be at an earlier stage of succession; therefore, one would expect that the fauna will become represented by an increase of species which are common to open fields and the "edge" created along the woodlines and, conversely, a decrease in the abundance of those animals which inhabit the more wooded areas. No change in species diversity is expected outside of the right-of-way limits.

If the northern alternate is constructed, there would be impacts upon the reservoir on Clear Branch. These impacts will include a reduction of aesthetics values associated with the pond, as well as a reduction of total surface and bottom area and a loss of total carrying capacity for aquatic species.

There are several species of plants and animals having ranges crossed by this project which have been

designated as either "Endangered", "Threatened", or "Of Special Concern" by the Alabama Department of Conservation and Natural Resources and/or the U.S. Fish and Wildlife Service. The Ecological Report in the Appendix, "Exhibit B," contains a list of these species.

This report lists twenty species of plants on the state inventory; none are listed in the Federal Register. Each of these requires either limestone outcrops or calcareous soils for their existence. This area is totally underlain by Bangor Limestone. It is possible that one or more of these species may inhabit the project corridor. An on site inspection was made of the area and none of the listed species were found; however, most of these plants can only be positively identified during their flowering season. It is possible that some of these species may be impacted. It is also possible that new habitat may be created within the right-of-way by the removal of overstory species and the exposure of new limestone during construction.

There are five mammals listed in the report. Two of these, the gray myotis and the Indiana myotis, are listed as "Endangered" on both the Alabama and the national inventories; while the little brown myotis, the Keen's myotis, and the big-eared bat are listed as "Of Special Concern" in Alabama. The big-eared bat may be found in the following areas of Alabama: blue ridge,

piedmont, fall line hills, ridge and valley region, Appalachian plateaus, Tennessee valley, and the chert belt. The ranges of the four species of myotis are listed as state-wide. Due to their state-wide range and habitat limitations (they only live in caves), none of these animals are expected to be adversely impacted. In fact, new habitat may be created for several of the bat and myotis species by the construction of culverts which serve as cave substitutes.

Twelve birds are listed in the report, all of which have ranges covering the entire state. None of these birds are known to nest within the project area. Construction of this project is not expected to have an adverse impact on any of these species. In fact, it is known that certain raptors, like the red-shouldered hawk, use cleared highway right-of-way in forested areas as hunting grounds.

In July of 1976, the U.S. Fish and Wildlife Service, the Alabama Department of Conservation and Natural Resources, EPA and various other federal, state and local agencies, officials and individuals were contacted requesting their views and comments concerning the environmental aspects of the project. A public involvement meeting was held in July of 1977, to gather input from the local populace. The project has also been submitted to the state and regional planning agencies in accordance with Office of Management and Budget Circular A-95, and has been found to be consistent with current state plans, programs and objectives.

2. Relocation of Individuals and Families Impacts

Alternate 1 would require the relocation of approximately eighteen (18) family owners, one (1) family tenant and one (1) business owner. Alternate 2 would displace approximately twenty-five (25) family owners, three (3) family tenants and one (1) business owner. Alternate 3 would require the relocation of nine (9) family owners.

No minority families or elderly people will be displaced. Also, there are no unusually large families among those to be relocated. The income level of the displacees range from middle to low, and they appear to be long time residents of the community. The one business that will be displaced by either alternate is a small beauty shop located on the same lot as the owner's residence.

Available replacement housing located consisted of eleven (11) houses for sale and two (2) for rent. Sixty-three lots are available with another subdivision to open soon. Seven house builders are located in Red Bay.

Potential relocation assistance will be carried out according to the "Uniform Relocation Assistance and Real Property Acquisition Policies Act" of 1970. Financial assistance is available to the eligible relocatee: (a) compensate the relocatee for the costs of moving from homes, businesses and farm operations acquired for a highway project. (b) make up the difference, if any, between the amount paid for the acquired dwelling and the cost of an available dwelling on the

private market, (c) provide reimbursement of expenses such as legal fees and other closing costs incurred in buying a replacement dwelling or in selling the acquired property to the Alabama Highway Department, (d) make payment for any increased interest cost resulting from having to get another mortgage at a higher interest rate. Replacement housing payments, increased interest payments, and closing costs are limited to \$15,000 combined total.

A displaced tenant may be eligible to receive a payment, not to exceed \$4,000, to rent a replacement dwelling or room, or to use as down payment, including closing costs on the purchase of a replacement dwelling.

The assistance to be provided under specific circumstances and conditions is outlined in Relocation Assistance, a booklet prepared by the Bureau of Right-of-Way of the Alabama Highway Department. These booklets are distributed to all potentially affected groups and individuals within a proposed project corridor and are also available at the Highway Department Building in Montgomery, Alabama and the nine division offices throughout the state.

The Alabama Highway Department Relocation Officer will determine the needs of displaced families, individuals, business concerns and farm operators for relocation assistance advisory services without regard to race, color, religion, sex, or national origin. He will also offer, within sufficient time prior to displacement to allow the relocatee to negotiate for and

obtain possession of replacement housing, available fair housing - open to all persons regardless of race, color, religion, sex, or national origin, meeting the decent, safe, and sanitary standards of the State law, adequate to accommodate the relocatee. Relocation of displaced persons will be made in areas not generally less desirable in regard to public utilities and public and commercial facilities. Rents and sales prices of replacement housing offered will be priced within the financial means of the families and individuals displaced.

It is a policy of the State that no person shall be displaced from his residence by the Highway Department's federally assisted construction projects unless a comparable replacement dwelling is available or provided for the initial occupant, or an adequate replacement dwelling is available or provided for a subsequent occupant. To accomplish this policy, the following two principal points will be carried out:

1. The Alabama Highway Department will furnish to the FHWA written assurances that comparable replacement housing will be available or provided (built if necessary) for displacees who are initial occupants, or adequate replacement housing will be available or provided (built if necessary) for subsequent occupants before the initial approval of endorsement of any project is requested.
2. Construction authorization will be requested only upon verification that replacement housing is in place and has been made available to all affected persons.

Replacement properties will be made available to displaced families and individuals in the same general area from which they are being displaced and reasonably accessible to their places of employment. The Relocation Officer will also assist owners of displaced businesses in obtaining and becoming established in suitable locations. He will also supply information concerning the Federal Housing Administration home acquisition program, the Farmers Home Administration home acquisition program, the Small Business Administration disaster loan programs, and other State or Federal programs offering assistance to displaced persons and will provide other advisory services in order to minimize hardships to displaced persons in adjusting to a new location.

The State of Alabama Highway Department will comply with the liberalized payment provisions for real property acquired under previously enacted federal legislation which included extensive increase in services and payments to persons and businesses displaced by federal aided highway projects.

On rural projects such as this, many of the home owner displacees have remaining land on which they wish to relocate. In addition there are other ample lands and lots available for home sites. Under the Relocation Program as set forth herein, all relocatees, renters or owners, will be relocated with the least disruption possible.

The State will also be able to retain the dwellings

acquired for use as replacement housing, if necessary. A possible solution would be for the State to sell these structures to any displacee for the purpose of relocating to remaining land or one of the available lots in the area. There are a number of house movers in the area.

If necessary, the State will resort to the use of "last resort" housing. This can best be accomplished by the State contracting with local builders to handle any individual case that might arise.

### 3. Social Impacts

No significant adverse social impacts are anticipated to result from implementation of this project. The area traversed by the project is basically rural and there would be no actual division of communities along this corridor. The route will bypass the downtown businesses; however, these businesses are supported primarily by local trade and it is felt that this action will not disrupt the present pattern. The relocation of the small beauty shop will not have a significant effect on the economy of the community.

Displaced residents will be relocated in decent, safe and sanitary housing comparable to their present housing.

There are no special groups or classes of people that will have special problems with access to jobs, schools, churches, parks, hospitals, shopping and community services as a result of this project.

#### 4. Air Quality Impacts

Carbon Monoxide concentrations were predicted for the proposed improvement for the years 1978, 1983 and 1998 using the Caline 2 Computer Model. The worst case conditions for all of the variables produced no violation of the national ambient air quality standards, which are 35 ppm maximum one hour average concentration and 9 ppm maximum eight hour average concentration. Consequently, construction of the proposed project would not have a significant effect on air quality. For a detailed analysis, consult the Air Quality Analysis attached as "Exhibit C" in the Appendix.

Based on our review of the Air Quality Analysis and the Memorandum of Understanding with the Alabama Air Pollution Control Commission (AAPCC), we find this project to be consistent with the approved State Implementation Plan.

#### 5. Noise Impacts

Noise levels were predicted along the proposed project by utilizing a computer model based on N.C.H.R.P. 117/144. The data produced by this model indicates that ten of the 12 sites (11 residents and 1 church) analyzed would receive noise impact (1-10 decible increase) from implementation of this project; however, all of the sites will be within the design noise level of residential areas (70 dBA). For more detailed information, consult the noise analysis attached as "Exhibit

D" in the Appendix.

Any physical exterior abatement of these sites may require additional right-of-way and would cause some access control. The esthetic appearance of any wall type barrier might also have a detrimental psychological effect upon the owners of these sites. Traffic restriction measures would not have any noticeable effect. Traffic noise impacts are not considered severe, therefore, soundproofing is not considered feasible. Any abatement measures for these sites are not considered feasible or prudent.

Construction noise may cause some unavoidable short-term impacts. This impact will be lessened by prohibiting construction during normal sleep hours.

#### 6. Water Quality Impacts

This project will cross five small streams of two different drainage systems, the Tennessee River to the east and the Upper Tombigbee to the west. Clear Branch and one unnamed stream are small tributaries of the Upper Tombigbee River System. The other three streams crossed are very small unnamed tributaries of Bear Creek, which drains into the Tennessee River System. Clear Branch has been dammed, after the route survey had been run, to create a pond of approximately 15 acres which would be crossed by Alternate 2.

None of these streams have been assigned a water use classification by the Alabama Water Improvement Commission (AWIC). The project has been coordinated

with the AWIC and their comments were:

1. Precautions should be taken to insure that state turbidity standards are not violated.
2. Dikes and grassing should be employed where necessary to prevent excessive runoff and sedimentation.
3. Petroleum products, such as oils, tars, asphalts, etc., should be prevented from entering any bodies of water.

These comments will be incorporated into the development of the project.

No public surface water or ground water supplies will be affected by this project.

The water quality in these streams appears to be very good as there are no known point sources of pollution entering them.

There will not be any long term adverse impacts on these waterways as a result of this project. During construction there will be some erosion, sedimentation and turbidity increases; however, these effects will be short term in nature and can be controlled to a large extent with the use of mitigating measures. These mitigating measures are discussed in the "Construction Impacts" section of this statement. After the bridges and roadway are completed, the streams should return to normal within a short period of time. Implementation of this project should not lower the water quality of these streams.

Runoff from highway pavement and right-of-way contains various pollutants. Among these are lead compounds from fuels, asbestos from brake linings, and

various hydrocarbons and petro chemicals and products of their combustion. These chemical pollutants, if accumulated, can have an adverse effect on aquatic organisms.

All highway traffic contains a certain number of vehicles which carry hazardous cargo. There is always the possibility of an accident involving such vehicles, which could result in these hazardous substances entering one of the above streams. However, the improved safety features of the new roadway and bridges should decrease the likelihood of such an accident.

#### 7. Wetlands and Coastal Zone Impacts

This project does not encroach on a coastal zone, nor does it involve any wetlands. Therefore, construction of this project will have no impact on any wetland or coastal zone.

#### 8. Stream Modification or Impoundment Impacts

Alternate 2 would cross an impoundment of Clear Branch approximately 15 acres in size. Impacts would include a reduction of aesthetic values associated with the pond, as well as a reduction of total surface and bottom area and a loss of total carrying capacity for aquatic species.

No channel changes are anticipated at this stage of project planning.

The proposed corridor has been coordinated with the U.S. Fish and Wildlife Service. Their comments indicated that they would not have any serious objections to the project. Their recommendations for all highway projects include: that the alteration of stream channels be avoided and that measures be included to reduce siltation. A copy of their comments is included in the Appendix.

#### 9. Flood Hazard Evaluation

The proposed project will cross Clear Branch and four very small unnamed streams. Drainage structures for these stream crossings may be located within the 100 year flood plain; however, this project will not constitute a significant encroachment as defined by DOT Order 5650, Section 4(q). All of the streams involved have small drainage areas, and adequate drainage openings will be provided.

#### 10. Construction Impacts

During construction there will be some unavoidable air and noise pollution, plus some erosion and water pollution. The Alabama Highway Department specifications require the contractor to control erosion on all projects to the extent possible. This is done by the use of some temporary items during construction and permanent erosion control measures as soon as possible. The contractor is limited in the amount of erodible

material which may be exposed and he is further required, prior to beginning work, to submit in writing for approval an erosion control plan for the project. This includes the use of various materials such as rip-rap, temporary seeding, haybales, sand bags, sumps, check dams, etc. He is further prohibited from obstructing the natural flow of streams or polluting such streams.

The combating and allaying of dust during construction will be through the use of chemicals and watering. Erosion control measures outlined in FHPM 6-7-3-1 will be practiced during construction and maintenance.

Topsoil within the construction limits of the project will be removed and stockpiled for later use as a planting material on exposed soil. All areas of exposed soils will be regrassed and appropriately landscaped.

Disposal of land clearing waste, construction debris, excavation materials and residue from permitted controlled open burning of solid waste will be disposed of in accordance with Alabama Highway Department Standard Specifications and state and local solid waste regulations.

After completion of the project, any borrow pits will be dressed to obliterate any unsightly appearance and treated in such a manner that erosion will not occur and result in the pollution of the watershed area.

All utilities now in use by the public will be relocated and established when not contrary to legal requirements and codes.

Through the use of the "Alabama State Highway Department Standard Specifications for Highways and Bridges", the Alabama Highway Department incorporates aesthetics into all highway projects. This is done by selectively clearing wooded areas within the right-of-way and grassing the right-of-way with grass common to the area. The facility will be a well designed highway project oriented towards safety and aesthetics.

11. Impact on Prime Farmland

Franklin County includes 61,960 acres of land which is classified as prime farmland due to the types of soil present. Much of this land is not currently under cultivation, but is potentially prime farmland because of the soil classification. Both alternates 1 and 2 cross strips of land which have soils that are categorized as prime farmland - Alternate 1 takes approximately 16 acres, Alternate 2 takes approximately 19 acres, Alternate 3 would require approximately 14 acres. However, either alternate would take less than 3 acres of land which is actually being cultivated. Construction of either alternate route would not have a significant impact on prime farmland in Franklin County.

#### IV. ALTERNATIVES

##### A. Alternate Locations

There are three alternate locations under consideration, as illustrated on the map on page 40. All alternates bypass Red Bay to the south, with Alternate 3 being the southernmost route.

Alternate 1 is approximately 3.2 miles long with a total estimated cost of about \$10,454,000 for ultimate four lane construction. Approximately 19 families and 1 business would be displaced by the implementation of this route location.

The total estimated cost for ultimate four lane construction of Alternate 2 is approximately \$13,173,000 if the pond on Clear Branch is bridged, and approximately \$10,984,000 if the pond is filled in. The length of this route is about 2.9 miles. Construction of this alternate would relocate approximately 28 families and 1 business, which is the same business (beauty shop) that would be displaced by Alternate 1. Alternate 2 crosses a reservoir of approximately 15 acres that would not be crossed by Alternate 1 or Alternate 3. Other environmental and social impacts would be similar for each route.

Alternate 3 begins at a point on the Alabama-Mississippi State Line approximately one mile south of present Alabama 24 and extends in a northeasterly direction crossing Alabama 19 approximately 0.9 mile south of present Alabama 24 and continues in a northeasterly direction connecting with present Alabama 24 just west of Bear Creek. The length of Alternate 3 is approximately 3.61 miles. This alternate will displace nine

families and will cost approximately \$15,935,000.

#### B. Alternate Design Features

The design for a particular project is influenced by a number of considerations such as traffic volumes anticipated, area traversed (rural or urban), traffic movements, type of terrain, and topographic features. The area traversed by this project is basically rural, and the projected traffic

indicates that two traffic lanes will be sufficient for the near future. Therefore, the proposal is to build a rural two lane facility designed in accordance with the American Association of State Highway and Transportation Officials (AASHTO) standards and specifications (60 mph design speed). It is anticipated that future traffic demands will require four lanes, so enough right-of-way will be acquired at this time to accommodate an ultimate four lane facility. The additional two lanes will be built when traffic volumes increase to the point that four traffic lanes are warranted.

#### C. Alternate Modes of Transportation

Due to the nature and location of this proposal, no alternate modes of transportation were considered to be feasible for this project.

#### D. No Action Alternative

Another alternative to the proposed improvement is a course of "no action". This project is an integral link in Corridor V of the Appalachian Development Highway System, which stretches from I-55 at Batesville, Mississippi to I-24 at South Pittsburg, Tennessee. Present Alabama 24 is inadequate in geometrics and capacity to handle present and future traffic volumes. Through traffic along Alabama 24 is presently routed through Downtown Red Bay causing inconvenience to through travelers and congestion in the downtown area. Construction of this project would route the through traffic around the downtown district. A course of "no action" for this project would result in an inadequate transportation facility for the local area. Also,

this section of Alabama 24 would become a "bottleneck" in Corridor V of the Appalachian Development Highway System.

The beneficial effects of the "no action" alternative would be that any adverse environmental impacts caused by construction of the project would be avoided.

#### E. Postponing the Action

Postponing the project would have no beneficial effects: Traffic conditions would worsen as volumes increase, and any residential or commercial development along the proposed route would increase the number of relocations required. Also, rising construction costs due to inflation will increase the cost of the project accordingly.

#### F. Selected Alternate

The alternate selected for construction is Alternate 1. This alternate is the most practical from an economic, safety and engineering standpoint.

Alternate 1 cost approximately \$300,000 less than other locations considered. Alternate 2 is the shortest route; however, this alternate crosses a reservoir of approximately 15 acres and much opposition to this crossing has been expressed. Alternate 3 displaces the least number of families (nine) as compared to (nineteen) for Alternate 1 and 28 for Alternate 2; however, Alternate 3 is less desirable from an engineering and safety standpoint. Alternate 1 has the best site for the Illinois Central Railroad crossing when grades and skews are compared. The maximum horizontal alignment curvature for Alternate 1 is 2° as compared to a maximum of 3° for other alternates. Also, Alternate 1 offers

the best intersection site for crossing Alabama Highway 19. Because of the terrain, Alt. 3 offers poor sight distance for this intersection. Present traffic volumes indicate that an at grade intersection will sufficiently serve traffic flow for the Highway 19 crossing; however, studies have shown the intersection may need to be upgraded to a grade separation interchange. If this occurs, Alternate 1 offers the best location for the interchange. Ramps for the interchange on Alternate 1 offer a maximum grade of 7 percent as compared to a maximum of 10 or possibly 12 percent for other alternates.

V. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Adverse environmental effects include the dislocation of several families and one business, the acquisition of over 100 acres of land required for right-of-way, and the destruction of some wildlife habitat. There will be some erosion and water pollution from bridge and culvert construction and from clearing and grading for roadway construction. During construction, the use of construction equipment will temporarily increase air and noise pollution. After the project is completed, the levels of exhaust fumes and traffic related noise will increase as traffic volumes increase.

VI. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The local short-term uses of man's environment would be influenced somewhat by construction of this project. There will be an increase in noise and dust as a result of the operation of heavy equipment during construction. Traffic will be hindered somewhat during construction, however, detours will be utilized where necessary to permit traffic movement to continue. In most cases, displaced families are generally upgraded when relocated by the State Highway Department with a choice of as good or better living facilities and conditions.

The construction of a long lasting, well designed highway will provide safer and more efficient transportation through this area, and will give impetus to increased growth of industry and commerce. Aesthetics and erosion control will be incorporated into the project and maintained throughout its existence.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

With the exception of labor and machinery fuels used, all resources can be reclaimed in some form for other use should the need arise. The land on which the highway is constructed may be recovered if the facility is no longer needed for transportation purposes, or if a greater need arises for the area occupied by the highway.

VIII. THE IMPACT ON PROPERTIES AND SITES OF HISTORIC AND CULTURAL SIGNIFICANCE

The project has been coordinated with the Alabama His-

torical Commission and the University of Alabama Museum of Natural History. An intensive archaeological and historical survey was conducted in October of 1976 for the proposed APD corridor from the Mississippi State Line to west of Russellville. This survey was performed by a consultant of the Alabama Historical Commission as provided for in a contractual agreement between the Alabama Highway Department and the Alabama Historical Commission. A report of this survey is attached in the Appendix, Exhibit F. This survey determined that no archaeological or historical sites on or eligible for inclusion on the National Register are present within this portion of the corridor surveyed. One house listed on the "Alabama Inventory of Historic Places," the Dempsey Home in Red Bay, is located within the right-of-way limits of the proposed project. If it is satisfactory with the property owner, the Highway Department will move the structure to a nearby safe area. If the property owner does not wish to retain the structure, the Alabama Historical Commission will be given the opportunity to relocate the structure, as recommended in their report.

#### IX. COMMENTS AND COORDINATION

The Alabama - Mississippi State Line crossing has been coordinated with the Mississippi Highway Department. They are in the process of preparing an environmental assessment for their project connecting to this one at the State Line. Attached in the Appendix, page A-74, is a letter from the Mississippi Highway Department which gives their tentative approval of the general State Line crossing, and states

that they can satisfactorily connect to either of our alternate alignments.

An A-95 review of the proposed project conducted by the state and regional clearinghouses determined that the project is consistent with current state plans, programs and objectives.

A public involvement meeting was held in Red Bay on July 7, 1977, to inform the public of the proposed improvement and to solicit input from the local populace. Approximately 24 people came by during the scheduled hours: 10:00<sup>a</sup> a.m. to 12:00 noon, and 1:00 p.m. to 3:00 p.m. Most were property owners who were interested in what effect the project would have on their property. There was much interest expressed in the project and some support was voiced for each alternate, although Alternate 1 appeared to be slightly favored. From the written comments received, the general consensus was for the highway project with no specific alternate favored. Opposition to either of the alternates was primarily due to personal reasons and not because of social, economic or environmental effects.

The original Negative Declaration for project APD-355(4) presented only Alternates 1 and 2. A corridor public hearing for the proposed project was held July 16, 1979. Some of the local populace present at the hearing expressed a desire to see a third alternate south of Alternate 1 developed. Alternate 3 was developed as a result of this request and was presented in a second Corridor Hearing November 25, 1980. Most of the people present expressed a desire to see the project advanced; however, preference for project location

was divided between Alternate 1 and 3. Once again, opposition to either of the alternates was primarily due to personal reasons and not because of social, economic or environmental effects.

Views and comments were requested from various federal, state and local agencies, officials and individuals. Attached in the Appendix is a list of those to whom early coordination letters were sent. Also, in the Appendix are copies of the comments received, which are summarized below.

U.S. Environmental Protection Agency

Comment: The Corps of Engineers should be notified concerning Section 404 permit requirements. Erosion control

measures outlined in DOT's Transmittals 67 and 75 should be used. Noise abatement procedures for land clearing and construction phases of the project should be specified, and noise generated should not violate any municipal or state regulation.

Response: These suggestions will be followed.

U.S. Department of Interior, Fish and Wildlife Service

Comment: A cursory review does not indicate that the Service will offer serious objections at the permit stage. Precautions should be taken to prevent the destruction or degradation of any wetland areas.

Response: There are no wetland areas involved with this project.

U.S. Department of Health, Education and Welfare

Comment: The preliminary data submitted does not address this Department's responsibilities.

Tennessee Valley Authority

Comment: Based on the information furnished, we believe that this highway project will have no significant environmental impacts related to TVA program interests. Please submit final plans for the bridges for approval pursuant to Section 26a of the TVA Act.

Response: Plans will be submitted as requested.

U.S. Army Corps of Engineers, Nashville District

Comment: A Department of the Army permit will not be required for this project.

Federal Aviation Administration

Comment: Our review indicates there will be no significant adverse effects to the existing or planned air transportation system as a result of this project.

Alabama Department of Conservation and Natural Resources

Comment: No comments to offer at this time.

Alabama Historical Commission

Comment: A cultural resources assessment should be conducted by a professional archaeologist and the final report submitted to this office.

Response: An assessment has been conducted by a professional archaeologist and the report submitted to the Alabama Historical Commission.

Alabama Office of Highway and Traffic Safety

Comment: This office is not aware of any social, economic or environmental factors which would effect the feasibility of this project.

State Superintendent of Education

Comment: The proposed project would improve transportation in this area of Franklin County

Northwest Alabama Council of Local Governments

Comment: No adverse comments pertaining to social, economic or environmental aspects.

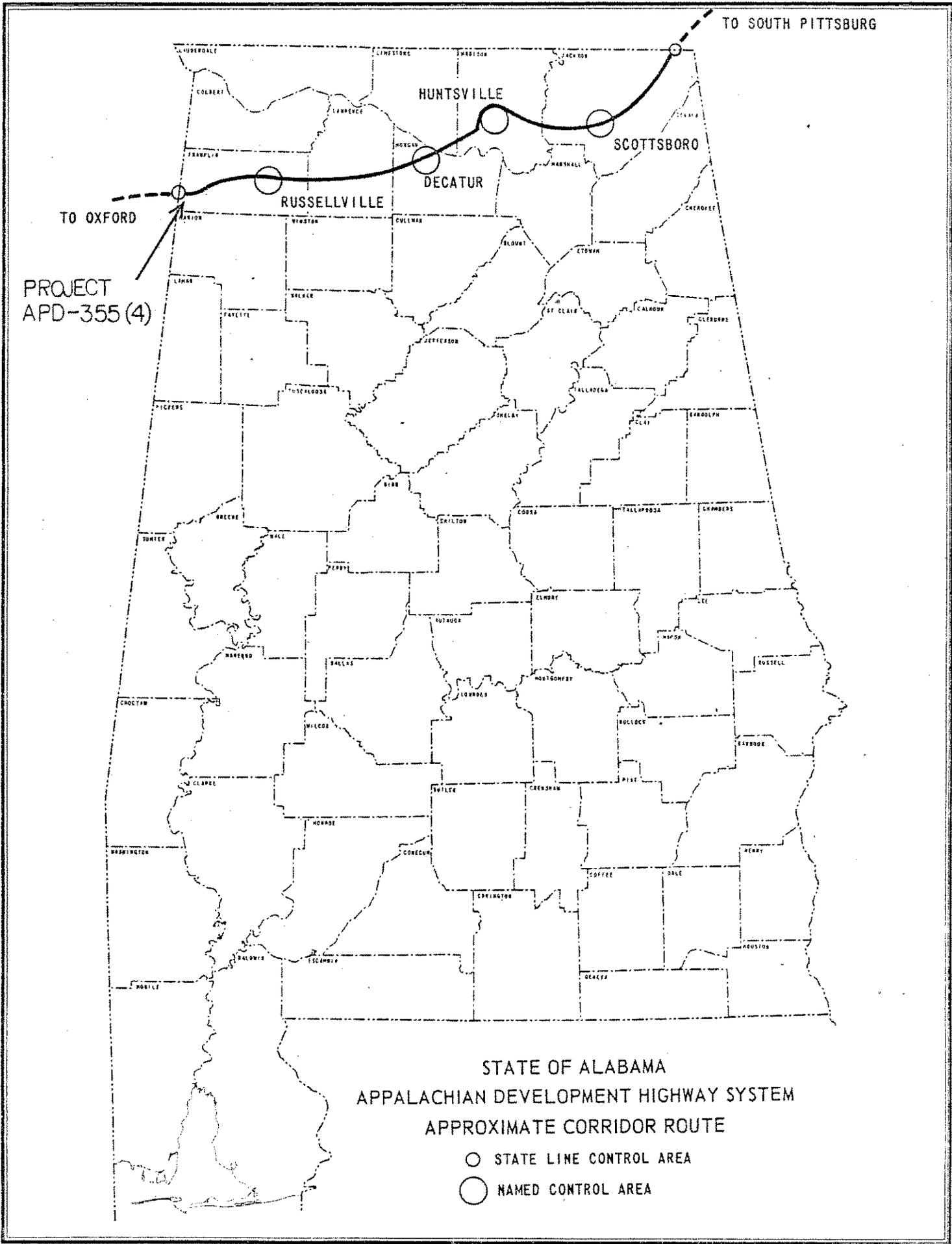
Franklin County Commission

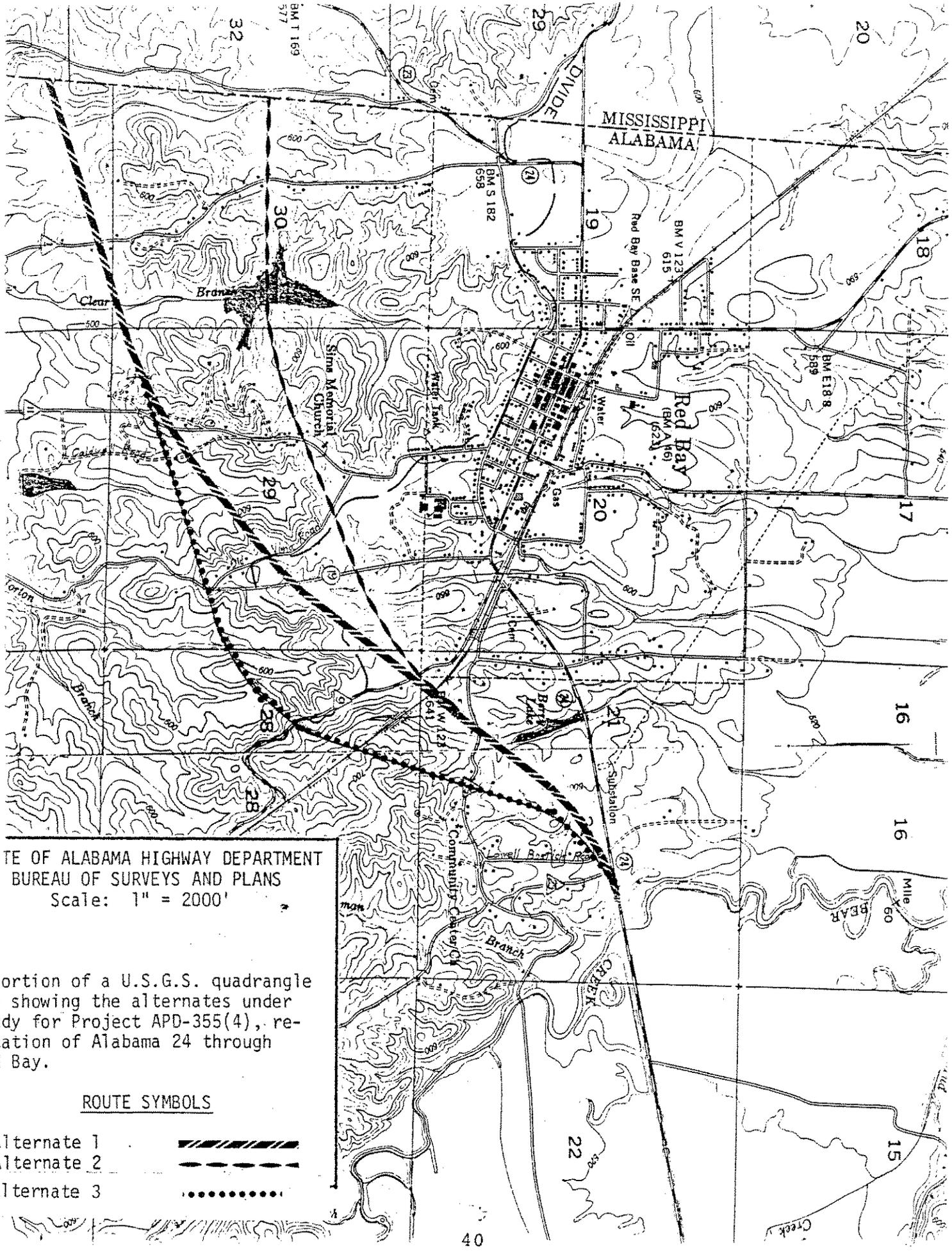
Comment: The Commission is wholeheartedly in favor of the project, and has no objection to the routes outlined.

Illinois Central Gulf Railroad

Comment: The ICG Railroad is not in a position to comment extensively upon the social or environmental effects of the proposal. Attached for your future reference is a copy of our standard requirements for overhead highway bridge construction. Ordinarily we prefer an overhead bridge to a subway carrying railroad traffic over the highway.

Response: ICG Railroad's standard requirements will be incorporated into the design of the project.





STATE OF ALABAMA HIGHWAY DEPARTMENT  
 BUREAU OF SURVEYS AND PLANS  
 Scale: 1" = 2000'

A portion of a U.S.G.S. quadrangle map showing the alternates under study for Project APD-355(4), re-location of Alabama 24 through Red Bay.

ROUTE SYMBOLS

- Alternate 1
- Alternate 2
- Alternate 3



GEORGE C. WALLACE  
GOVERNOR

STATE OF ALABAMA

ALABAMA DEVELOPMENT OFFICE

R. C. "RED" BAMBERG  
DIRECTOR

W. M. "BILL" RUSHTON  
ASSISTANT DIRECTOR

July 27, 1976

TO: Mr. J. L. Skinner, Jr.  
Alabama Highway Department  
Highway Building  
Montgomery, Alabama 36130

FROM: *Michael R. Amos*  
Michael R. Amos  
State Clearinghouse  
State Planning Division

SUBJECT: PROJECT NOTIFICATION AND REVIEW

Applicant: Alabama Highway Department

Project: Highway Research, Planning and Construction-DOT:  
To improve transportation system in Franklin County.  
APD-355(4) Project

State Clearinghouse Control Number: 20.205-1011-76

Review Complete -- Concurrence

The notification for the above project has been reviewed by the appropriate State agencies in accordance with Office of Management and Budget Circular A-95, Revised.

The review has indicated that the proposed project is in accordance with current State plans, programs, and objectives.

It will not be necessary to resubmit this proposal unless major changes are made. Please notify this office when your application is submitted to Federal Agency and upon receipt of Federal Agency action.

A-95/02

Agencies contacted for comment:

- Aeronautics Department
- Highway & Traffic Safety
- Historical Commission
- Public Safety
- Geological Survey of Alabama
- Northwest Alabama Council of Local Governments
- ADO - Sternberg



3734 ATLANTA HIGHWAY • MONTGOMERY, ALABAMA  
MAILING ADDRESS: STATE CAPITOL • MONTGOMERY, ALABAMA • 36130  
(205) 832-6810

Ecological Report for  
Project APD 355(4)  
Franklin County

Project Description

This project is the proposed relocation of the present Alabama 24 from the Mississippi Line to Bear Creek just east of Red Bay. The typical section being considered is a rural two lane facility with acquisition of enough right-of-way for an ultimate four-lane divided highway.

Area Description

The project lies almost wholly within the city limits of Red Bay; however, the corridor is rural with scattered houses. The landscape is dominated by an oak-hickory forest.

The terrain is rolling to hilly. According to the U.S. Geological Survey letter of June 29, 1976, "The corridor is underlain by the Bangor Limestone of Mississippian Age....The Bangor Limestone consists of dense gray limestone that is sporadically sandy, silty, and cherty."

Two alternate locations are being considered. These alternates parallel each other south of Red Bay running west to east from the state line to just west of Bear Creek.

These alternates cross two small streams of the Upper Tombigbee River System. Clear Creek is the larger of the two creeks. The other is unnamed. The alternates also cross three small unnamed tributaries of Bear Creek.

The northern alternate crosses a fairly large (approximately 15 acres) reservoir. The pond serves as a private recreational area.

## Plant Communities

The dominant plant associations in the area are oak-hickory community and to a lesser extent oak-hickory-pine associations. One stand of approximately 15 to 20 year old planted pines were noted near the Mississippi State Line.

Overstory species in the project area include black oak (Quercus velutina), post oak (Q. stellata), blackjack oak (Q. marilandica), white oak (Q. alba), bitternut hickory (Carya cordiformis), mockernut hickory (C. tomentosa), pignut hickory (C. glabra), sweetgum (Liquidambar styraciflua), and yellow poplar (Liriodendron tulipifera).

Understory species include dogwood (Cornus florida), sassafras (Sassafras albidum), and numerous wildflowers including blackeyed susan (Rudbeckia hirta), butterfly weed (Asclepias verticillata), Carolina anemone (Anemone caroliniana) and oakleaf hydrangea (Hydrangea quercifolia).

## Wildlife Resources

The animal communities should reflect the diversities of their habitat. Most animal species have preferred habitats; therefore, each plant community should have its own community of animal species inhabitants. It can be inferred that a variety of habitats or plant communities should be accompanied by a diversity of animal species. The dominating habitat present is an oak-hickory forest. The following is a list of animals known to prefer this type habitat for food and/or cover; wild turkey, purple grackle, eastern blue jay, brown thrasher, red-bellied woodpecker, red-headed woodpecker, eastern gray squirrel, raccoon,

and white-tailed deer.

There are some smaller areas in the corridor which are in pasture or an old field stage of succession. Animals inhabiting these fields might include bobwhite quail, mourning dove, cottontail rabbit, numerous sparrows, finches, voles and mice.

Of these habitats the areas with probably the most species diversity should be the ecotones or the boundary areas where the habitats change from one stage of succession to another. This can be illustrated by the "edge" effect along old fields and wooded areas, where animals can find cover in the woods and feed relatively safely in the nearby fields on grasses and seeds.

#### Water Resources

This project will involve five small creeks of two different drainage systems, the Tennessee River to the east and the Upper Tombigbee to the west.

Clear Branch is a small creek of the Upper Tombigbee River System. The creek has been dammed to create a 15 acre reservoir. The northern of the two alternates crosses this reservoir. The reservoir is presently used for recreation by the owners of the adjacent properties. Two other small ponds will be in close proximity just downstream of the proposed project. No "wetlands" are involved with the project.

#### Threatened and Endangered Species

There are several species of plants and animals having ranges crossed by this project which have been designated as either "Endangered", "Threatened" or "Of Special Concern" by the Ala-

bama Department of Conservation and Natural Resources and/or the U.S. Fish and Wildlife Service. (See appendices A through G for a list of species).

There are <sup>twenty</sup> ~~nineteen~~ species of plants listed. Each of these requires either limestone outcrops or calcareous soils for their existence. This area is totally underlain by Bangor Limestone. It is possible that one or more of these species may inhabit the project corridor. An on site inspection was made of the area, and none of the listed species were found; however, most of these plants can only be positively identified during their flowering season.

It is possible that some individuals of these species may be impacted. It is also possible that new habitat may be created within the right-of-way by the removal of overstory species and the exposure of new limestone during construction.

All of these plants are on the state list. They are not listed on the Federal Register.

Due to habitat limitations, none of the animals listed here are expected to be adversely impacted. In fact, new habitat may be created for several of the bat and myotis species by the construction of culverts which serve as cave substitutes. It is also known that certain raptors like the red-shouldered hawk use cleared highway rights-of-way in forested areas as hunting grounds.

#### Ecological Impacts

The area within construction limits will be cleared and grubbed for the length of the project. This will virtually eliminate this area from use by wildlife.

The portion of the right-of-way which is not paved will be held to a successional stage of grasses by frequent mowing. The area once occupied by woods will then be at an earlier stage of succession; therefore, one would expect that the fauna will become represented by an increase of species which are common to open fields and the "edge" created along the wood-lines and, conversely, a decrease in the abundance of those animals which inhabit the more wooded areas. No change in species diversity is expected outside of the right-of-way limits.<sup>1</sup>

Erosion and siltation will accompany construction activities, causing an increase in the silt load and turbidity in the receiving creeks.

Other possible water resource impacts include possible spillage of chemicals during construction and runoff from the project area which may contain various chemical pollutants used in construction. After construction impacts might include runoff from the road surface which may contain various chemicals from a combination of hydrocarbon fuels and various pesticides used in the maintenance of the right-of-way.

If the northern of the two alternates is constructed, there could be a great deal of impact upon a reservoir on Clear Branch. These impacts will include a reduction of aesthetic values associated with the pond, as well as a reduction of total surface and bottom area and a loss of total carrying capacity for game fish.

---

<sup>1</sup>Michael, 1975

## Mitigating Measures

The part of the right-of-way which is not used in construction should be selectively cut leaving the trees and shrubs which will remain in a viable state after construction.

Exposed soils should be planted as soon as possible to protect the soil from erosion. Other erosion measures which may be required are the use of the hay bale filters, temporary settling basins, silt fences, sodding and possibly reforestation.

If the northern alternate is constructed, then consideration should be given to spanning the reservoir on Clear Branch by a bridge.

## Summary

The proposed project is the relocation of U.S. 24 from the Mississippi Line to Bear Creek just east of Red Bay. The corridor is rolling to hilly and underlain by limestone.

Much of the project area is inhabited with an oak-hickory forest. Several "threatened or endangered" plants may be involved by the project.

A reservoir on Clear Creek will be adversely impacted if the northern alternate is chosen. Other water resources impacts include erosion, siltation and pollution from runoff from the roadway.

Mitigation measures as outlined in this report and those outlined in the Alabama Highway Department's, "Standard Specifications for Highways and Bridges," 1976, should be utilized.

## BIBLIOGRAPHY

1. Boschung, Herbert ed. 1976. Endangered and Threatened Plants and Animals of Alabama. Game and Fish Division of the Alabama Department of Conservation and Natural Resources and the Alabama Museum of Natural History, University, Alabama.
2. Dean, Blanche E. 1969. Ferns. Revised Edition, Library of Congress Catalogue Number 64-8956.
3. Dean, Blanche E. 1973. Wildflowers of Alabama and Adjoining States. The University of Alabama Press, University, Alabama
4. Harper, Roland M. 1944. Preliminary Report on the Weeds of Alabama. Geological Survey of Alabama Bulletin 53, University, Alabama.
5. Imhof, Thomas A. 1976. Alabama Birds. Second Edition, University of Alabama Press, University, Alabama.
6. Kormondy, E. J. 1976. Concepts of Ecology. Second Edition, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
7. Martin, A. C. 1951. American Wildlife and Plants, A Guide to Wildlife Food Habits. Dover Publications, Inc., New York.
8. Micheal, E.P. 1975. Effects of Highway on Wildlife. West Virginia Department of Highways, Charleston, West Virginia.
9. Mout, Robert H. 1975. The Reptiles and Amphibians of Alabama. Auburn Printing Company, Auburn, Alabama.
10. New England Research, Inc. Ecological Impacts of Proposed Highways. Third Edition, National Highway Institute, Washington, D. C.
11. Odum, E. P. 1971. Fundamentals of Ecology. Third Edition. W. B. Saunders Company, Philadelphia, Pennsylvania.
12. Oosting, H. J. 1956. The Study of Plant Communities. Second Edition, W. H. Freeman and Company, San Francisco.
13. Peterson, R. T. 1950. A Field Guide to the Birds, Eastern Land and Water Birds. Second Edition, Houghton Mifflin Company, Boston, Massachusetts
14. Smith, R. L. 1974. Ecology and Field Biology, Second Edition, Harper and Row, New York
15. Smith-Vaniz, E. V. 1968. Freshwater Fishes of Alabama. Auburn University, Auburn, Alabama.
16. York, H. H. 100 Forest Trees of Alabama. Alabama Forestry Commission, Montgomery, Alabama.

APPENDIX A

ENDANGERED PLANTS THAT HAVE RANGES IN THE AREA OF PROJECT  
APD-355 (4) FRANKLIN COUNTY  
THIS LISTING COMPILED FROM DATA AVAILABLE ON 06-15-78

SCIENTIFIC NAME PANAX QUINQUEFOLIUM  
COMMON NAME OR FAMILY ARALIACEAE

USUAL HABITAT IS RICH MESIC FORESTS

STATUS- ENDANGERED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
DE KALB COUNTY, FRANKLIN COUNTY, JACKSON COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME JAMESIANTHUS ALABAMENSIS  
COMMON NAME OR FAMILY ASTERACEAE

USUAL HABITAT IS STREAMBANK- WET, SUNNY PLACES WHERE STREAMS FLOW  
OVER LIMESTONE OR SHALE.

STATUS- ENDANGERED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
COLBERT COUNTY, FRANKLIN COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME LESQUERELLA DENSIPILA  
COMMON NAME OR FAMILY BRASSICACEAE

USUAL HABITAT IS FIELDS, PASTURES IN CALCAREOUS DISTRICTS

STATUS- ENDANGERED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
FRANKLIN COUNTY, MARSHALL COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME LESQUERELLA LYRATA  
COMMON NAME OR FAMILY BRASSICACEAE

USUAL HABITAT IS FIELDS AND PASTURES IN CALCAREOUS DISTRICTS

STATUS- ENDANGERED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
FRANKLIN COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME PLANTAGO CORDATA  
COMMON NAME OR FAMILY PLANTAGINACEAE

USUAL HABITAT IS CREEK BANKS IN SHADE OR FULL SUN

STATUS- ENDANGERED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
COLBERT COUNTY, FRANKLIN COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME ERIOGONUM HARPERI  
COMMON NAME OR FAMILY POLYGONACEAE

USUAL HABITAT IS LIMEROCK OUTCROPS AND CALCAREOUS CLEARINGS OR  
OPEN WOODS.

STATUS- ENDANGERED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
COLBERT COUNTY, FRANKLIN COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME LYSIMACHIA FRASERI  
COMMON NAME OR FAMILY PRIMULACEAE

USUAL HABITAT IS WOODS AND SLOPES OVER NON-CALCAREOUS ROCKS

STATUS- ENDANGERED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
STATE-WIDE.

\*\*\* \*\*

SCIENTIFIC NAME LYCOPODIUM POROPHILLUM  
COMMON NAME OR FAMILY LYCOPODIACEAE

USUAL HABITAT IS ARENACEOUS, SHADED, DRIPPING BLUFFS

STATUS- THREATENED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
FRANKLIN COUNTY, WINSTON COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME LEAVENWORTHIA ALABAMICA  
COMMON NAME OR FAMILY BRASSICACEAE

USUAL HABITAT IS LIMESTONE GLADES

STATUS- THREATENED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
FRANKLIN COUNTY, LAWRENCE COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME LINUM SULCATUM VAR HARPERI  
COMMON NAME OR FAMILY LINACEAE

NATURAL HABITAT IS OPEN, DRY BASIC SOILS.

STATUS- THREATENED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
STATE-WIDE.

\*\*\* \*\*

SCIENTIFIC NAME TALINUM MENGESII  
COMMON NAME OR FAMILY PORTULACACEAE

NATURAL HABITAT IS GRANITIC OUTCROPS AND SANDSTONE OUTCROPS.

STATUS- THREATENED IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
CAMBERS COUNTY, FRANKLIN COUNTY, JACKSON COUNTY, LEE COUNTY,  
POLK COUNTY, TALLAPOOSA COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME POLYPODIUM VIRGINIANUM  
COMMON NAME OR FAMILY POLYPODIACEAE

NATURAL HABITAT IS BLUFF WOODS, USUALLY ON SANDROCK.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
BLAIRSTOWN COUNTY, CHEROKEE COUNTY, CLAY COUNTY, CLEBURNE COUNTY,  
CUMBERLAND COUNTY, DE KALB COUNTY, ETOWAH COUNTY, FRANKLIN COUNTY,  
GADSDEN COUNTY, JACKSON COUNTY, JEFFERSON COUNTY, LAMAR COUNTY,  
MADISON COUNTY, MARION COUNTY, WALKER COUNTY, WINSTON COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME VIBURNUM RAFINESQUIANUM  
COMMON NAME OR FAMILY CAPRIFOLIACEAE

USUAL HABITAT IS WOODLANDS AND THICKETS ON NEUTRAL OR BASIC SOIL.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
STATE-WIDE.

\*\*\* \*\*

SCIENTIFIC NAME SILENE OVATA  
COMMON NAME OR FAMILY CARYOPHYLLACEAE

USUAL HABITAT IS RICH WOODS.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
STATE-WIDE.

\*\*\* \*\*

SCIENTIFIC NAME SWERTIA CAROLINIENSIS  
COMMON NAME OR FAMILY GENTIANACEAE

USUAL HABITAT IS RICH LIMESTONE WOODS.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
COLBERT COUNTY, FRANKLIN COUNTY, JACKSON COUNTY.

\*\*\* \*\*

APPENDIX B

ENDANGERED MAMMALS THAT HAVE RANGES IN THE AREA OF PROJECT  
APD-355 (4) FRANKLIN COUNTY  
THIS LISTING COMPILED FROM DATA AVAILABLE ON 06-15-78

SCIENTIFIC NAME MYOTIS GRISESCENS  
COMMON NAME OR FAMILY GRAY MYOTIS

USUAL HABITAT IS IN COLONIES THAT ARE RESTRICTED TO CAVES OR CAVE  
LIKE HABITATS ON A YEAR-ROUND BASIS.

STATUS- ENDANGERED IN ALABAMA AND ENDANGERED IN US

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
STATE-WIDE.

\*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*

SCIENTIFIC NAME MYOTIS SODALIS  
COMMON NAME OR FAMILY INDIANA MYOTIS

USUAL HABITAT IS CAVES. DECLINE DUE TO CAVE COMMERCIALIZATION.  
NOT IN EASTERN LOWER COASTAL PLAIN.

STATUS- ENDANGERED IN ALABAMA AND ENDANGERED IN US

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
STATE-WIDE.

\*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*

SCIENTIFIC NAME MYOTIS L. LUCIFUGUS  
COMMON NAME OR FAMILY LITTLE BROWN MYOTIS

USUAL HABITAT IS IN CAVES OF TIMBERED AREAS. IT ALSO USES ATTICS,  
OLD HOUSES OR CAVE SUBSTITUTES.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
STATE-WIDE.

\*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*

C NAME TALINUM CALCARICUM  
ME OR FAMILY PORTULACACEAE

HABITAT IS LIMESTONE GLADES.

OF SPECIAL CONCERN IN ALABAMA

IT IS FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
COUNTY, LAWRENCE COUNTY, MARSHALL COUNTY.

\*\*\* \*\*

C NAME SALIX SERICEA  
ME OR FAMILY SALICACEAE

HABITAT IS MARSHES DITCHES AND LOW WOODS.

OF SPECIAL CONCERN IN ALABAMA

IT IS FOUND IN THE FOLLOWING AREAS OF ALABAMA,  
COUNTY, LAWRENCE COUNTY, MARSHALL COUNTY.

\*\*\* \*\*

SCIENTIFIC NAME FALCO PEREGRINUS  
COMMON NAME OR FAMILY PEREGRINE FALCON

USUAL HABITAT IS WILD AREAS, ESPECIALLY AROUND THE TENNESSEE RIVER. DOES NOT NEST IN ALABAMA.

STATUS- ENDANGERED IN ALABAMA AND ENDANGERED IN US

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA, STATE-WIDE.

\*\*\* \*\*

SCIENTIFIC NAME DENDROCOPIUS BOREALIS  
COMMON NAME OR FAMILY RED COCKADED WOODPECKER

USUAL HABITAT IS PINEY WOODS SOUTH OF TENNESSEE RIVER, WHERE ONE QUARTER OR MORE ARE PINES. IT NESTS IN LIVING PINES WITH A DEAD HEART.

STATUS- ENDANGERED IN ALABAMA AND ENDANGERED IN US

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA, STATE-WIDE.

\*\*\* \*\*

SCIENTIFIC NAME FLORIDA CAERULEA  
COMMON NAME OR FAMILY LITTLE BLUE HERON

USUAL HABITAT IS MOIST AREAS SUCH AS LAKE SHORES, SWAMPS PONDS AND BOTTOMLANDS.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA, STATE-WIDE.

\*\*\* \*\*

SCIENTIFIC NAME MYCTERIA AMERICANA  
COMMON NAME OR FAMILY WOOD STORK

USUAL HABITAT IS WET PLACES INCLUDING SWAMPS, IN SHALLOW PONDS, SLoughS AND WET MEADOWS. IT PREFERS FRESH WATER OVER SALT OR BRACKISH.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA, STATE-WIDE.

\*\* \*\*\* \*\*

SCIENTIFIC NAME ACCIPITER STRIATUS  
COMMON NAME OR FAMILY SHARP-SHINNED HAWK

USUAL HABITAT IS THROUGHOUT THE STATE, AND IS A LOCALLY COMMON PERMANENT RESIDENT IN NORTH.

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA, STATE-WIDE.

\* \*\* \*\*

SCIENTIFIC NAME ACCIPITER COOPERII  
COMMON NAME OR FAMILY COOPER'S HAWK

USUAL HABITAT IS IN MODERATELY WOODED AREA

STATUS- OF SPECIAL CONCERN IN ALABAMA

THIS SPECIES MAY BE FOUND IN THE FOLLOWING AREAS OF ALABAMA, STATE-WIDE.

\*\* \*\*

APPENDIX F

ENDANGERED MOLLUSCS\* THAT HAVE RANGES IN THE AREA OF PROJECT  
APD-355 (4) FRANKLIN COUNTY  
THIS LISTING COMPILED FROM DATA AVAILABLE ON 06-15-78

APPENDIX G

SUMMARY OF THREATENED OR ENDANGERED SPECIES IN THE AREA OF PROJECT  
APD-355 (4) FRANKLIN COUNTY

20 PLANTS

5 MAMMALS

12 BIRDS

0 REPTILES/AMPHIBIANS

0 FISH

0 MOLLUSCS\*

\*COUNT INCLUDES ONLY THOSE MOLLUSCS ON THE FEDERAL LISTING

AIR QUALITY ANALYSIS  
PROJECT APD-355(4), FRANKLIN COUNTY  
MISSISSIPPI LINE TO RED BAY

CARBON MONOXIDE (CO) CONCENTRATIONS WERE PREDICTED AT THE RIGHT OF WAY LINES AT THE INTERSECTION OF ALABAMA HIGHWAY 24 AND TENTH AVENUE SOUTH IN RED BAY.

IT IS AT THIS LOCATION THAT THE COMBINATION OF TRAFFIC FLOW AND RIGHT OF WAY WIDTH COMBINE TO CAUSE THE WORST LOCATION. THREE WIND CONDITIONS WERE CONSIDERED IN AN EFFORT TO DETERMINE THE MAXIMUM CONCENTRATIONS WHICH WOULD OCCUR.

SELECTED WIND CONDITIONS WERE— PARALLEL TO THE PROJECT (WIND 1), PARALLEL TO THE CROSS STREET (WIND 2), AND AT AN ANGLE OF 22 DEGREES TO THE MAJOR LINE SOURCE (WIND 3). THE AVERAGE SPEED THROUGH THE INTERSECTION WAS ASSUMED TO BE 20 MILES PER HOUR.

INPUT INTO THE PROGRAM (CALINE 2) WAS, THE DESIGN HOURLY VOLUME, WHICH IS 10.0 PERCENT OF THE AVERAGE ANNUAL DAILY TRAFFIC FOR THE PROJECT (SEE FIGURE 1), THE EMISSION FACTORS (126. FOR 1978, 95.4 FOR 1983 AND 41.8 FOR 1998) OBTAINED FROM A COMPUTER PROGRAM UTILIZING THE DATA FOUND IN THE FINAL DOCUMENT ON MOBILE SOURCE EMISSION FACTORS, PUBLISHED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY, WIND SPEED OF 2.237 MILES PER HOUR, THE APPROPRIATE WIND ANGLE, PAVEMENT HEIGHT (0 FEET), RECEPTOR HEIGHT (5 FEET), DISTANCE FROM EDGE OF SHOULDER TO RECEPTOR (SEE FIGURE 1), STABILITY CLASS (E WHICH IS PRACTICAL CASE), AND THE WIDTH OF THE HIGHWAY FROM SHOULDER TO SHOULDER (SEE FIGURE 1).

PREDICTED ONE HOUR CO CONCENTRATIONS (PPM) \*

1978

	PROPOSED PROJECT			NO-BUILD		
	WIND 1	WIND 2	WIND 3	WIND 1	WIND 2	WIND 3
ALA. 24	1.16	1.03	0.22	0.0	0.0	0.0
TENTH AVE S	0.11	0.18	0.60	0.11	0.18	0.60
TOTAL	1.27	1.21	0.82	0.11	0.18	0.60

1983

	PROPOSED PROJECT			NO-BUILD		
	WIND 1	WIND 2	WIND 3	WIND 1	WIND 2	WIND 3
ALA. 24	1.08	0.96	0.21	0.0	0.0	0.0
TENTH AVE S	0.11	0.17	0.56	0.11	0.17	0.56
TOTAL	1.19	1.13	0.77	0.11	0.17	0.56

1998

	PROPOSED PROJECT			NO-BUILD		
	WIND 1	WIND 2	WIND 3	WIND 1	WIND 2	WIND 3
ALA. 24	0.69	0.61	0.13	0.0	0.0	0.0
TENTH AVE S	0.07	0.11	0.36	0.07	0.11	0.36
TOTAL	0.76	0.72	0.49	0.07	0.11	0.36

\* RECEPTOR SHOWN ON FIGURE 1

AS SHOWN BY THE TABLES, CARBON MONOXIDE LEVELS ARE LESS THAN THE ALLOWED MAXIMUM.

THE WORST PRACTICAL CONDITIONS FOR ALL THE VARIABLES PRODUCED NO VIOLATION OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS WHICH ARE 35 PPM MAXIMUM ONE HOUR AVERAGE CONCENTRATION AND 9 PPM MAXIMUM EIGHT HOUR AVERAGE CONCENTRATION. BASED ON OUR REVIEW OF THE AIR QUALITY ANALYSIS AND THE MEMORANDUM OF

UNDERSTANDING WITH THE ALABAMA AIR POLLUTION CONTROL COMMISSION,  
 (AAPCC), WE FIND THIS PROJECT TO BE CONSISTENT WITH THE  
 APPROVED STATE IMPLEMENTATION PLAN.

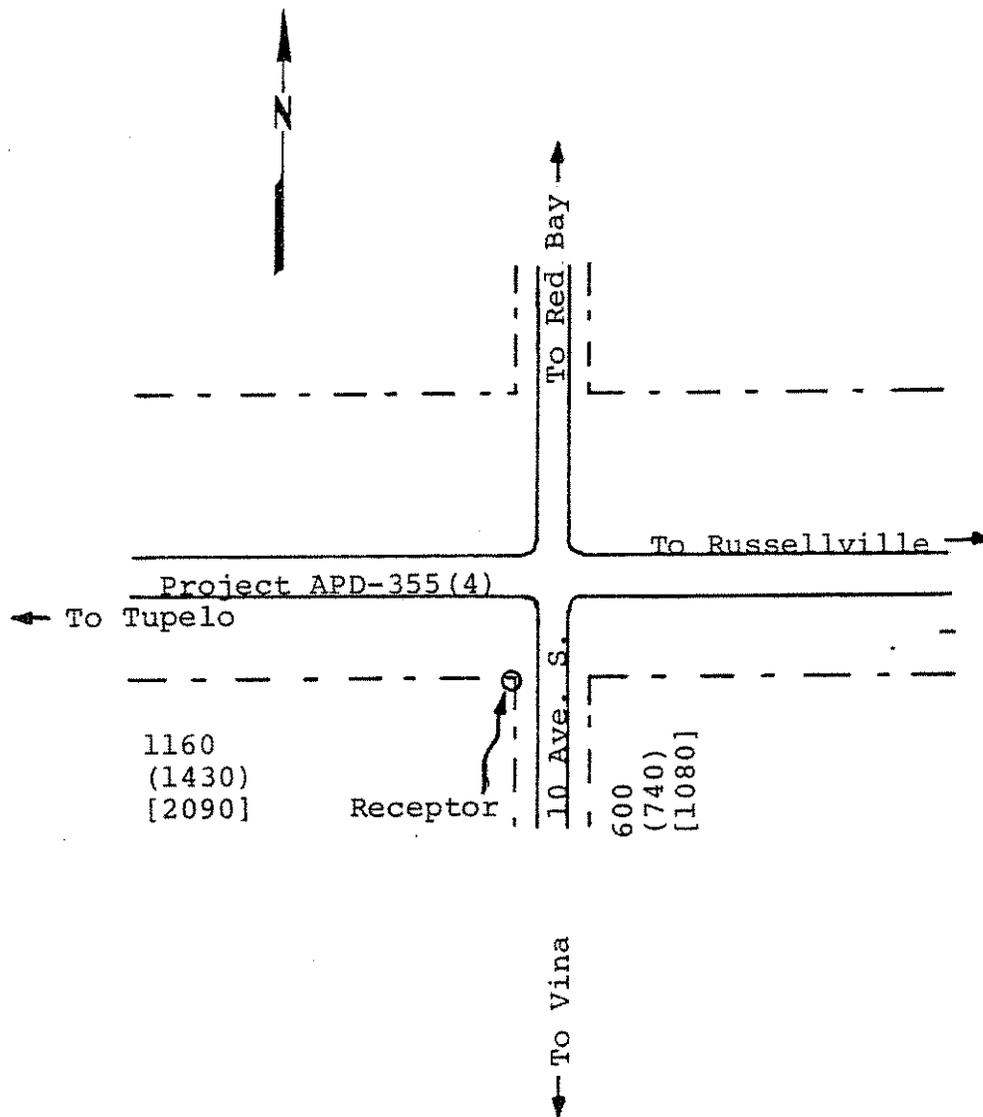


Figure I

Sketch of Intersection of  
 Project and 10th Avenue South

Scale 1" = 200'  
 100 = 1978 ADT  
 (100) = 1983 ADT  
 [100] = 1998 ADT

## PRELIMINARY NOISE STUDY

### PROJECT APD-355(4) MISSISSIPPI STATE LINE TO RED BAY FRANKLIN COUNTY

The proposed project consists of a rural highway along new location from the Mississippi State Line to the intersection of Alabama Highway 24 and the east city limits of Red Bay. It is proposed to build a rural two lane roadway at this time and acquire enough right-of-way to provide for an ultimate four lane divided facility, with the additional two lanes to be constructed at a later time. The ultimate four lane divided rural highway was the proposal considered in this study. The area traversed by the project is scattered rural strip with some spot development. Total length of the project is approximately 3.4 miles.

The noise levels were predicted utilizing a computer program based on N.C.H.R.P. 117/144. The following charts and maps show the predicted noise levels, expected impacts and the analysis sites. These sites do not contain all the residences along this route. These remaining land uses had similar noise levels or impacts and were therefore, not further considered in this report.

The guidelines set forth in FHPM 7-7-3 provided the quantitative requirements for meeting FHWA & DOT noise analysis standards. The Bureau of Planning and Programming provided the required traffic data listed in Table One.

Three basic project conditions were examined, these being current conditions, 20 year projection with project implementation and 20 year projection with current facilities. The following input data for the following conditions were used to project noise levels:

- A. Existing Conditions
  - 20' roadway width
  - infinite roadway segment
  - rural highway with 50 mph design speed
  - free traffic flow
  - $L_{10}=50\text{dBA}$  (Areas without noticeable traffic)
- B. Design year with improvements
  - four lane, divided highway, 24' roadway width
  - infinite roadway segment
  - rural highway with 60 mph design speed
  - free traffic flow
- C. Design year without improvements
  - (existing roadway systems)
  - 20' roadway width
  - infinite roadway segment
  - rural highway with 50 mph design speed
  - free traffic flow

Based upon the data produced by the approved computer model, one frame residence will have "great" impact in the design year of 1998, with or without project improvements. Nine sites will have "some" impact, but not a significant increase when comparing the proposed to the "do nothing" alternative. Seven of the nine sites which would have "some" impact remain having "some" impact with the "do nothing" alternative. Two sites will have no noise impact if the project is built. All of the sites will be within the design noise level of residential areas (70 dBA).

Any physical exterior abatement of these sites may require additional right-of-way and cause some access control. The esthetic appearance of any wall type barrier might also have a detrimental psychological effect upon the owners of these sites. Traffic restriction measures would not have any noticeable effect. Traffic noise impacts at these sites are not considered severe, therefore, soundproofing is not considered feasible. Any abatement measures for these sites are not considered feasible or

prudent.

Construction noise may cause some unavoidable short-term impacts. This impact can be lessened by limiting working hours to normal daylight operations. This practice should not disturb the sleep patterns of the majority of the affected sites along the project.

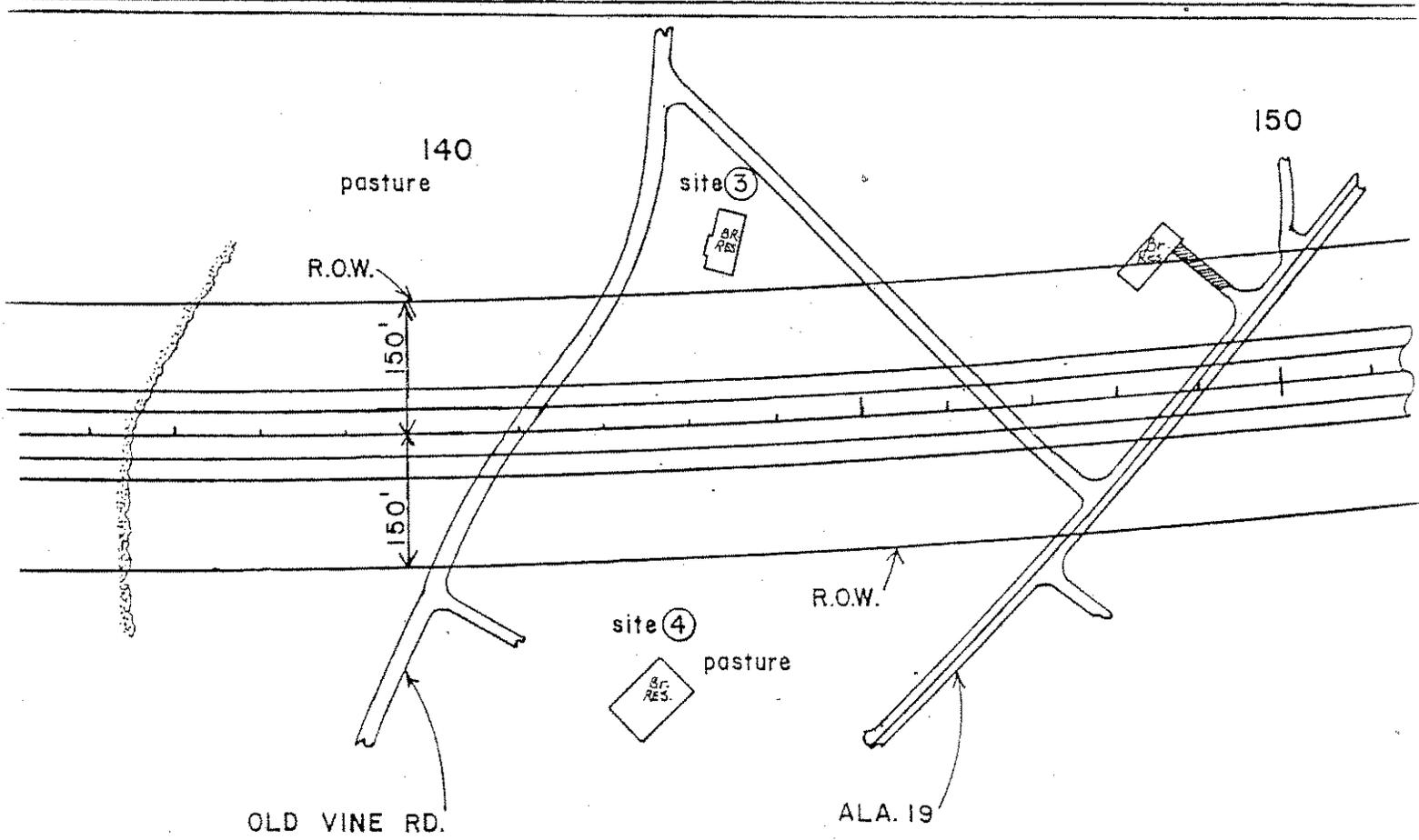
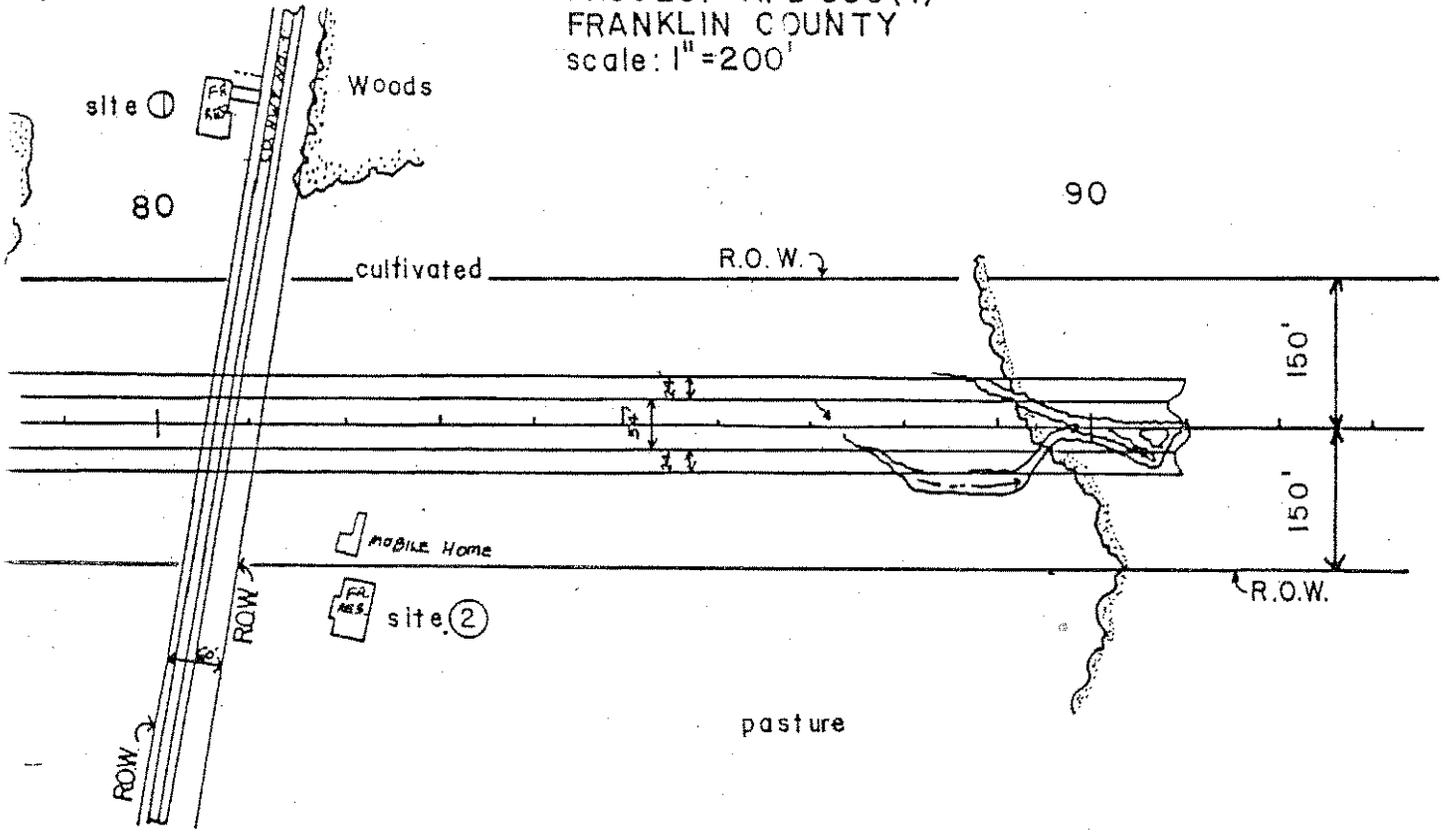
# GENERAL TRAFFIC DATA

Project APD-355(4)  
Franklin County

Location of Receptor	1978 Traffic			1998 Traffic					
				With Project			Without Project		
	ADT	K	T	ADT	K	T	ADT	K	T
1. Frame Residence @ Sta. 80+00 County Highway No. 1				1530 1240	10 11	6 1	1240	11	1
2. Frame Residence A Sta. 82+00 County Highway No. 1				2210 980	10 11	6 1	980	11	1
3. Brick Residence @ Sta. 143+50 Ala. Highway No. 19				1910 2450	10 10	6 8	2450	10	8
4. Brick Residence @ Sta. 192+50 Ala. Hwy. No. 19				1910 2350	10 10	6 8	2350	10	8
5. Frame Residence @ Sta. 173+30 County Hwy. No. 9				1580 670	10 10	6 2	670	10	2
6. Brick Residence @ Sta. 169+00 County Hwy. No. 9				1690 670	10 10	6 2	670	10	2
7. Brick Church of God @ Sta. 171+50 County Hwy. No. 9				1580 960	10 10	6 2	960	10	2
8. Brick Residence @ Sta. 190+00 Ala. Hwy. No. 24				1580 960	10 10	6 2	960	10	5
9. Brick Residence @ Sta. 210+00 Ala. Hwy. No. 24				1580 3800	10 10	6 5	4420	10	5
10. Brick Residence @ Sta. 214+00 Ala. Hwy. No. 24				1580 3800	10 10	6 5	4420	10	5
11. Brick Residence @ Sta. 219+50				3800	10	6	4420	10	5
12. Frame Residence @ Sta. 222+50				5170	10	6	4420	10	5

Table One

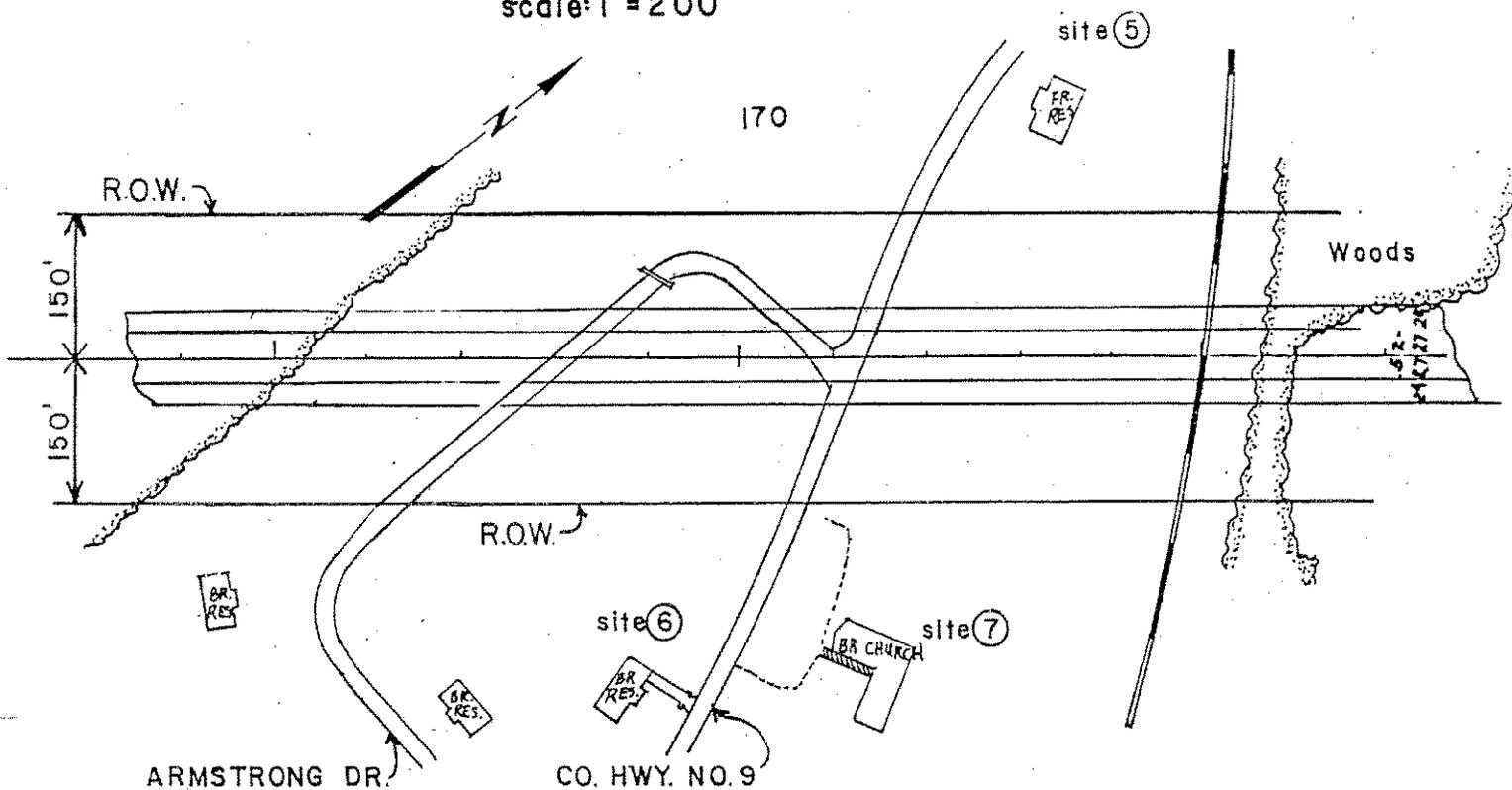
NOISE RECEPTOR LOCATIONS  
 PROJECT APD 355(4)  
 FRANKLIN COUNTY  
 scale: 1"=200'



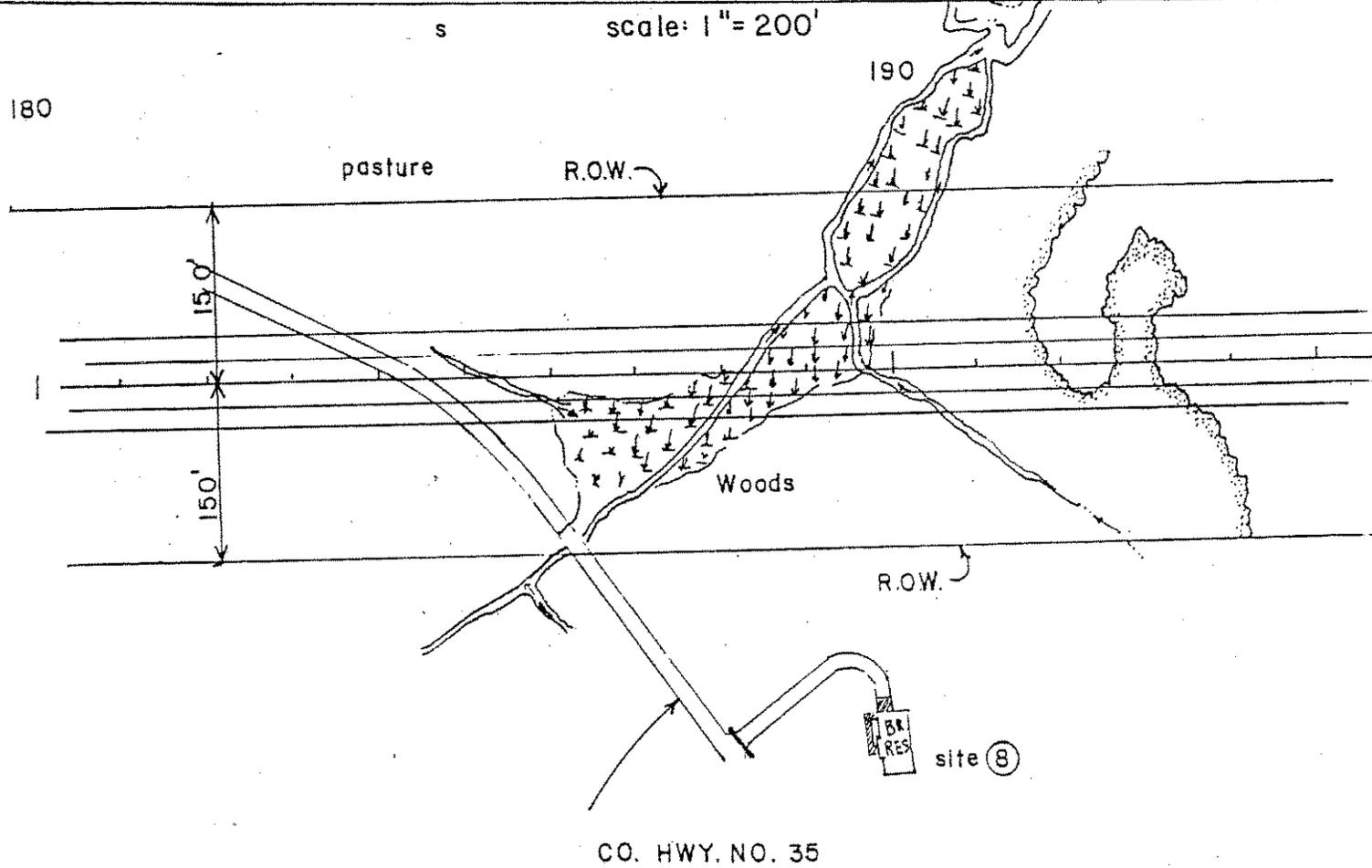
scale: 1"=200'

NOISE RECEPTOR LOCATIONS  
 PROJECT APD 355(4)  
 FRANKLIN COUNTY

scale: 1" = 200'

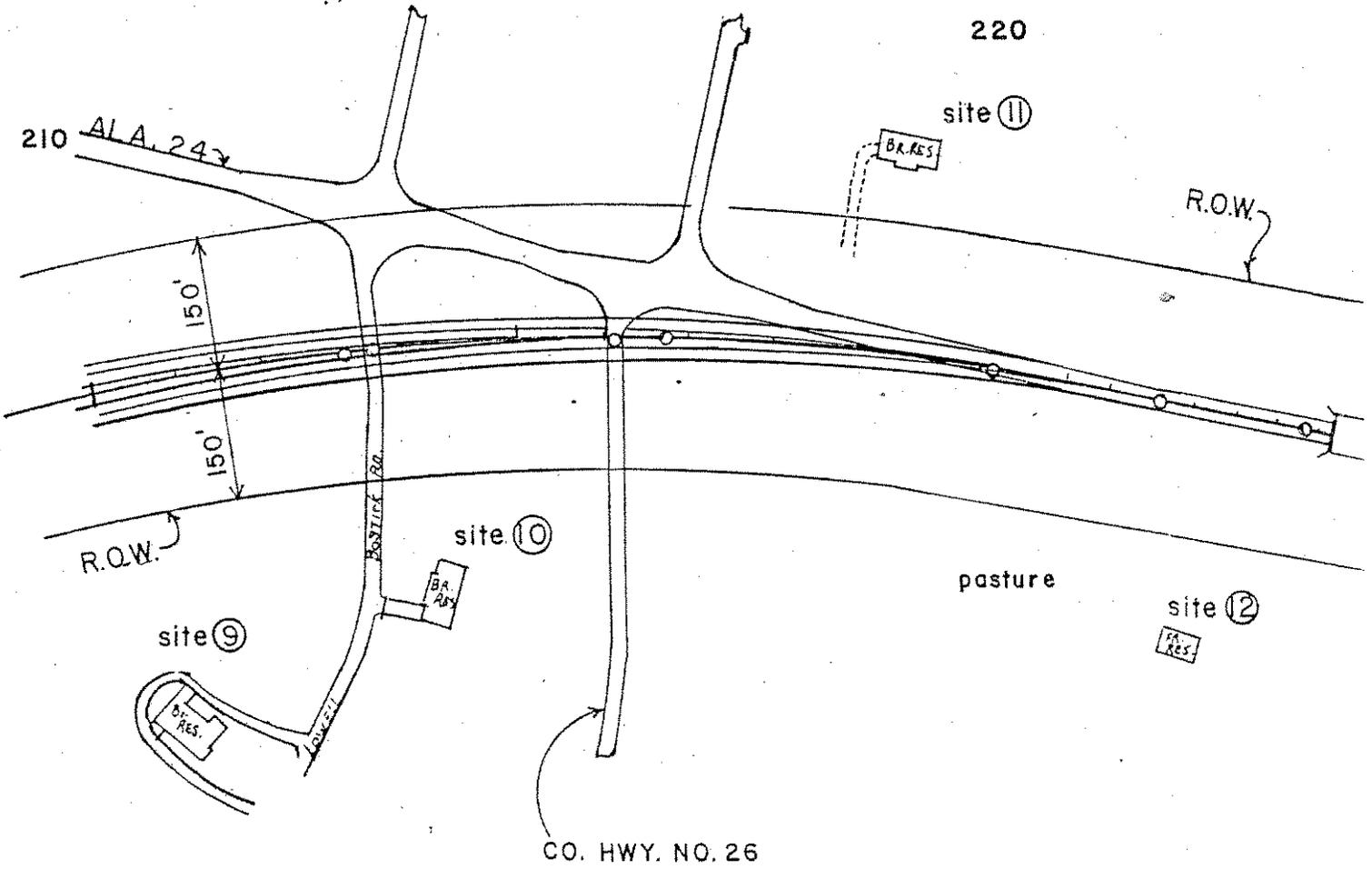


scale: 1" = 200'



NOISE RECEPTOR LOCATIONS  
PROJECT APD 365(4)  
FRANKLIN COUNTY

scale: 1" = 200'



TRAFFIC NOISE IMPACT SUMMARY FOR PROJECT APD 355 (4)  
FRANKLIN COUNTY MISSISSIPPI STATE LINE TO RED BAY

TRAFFIC NOISE IMPACT IS DETERMINED ACCORDING TO THE FOLLOWING PROCEDURES FROM TABLE B-10, NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM 117.

NO IMPACT IS EXPECTED IF THE PREDICTED NOISE LEVEL IS LESS THAN OR EQUAL TO THE DESIGN NOISE LEVEL OR IF THE PREDICTED NOISE LEVEL LESS THE EXISTING NOISE LEVEL IS LESS THAN SIX. VERY LITTLE COMMENT OR INDIVIDUAL REACTION IS EXPECTED.

\* SOME IMPACT IS EXPECTED IF THE PREDICTED NOISE LEVEL LESS THE DESIGN NOISE LEVEL IS GREATER THAN ZERO BUT LESS THAN SIX OR IF THE PREDICTED NOISE LEVEL LESS THE EXISTING NOISE LEVEL IS GREATER THAN FIVE BUT LESS THAN SIXTEEN. SOME INDIVIDUAL COMMENT AND REACTION IS EXPECTED BUT NO GROUP ACTION IS LIKELY.

\*\* GREAT IMPACT IS EXPECTED IF THE PREDICTED NOISE LEVEL LESS THE DESIGN NOISE LEVEL IS GREATER THAN FIVE OR IF THE PREDICTED NOISE LEVEL LESS THE EXISTING NOISE LEVEL IS GREATER THAN FIFTEEN. STRONG INDIVIDUAL COMMENT AND GROUP ACTION MAY BE EXPECTED.

ALL NOISE LEVELS ARE EXPRESSED AS DBA L10.

+ MEASURED EXISTING NOISE LEVEL. OTHER EXISTING NOISE LEVELS ARE PREDICTED ACCORDING TO PARAGRAPH 7.B.(3) FHPM 7-7-3.

DESIGN NOISE LEVEL IS SELECTED ACCORDING TO FIGURE 3-1 FHPM 7-7-3.

SITE	DESCRIPTION	EXISTING NOISE LEVEL	DESIGN NOISE LEVEL	1998 NOISE LEVELS	
				PROJECT	NO-BUILD
1	1-SINGLE FRAME RESIDENT LT. STA. 80+00	50 +	70	67 **	67 **
2	1-S FR. RES. RT. STA. 82+00	50 +	70	63 *	55
3	1-S BR. RES. LT. STA. 143+50	50 +	70	61 *	51
4	1-S BR. RES. RT. STA. 142+50	50 +	70	59 *	57 *
5	1-S FR. RES. LT. STA. 173+30	50 +	70	61 *	60 *
6	1-S BR. RES. RT. STA. 169+00	50 +	70	62 *	61 *

TRAFFIC NOISE IMPACT SUMMARY FOR PROJECT APO 355 (4)  
FRANKLIN COUNTY MISSISSIPPI STATE LINE TO RED BAY

SITE	DESCRIPTION	EXISTING NOISE LEVEL	DESIGN NOISE LEVEL	1998 NOISE LEVELS	
				PROJECT	NO-BUILD
7	1-S BR. CHURCH OF GOD RT. STA. 171+50	50 +	70	60 *	58 *
8	1-S BR. RES. RT. STA. 190+00	50 +	70	51	50
9	1-S BR. RES. RT. STA. 210+00	50 +	70	54	52
10	1-S BR. RES. RT. STA. 214+00	50 +	70	58 *	56 *
11	1-S BR. RES. LT. STA. 219+50	50 +	70	63 *	61 *
12	1-S FR. RES. RT. STA. 222+50	50 +	70	61 *	59 *



## ALABAMA HIGHWAY DEPARTMENT

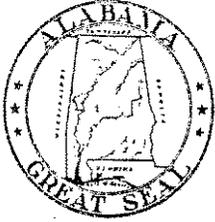
WATER QUALITY REPORT

PROJECT APD-355( )  
A COMBINATION OF PROJECTS  
APD-355(4) and BRS-3009(104)

FRANKLIN COUNTY

BUREAU OF MATERIALS AND TESTS





STATE OF ALABAMA  
HIGHWAY DEPARTMENT

MONTGOMERY, ALABAMA 36130

September 1, 1976

RAY D. BASS  
HIGHWAY DIRECTOR

Mr. J. F. Freeman, Engineer  
Bureau of Surveys and Plans  
OFFICE

RECEIVED

SEP 7 1976

Bureau of Surveys & Plans  
HIGHWAY DEPARTMENT

Attention: Mr. Paul G. Stough, Coordinator  
for the Environmental Technical Section

Re: Water Quality Report for  
Project APD-355( ) A  
Combination of Projects APD-355(4)  
and BRS-3009(104), Franklin County

Dear Sir:

The following water quality report will discuss three waterways which will be affected if the proposed project is constructed.

Summary

This project will directly affect three different waterways located in two separate drainage basins. The waterways which will be affected are Bear Creek and Mud Creek, which are tributaries of the Tennessee River Basin, and Clear Branch, which is a tributary of the Tombigbee River System.

Bear Creek is the largest of the three listed waterways. It serves as the main trunk of a large drainage area in northwest Alabama and a small section of northeast Mississippi. Although Bear Creek has been subjected to various forms of pollution in the past, the present water quality of Bear Creek, in the vicinity of Red Bay, is adequate to meet its present water use classification.

Mud Creek is a much smaller creek and is a tributary of Bear Creek. It drains only a small area on the east side of the Bear Creek Flood Plain and merges with Bear Creek a short distance downstream from the project. The flow in Mud Creek is very small at times, but the water quality is adequate for the present water use classification.

Clear Branch is located across a stream divided from Bear Creek and therefore drains into the Tombigbee River System. It is a very small intermittent branch where it crosses the project corridor.

If the proposed project is built, it will impact these three waterways. The most detrimental impacts will come during the construction phase of the project. These impacts will include erosion, sedimentation and turbidity increases. All of which will be short term in nature and most of which can be

controlled with the use of mitigation measures. Once the project has been completed, the creeks should suffer no adverse effects because of the new facility.

### Basin Description

There will be two major water basins involved on this project. They are the Tennessee River Basin and the Tombigbee River Basin.

Bear Creek and Mud Creek are both tributaries of the Tennessee River Basin. The Tennessee River Basin (see Maps Appendix A) of Alabama covers approximately 6,580 square miles in northern Alabama. The basin is drained by a segment of the Tennessee River, stretching 202 miles between the eastern and western boundaries of the state. The river in Alabama is a series of impoundments created by the Tennessee Valley Authority for the purpose of flood control, navigation, and power development.

Bear Creek is a primary tributary of the Tennessee River System. It heads in southwestern Lawrence and northwestern Winston counties. The creek then flows west by southwest passing through Franklin County, Alabama, Tishomingo County, Mississippi, and then through Colbert County, Alabama, where it merges with the Tennessee River in Pickwick Lake. At the present time, Bear Creek is basically free-flowing, but the Tennessee Valley Authority has scheduled two impoundments for construction on the creek. They are both located well upstream from the highway project, and construction will have no effect on it.

Mud Creek is a small tributary of Bear Creek. It heads in the hills just south of Halltown and flows a short distance across the Bear Creek Flood Plain and merges with Bear Creek just north of Red Bay.

Clear Branch is a tributary of the Tombigbee River System. It is a very small stream and at the extreme headwaters of the Tombigbee System.

### Water Quality and Water Use Classification

Bear Creek, which is the main body of water on this project, has a water use classification of Fish and Wildlife. This classification has been assigned to it by the Alabama Water Improvement Commission. Water quality criteria applicable to this classification can be found in Appendix B. The quality of the water in Bear Creek is quite adequate for its usage classification. There have been occasional fish kills recorded on Bear Creek, but most have been minor in nature. One of the last recorded kills was at the town of Bear Creek where chemicals for wood treatment escaped into the water. Overall, the water quality in Bear Creek is consistently good.

Water quality for Bear Creek can be found in Appendix C.

Mud Creek and Clear Branch are not assigned a water use classification in the September 17, 1973, adoption by the Alabama Water Improvement Commission.

They therefore assume a classification of Fish and Wildlife as a Goal. This classification is "A goal of water quality commensurate with the criteria applicable to a Fish and Wildlife Classification."

Both of these waterways are very small in size and have very little recorded water quality data. The water quality in these two streams appears to be very good as no known point sources of pollution are entering them. The only detriment to them at present would be in the form of farmland runoff, which might occur during extreme amounts of rainfall.

No public surface water or ground water supplies will be affected by this project. Bear Creek is used by some of the local communities, upstream from the project, as a water supply. These water supplies will not be affected by the proposed project.

#### Adverse Effects if the Project is Built

(A) Erosion - During the process of construction, erosion will increase. This will be due to the stripping of vegetation within the construction limits and the opening of cuts and fills. An attempt is made here to approximate the most probable upper and lower bounds of soil erosion during the construction life of the project. The upper bounds will be an estimate of the erosion if no mitigation measures are incorporated during construction. The lower bounds is an estimate of the amount of erosion that would occur if all the mitigation measures are used with complete success. These estimates are made through the use of the Universal Soil Erosion Equation  $A = KRLSCP$

where

- A = average annual soil loss in tons per acre
- K = soil erodibility factor - taken from table on Page 11 of Soil Loss Estimation in the Southeast
- R = rainfall - erosion factor - Figure 1 in above reference
- L = length of slope factor
- S = percent slope factor  
(Use LS, combined factors for length and percent slope - Figure 13 in above reference)
- C = crop management factor
- P = erosion control practice factor

The Universal Soil Loss Equation (see computations) contains certain factors, mainly "C" - cropping management factor - and "P" - erosion control practice factor - that are not correlative to highway construction use, and only approximate values can be used. Also, the value of soil lost under optimum conditions is probably excessive due to the fact that, during the construction, any given area is always undergoing change and therefore should never remain in the same state for anywhere near a year. This erosion equation applies to sheet erosion; rill erosion (which can be computed only after erosion has taken place) is in addition to this.

#### Upper Bounds

$$K = 0.26$$

Mr. J. F. Freeman  
Page 4  
September 1, 1976

R = 320  
LS = 1.0  
C = 1.0 Assume area is open for entire year  
P = No value Assume the worst possible conditions; ie, no temporary seeding, sediment basins, etc.

$$A = KRLSCP = (0.26)(320)(1.0)(1.0)(1.0) = 83.2 \text{ tons/acre}$$

This is a maximum/year

### Lower Bounds

Optimum Conditions (Note assumptions)

R = 320  
K = 0.26  
LS = 1.0  
C = 0.45  
P = 0.18

$$A = (0.26)(320)(1.0)(0.45)(0.18) = 6.74 \text{ tons/acre}$$

Assumptions:

- (1) Temporary seeding with good grass stands
- (2) Assume use of sediment basins approximates contour plowing
- (3) Use of grass, etc., reduces erosion, but it is impossible to relate growing season charts to temporary grass.
- (4) The project area is only open during a portion of the year.

References:

- 1) Soil Survey of Franklin County, Alabama, U.S.D.A., Soil Conservation Service, March 1965.
- 2) Wischmeier, W. H., Procedure for Computing Sheet and Rill Erosion on Project Areas, U.S.D.A., Soil Conservation Service, Technical Release No. 51, January 1975.
- 3) The "K" and "T" Factors of the Soils of the South Area, U.S.D.A., Soil Conservation Service, South Technical Service Center, Fort Worth, Texas 76115, October 1975.

According to reference number 1, sheets 49 through 51 and 40 through 42, the major soils found in the project area are Ruston fine sandy loam (RuC2) with 6 to 10 percent slopes, Cuthbert and Ruston soils (CuE) with 15 to 25 percent slopes, Savannah very fine sandy loam (SnB2) with 2 to 6 percent slopes, eroded, and Ochlockonee fine sandy loam (Oc). The respective "K" factors from the reference number 3 is RuC2 - .28, CuE - .32, SnB2 - .24, and Oc - .20. Since the project encompasses a great variety of soils and terrain, the slope and length of slope and the soil erodibility factor vary greatly throughout the project length.

From reference number 2, page 3, the rainfall erosion factor was determined to be 320.

The LS factor, or the length of slope and the degree and slope, can vary greatly in the roadway section, since they are time dependent; i.e., as grading operations continue, the slopes and slope lengths change continuously.

(B) Turbidity - There will be an increase in turbidity during construction. Construction of drainage structures within the waterway will cause short-term fluctuations in turbidity. These increases could exceed the state standards on a daily basis but should not be of long enough duration to cause significant harm to the environment. Other turbidity will be caused by erosion from cut and fill operations. This turbidity will be mostly controlled by the use of mitigation measures for erosion.

(C) Chemical Spills - All highway traffic contains a certain number of vehicles which carry hazardous cargo. A new or improved highway facility generally leads to an increase in traffic and an increase in these cargos. Therefore, the ever present threat of accidents involving these vehicles and cargos will increase somewhat.

(D) Fertilizer, Lime, Weed and Insect Controls - Many of these products will probably be used during and after construction to help establish a vegetative cover on the shoulders and slopes of the road. The possibility of small amounts of these being washed into the stream does exist.

(E) Petroleum Contamination - The likelihood of petroleum products entering the water will probably increase during construction. More of these materials will be used and stored at the job site during construction, thus creating potential threats of spills.

(F) Drainage Structures - During the construction of drainage structures such as bridges, culverts and pipes, there will be some adverse aspects to the environment. Most of these will be short term in nature and limited to the construction site. After the structure is complete, the waterway should suffer no adverse effects as a result of the structure.

#### Beneficial Effects to Water Quality if the Road is not Constructed

(A) One of the main beneficial effects of not constructing this road would be the elimination of erosion and sedimentation. This would be only a small gain, since most erosion can be controlled. (See mitigation measures)

(B) Many of the other adverse effects caused during construction of the highway would not occur if the road were not constructed.

#### Effect of the Project on Existing Water Quality Standards

The construction of this project across Mud Creek, Bear Creek, and Clear Branch will not cause any lowering of the present water use classifications assigned

to these waterways. During construction, the Alabama Highway Department will incorporate mitigation measures to insure that state water quality standards are being met. When complete, this project will be no more detrimental to the water quality than the present highway facility.

#### Effect of Highway Related Induced Growth on Water Quality Standards

The water quality standards of streams in this area should not be altered by a normal growth rate for this area. The Alabama Highway Department does not feel that this proposed facility will lead to a growth rate other than what is normal for this area. Therefore, the highway facility will not cause an increased growth which would be harmful to the present water quality.

#### Irreversible and Irretrievable Commitments Upon the Present Water Quality

All of the adverse impacts listed in this report could be considered as irreversible. They can be stopped when they occur, but any damage inflicted by them cannot be reversed. Although they cannot be reversed, they are not totally irretrievable, as most are short term in nature and the water quality will improve once the impact has been stopped.

#### Mitigation Measures

Erosion and Sedimentation - The major area of concern regarding water quality is during construction. Proper construction procedures will minimize any potential impacts to the water quality of this area.

In an attempt to minimize the potential impact of the construction on water quality, special consideration will be given during the design phase to the following items:

(a) Identification of variations in the erosive characteristics of the soils in the area so that proper protective measures may be taken.

(b) Provision for the preservation of roadside vegetation beyond the limits of construction.

(c) Designing slopes as flat as is reasonable with slope rounding and benching to minimize erosion and to promote plant growth.

(d) Provision for seeding and planting on fill slopes. Consideration of the advisability of specifying completion of planting on exposed slopes by a certain date to winterize the project, temporary planting with quick-growing cover, or tying planting time to completion of slopes.

(e) For cases where planting must be delayed, incorporation of temporary erosion protection will be considered as necessary.

(f) Design of side drains, surface, subsurface and cross drains so that they will discharge in locations and in such a manner that surface and subsurface water

quality will not be affected. The outlets may require aprons, bank protection, silting basins or energy dissipators.

(g) Provide bank protection where the highway is adjacent to rivers or streams if their velocities are erosive.

(h) Slope protection or channel lining will be included for channel changes where required. Also, provide slope protection at bridge abutments.

(i) Where the State has made arrangements for materials, borrow, or disposal sites, grading plans should be provided and reseeding required where necessary. Special provisions could be inserted requiring the contractor to furnish plans for grading and reseeding of sites obtained by him.

(j) Establish right-of-way widths of adequate space for rounding at top of cuts and bottoms of fills and for adequate slope protection ditches.

(k) Lining of all ditches subject to erosion.

(l) Temporary construction features for the control of erosion and water pollution that can be predicted should be made a part of the plans, specifications, and berms, dikes, ditches, pipes, dams, settling basins, stream diversion channels, slope drains, and crossings over live streams should be considered.

(m) Mandatory contract orders of work should be considered where their use would eliminate the expense of temporary construction or where they will result in earlier protection of erodible areas.

Actually, the Department has the power under the 1975 Standard Specification Item No. 665.0 - Temporary Erosion Control - to virtually eliminate all erosion during construction, or at least confine the erodible material to the right of way; therefore, erosion control is essentially an engineering control problem and should be closely monitored by the project engineer and division personnel.

Construction Controls - In addition to the design criteria listed above, the Alabama Highway Department's Standard Specifications include the following measures.

(a) Where working areas encroach on live streams, barriers adequate to prevent the flow of muddy water into streams shall be constructed and maintained between working areas and streams, and during construction of such barriers, muddying of streams shall be held to a minimum.

(b) Should the contractor's operations require transportation of materials across live streams, such operation shall be conducted without muddying the stream. Mechanized equipment shall not be operated in the stream channels of such live streams, except as may be necessary to construct crossings or barriers and fills at channel changes.

(c) Oily or greasy substances originating from the contractor's operations shall not be allowed to enter or be placed where they will later enter a live stream.

Mr. J. F. Freeman  
Page 8  
September 1, 1976

(d) Material derived from roadway work shall not be deposited in a live stream channel where it could be washed away by high stream flows.

(e) Sanitary facilities shall be provided at the job site which will not contaminate the ground or surface water as required by the Federal Occupational Safety and Health Act.

#### Operational Safeguards

Each year, increasing volumes of hazardous materials are transported by trucks along our nation's highways, and despite intensive law enforcement activity, an occasional accident is not only a possibility but a definite probability. Because of its nature, this form of pollution varies in its severity from year to year. According to the U.S. Environmental Protection Agency publication, "Fish Kills Caused by Pollution in 1971", transportation operation (which includes rail, truck barges or boat, and pipeline), ranked fifth in the number of reported incidents of fish kills in the nation in both 1970 and 1971.

Because it is impossible to predict the location and severity of this form of pollution, it appears that the best way to combat it is with an action plan.

The maintenance operations section of the Alabama Highway Department has implemented a program to aid its maintenance people in the identification and reporting of hazardous materials. Their maintenance manuals supplemented by regular training sessions give field personnel the following information related to spills:

- (1) Minimization of hazards to people from exposure to hazardous materials spills.
- (2) Fast and accurate reporting of accidental spills to proper authorities.
- (3) Confinement of the effects of the immediate incident by guarding against its extension or the occurrence of secondary incidents.

To assist in identification of any chemicals spilled and their possible hazardous properties, a national chemical association has formed special organization that can be readily reached at any time for assistance, by a "toll free" telephone call.

The Manufacturing Chemist Association (M.C.A.) has organized the Chemical Transportation Emergency Center, known as Chemtrec, an outgrowth of the Chem-Card program. It consists of a 24-hour communications center in Washington, D.C., where the operator has, at his fingertips, emergency information on more than 1,000 hazardous materials indexed by chemical name and common name. When called the operator at the center will give the caller initial emergency action information and put him in touch with the shipper's experts.

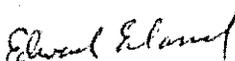
The "toll free" telephone number for this chemical association is included in the new maintenance manual mentioned above.

Mr. J. F. Freeman  
Page 9  
September 1, 1976

Another area of concern with the operation of highway, is the use of various types of pesticides, principally herbicides but including insecticides, rodenticides and fungicides are used at various locations within the highway right-of-way to control vegetation and pest infestations. The impact of these pesticides is considered negligible due to the strict observance of controls on methods, application rates and spray locations by the Highway Department personnel.

If this Bureau can be of any further assistance concerning this matter, please do not hesitate to ask.

Yours very truly,

  
Edward Eiland  
Materials & Tests Engineer

LL/sw  
ccs:  
Mr. Pat. McCartha  
Project File  
File

Attachments

WATER IMPROVEMENT COMMISSION



Ira L. Myers, M. D.  
Chairman  
State Health Officer

Claude D. Kelley  
Vice Chairman

Commissioner, Department of  
Conservation and Natural Resources

Perry Hill Office Park  
3815 Interstate Court

James W. Warr  
Chief Administrative Officer  
Montgomery, Alabama 36109

Commission Members:  
Marvin O. Berglin, Fairhope  
Dr. Robert M. Bucher, Mobile  
Charles O. Cargile, Hueytown  
Louis Gröbensteder, Huntsville

Mailing address:  
State Office Building  
Montgomery, AL 36130  
Telephone 205/277-3630

August 9, 1976

Mr. Edward Eiland  
Materials and Tests Engineer  
Alabama Highway Department  
Montgomery, AL 36130

RE: Preliminary Review of Project APD-355(4)  
Franklin County

Dear Mr. Eiland:

A preliminary review of the above-referenced project has been completed. From our limited review of the materials received, the only body of water affected appears to be Clear Branch.

Clear Branch in the area of this project has a water use classification, established by this agency, of Fish and Wildlife as a goal.

Precautions should be taken to insure that state turbidity standards are not violated. Dikes and grassing should be employed where necessary to prevent excessive runoff and sedimentation into the creeks. Petroleum products, such as oils, tars, asphalts, etc. should be handled with care and prevented from entering any bodies of water.

We hope this information is sufficient for you to proceed with the planning of this project and if you should require any additional information or assistance, please let us know.

Sincerely yours,

Tim McCartha, Biologist  
Technical Staff  
Water Improvement Commission

TMc:mc

AN INTENSIVE ARCHAEOLOGICAL AND HISTORICAL SURVEY OF THE  
STATE OF ALABAMA HIGHWAY DEPARTMENT PROJECT APD-355(4)  
IN FRANKLIN COUNTY, ALABAMA

By

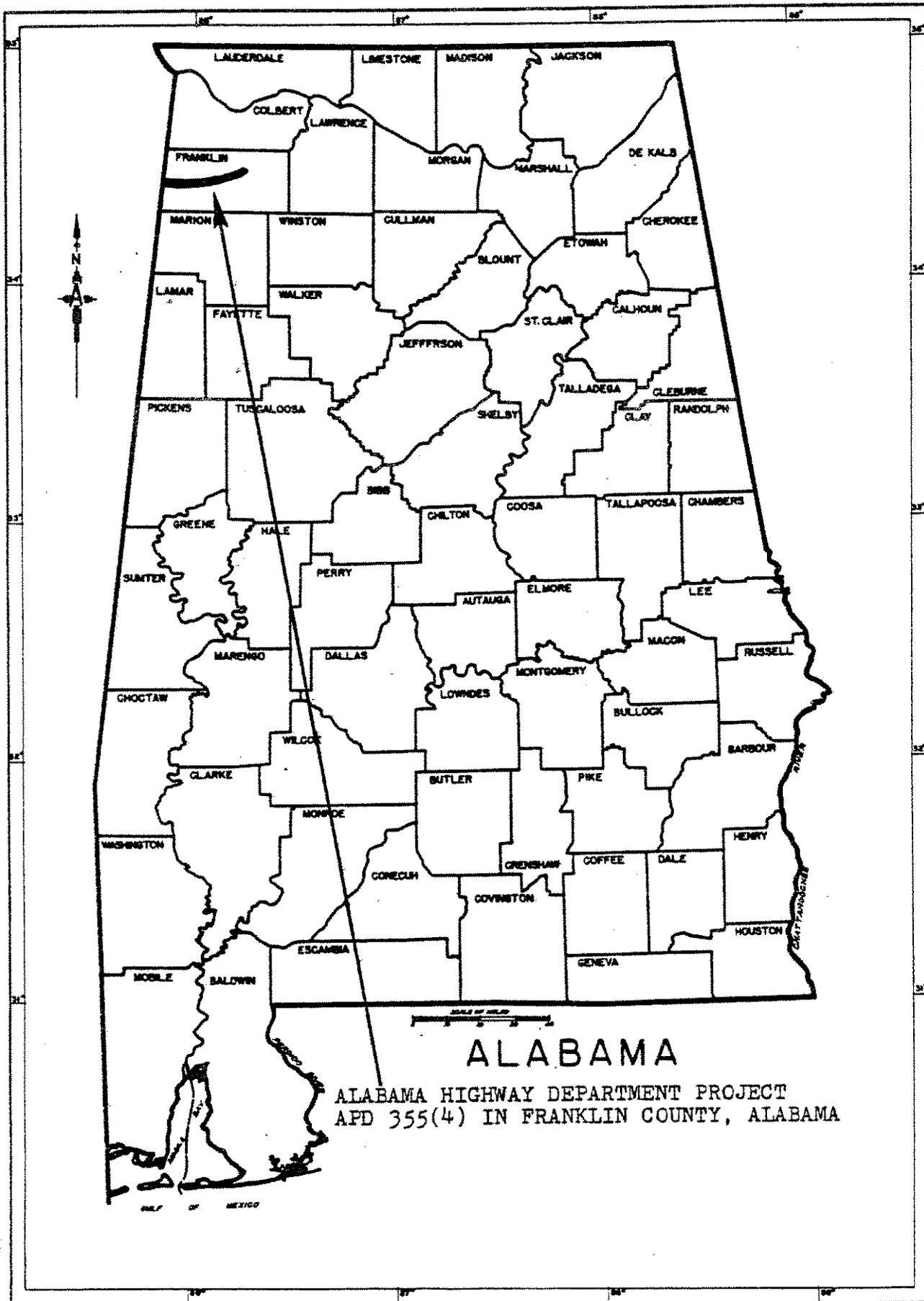
ALABAMA HISTORICAL COMMISSION  
725 Monroe Street  
Montgomery, Alabama 36130

With

W. Warner Floyd, Executive Director  
Bascom Mack Brooms, Principal Archaeologist

October 25, 1976

EXHIBIT F



AN INTENSIVE ARCHAEOLOGICAL AND HISTORICAL SURVEY OF THE  
STATE OF ALABAMA HIGHWAY DEPARTMENT PROJECT APD 355(4)  
IN FRANKLIN COUNTY, ALABAMA.

At the request of the State of Alabama Highway Department an archaeological and historical survey was completed on Project APD 355(4) in Franklin County, Alabama. The project involves highway construction from the Mississippi state line to Russellville, Alabama and will include reconstruction along portions of Alabama Highway 24 and new construction near the old route of this road.

The survey included an on the site field reconnaissance and a thorough literary search of the National Register of Historic Places, the Alabama Inventory, and state historical and archaeological files and documents.

Natural Setting

The Highway Department Project in Franklin County is located on its western side in the East Gulf Coastal Plain and on its eastern side in the Moulton Valley District of the Cumberland Plateau. The Coastal Plain is a youthful to mature area of undulating low relief. The Moulton Valley is a rolling, open lowland of low relief whose altitude is between 575 and 650 feet above sea level. In the vicinity of Russellville, a thin veneer of gravel, sand, and clay of the Coastal Plain covers the valley floor.

The soils of the area include the Yellow Podzolic Soils of the Appalachian Valleys, the Regosols of the Inner Coastal Plain and the Yellow Podzolic soils of the Cumberland Plateau. Podzolic soils are formed in a humid climate with a short or no dry period during the year. They have a layer, or "horizon" of clay accumulation which is low in organic material. Regosols are formed on recent materials such as coastal sands, and are termed azonal.

These soils support both a primarily Oak-Hickory Forest in some parts of Franklin County and an Oak-Hickory-Pine Forest in others. The Oak-Hickory Forest is usually characteristic of relatively dry sites and, in Alabama, is poorer in species than the areas surrounding it. The dominant species include white oak, red oak, southern red oak, black oak, shagbark hickory, mockernut, and pignut. Immediately south of the oak-hickory forest, the vegetation becomes diverse and intergrades fairly rapidly with a mixed pine-hardwood forest which covers a large portion of the State. In its undisturbed state this forest is thought to have consisted primarily of hardwoods with single or small clusters of pines intermixed. But with disturbances such as fire and cultivation, these pine stands have become more prevalent. The dominant species of this Oak-Hickory-Pine Forest include bitternut, mockernut, pignut hickories, white oak, post oak, northern and southern red oak, and loblolly and short-leaf pine.

#### Historical Background

Franklin County, in the northwestern part of Alabama, became a county on February 4, 1818. Russellville was the County seat until 1849 when it was moved to Frankfort where it remained until 1879, when Belgreen was chosen as the County seat. In 1891 it was removed to its present location of Russellville.

Place names in the County do not suggest Indian origin. However, in the vicinity of Belgreen, there are three aboriginal sites. Near Cedar Creek, about five miles north of the town there is an extensive village site which has not been identified. Sheep's Bluff Shelter (Rollin's Shelter) has been dated back to the Dalton Culture. About one hundred yards from Belgreen there was an aboriginal burial site. In the Russellville area are one unidentified mound, and three stone mounds believed to be burial mounds for the Middle Woodland Culture.

Since Franklin County was settled relatively early and extensively, only the historic buildings within one mile either side of the right-of-way will be mentioned. They will also be mentioned in order of location from west to east. Just south of Red Bay is the Felton Gober Place (1910), built of heart pine. The John D. Dempsey Home (1909) is east of Red Bay and immediately west of the right-of-way. West of Halltown are two prehistoric sites, 1 Fr 4 and 1 Fr 5 which will be discussed later. In Halltown is the Fowler Place (c. 1900) built by Wilson Hall in the dogtrot style. East of Burntout is Jordon's Mill on Little Bear Creek, just south of the right-of-way.

Around Dempsey and Guinn Cross Roads are several old structures. They include the Will Bentley Place (19th Century), the John D. LeMay Home (1920), the Bob Jones Home (c. 1900), the Clark Wilson Home (1910), the Garrison Ezzell Place (1905), the Evan Wilson Home (1925), the Jimmy Dobbs House (extremely old dogtrot), the Old Hester Place (1918), the Chess Hester Place (1850's), the Red Jim Ezzell House (1897), and the Andy McCollister Place (1870's). Of these the ones directly next to the right-of-way are the Bob Jones Home, originally a one room log cabin; the Evan Wilson Home; and the Garrison Ezzell Place, built of pine board lumber.

Belgreen also has a considerable number of old structures. They include the Dec Britton Home (c. 1900), the W.R. Petree Home (c. 1880), Mart Barber Mill (1943), the Mart Barber Home (1870's), Belgreen Methodist Church (1928), and the Old Sandlin Place (1880). Of these, the only one directly on the right-of-way is the Belgreen Methodist Church, which was organized in 1866.

Both Gaines Road and Jackson's Military Road to New Orleans of 1815 run through Franklin County. However they run to the east of the area under consideration. During the Civil War General John T. Croxton, General James H. Wilson, and Col. Abel B. Streight came through Franklin County on raids. Croxton and Wilson were there in the Spring of 1865, and Streight in the Spring of 1863. Also of note is the fact that Hood's pontoon

train was burned at Belgreen during this time.

There are no National Register listings for Franklin County, but numerous Alabama Inventory listings were found. The only ones of concern as to their destruction, are the Dempsey Home in Red Bay built of twelve inch board and batten, now used for hay storage; the Bob Jones Home in Dempsey which was originally a log cabin, now expanded and covered with twelve inch board and batten; and the Garrison Ezzell Home which is white frame and very well kept. These houses should not be destroyed as they are all on the Alabama Inventory.

### Prehistory of Alabama

The Indian cultures which existed in Alabama in the past have been classified into four general cultural periods: Paleo-Indian, Archaic, Woodland, and Mississippian. The chronology of these cultures has been established by stratigraphic archaeological excavations, observation of the relationship between archaeological and geological remains, dendrochronology, and radiocarbon dating.

The cultural characteristics did not change abruptly from one period to another, as there was a time of transition between each major stage. The utilization of new techniques and practices often developed at different rates in different parts of the state with many variations. However, certain basic changes did occur throughout the state some time during the progression of the cultures.

#### Paleo-Indian Culture Period - Before 8000 B.C.

The first inhabitants of Alabama came here over a long period of time. They traveled in small bands and lived a nomadic life. Existence was a constant struggle against the elements of the environment. They wandered continuously in search of food, and made camp in convenient caves and bluff shelters. Subsistence was based on large game collectively killed along streams or lakes. Sometimes the animals were trapped at passes or bluffs, where they were more easily taken.

The Paleo-Indian diet was supplemented with berries, nuts, bark, and fruit. Evidence of food storage has not been found and they probably ate only plant foods in season.

The lithic material discovered indicates that the Paleo-Indian tool assemblage consisted of points, scrapers, graters, knives, and choppers. Most of the projectile points were excellently made. They were chipped and had such features as concave bases; ground basal edges, to prevent cutting the thongs used in hafting; and central fluting, for blood letting and ease in hafting.

Archaic Culture Period - 8000 to 1000 B.C.

The primary subsistence of Early Archaic peoples was hunting and gathering, but supplemented with mussels from the river shoals and bivalves from the bays and coastal areas. Most Archaic sites are located along the rivers in Alabama and large mussel shell heaps attest to centuries of habitation at the same locales. Archaeological evidence, such as post molds and fire pits, lined with large river pebbles, indicates that the Archaic people erected huts and cooked atop the shell mounds.

During the time archaeologists call Middle Archaic, flint workshops occur. An abundance of flakes, spalls, cores, broken points, and rejects have been discovered at these workshops as well as the hammerstones and anvil stones used to manufacture the tools. New chipped tools such as celts and drills appeared during this period along with new variations of points, knives, and scrapers. Pecked, ground, and polished lithic tools were also added to the Archaic artifact assemblage. Many gorgets, axes, throwing stick weights, net sinkers, tubular pipes, stone bowls, pestles, mortars, grinding stones, and nutting stones attest to this. The use of bone and antler for awls, needles, flakers, projectile points, fishhooks, scrapers, pins, and combs also sprang up. Wooden bowls and baskets made from vines, canes, rushes, and barks were developed for the use of gathering and storing food.

The many new and different artifacts found on Archaic sites indicate that specialization in craftsmanship developed

during this period. This probably began an intensive bartering system in Alabama and the recovery of artifacts made from foreign materials indicates long-distance trade. Artifacts show that the major weapons were the throwing stick and spear. Body adornment and ceremonial activities played a more important part in the lives of Archaic people than it had in past cultures.

Woodland Culture Period - 1000 B.C. to 800 A.D.

During this period of Alabama's prehistory, populations grew and the people began inhabiting the banks of streams and creeks. The secluded villages were often small, but compact. Small, conical-shaped burial mounds were built nearby. These mounds held anywhere from one to several dozen burials and a distinct characteristic was the placement of ornaments and tools with the bodies.

The tools and ornaments of the Woodland people were similar to the Archaic peoples, but they were more varied and often showed finer workmanship. The chipped tools included celts, scrapers, knives, drills, axes, and smaller projectile points. A new chipped tool, added to the assemblage, was the spade made from either flint, limestone, or greenstone. A variety of pecked, ground, and polished stone tools included elbow, platform, and zoomorphic pipes, medicine tubes, expanding center gorgets, and effigies. Copper was used to make chisels, celts, ear spools, gorgets, beads, and bracelets. Galena, mica, hematite, tar, red ochre, and asphalt have also been found in Woodland graves. Many varieties of shell, including conch, were used as beads, dippers, body ornaments, and other tools. Evidence of fiber mats and baskets has been discovered as well as wooden house foundations.

Pottery was the major innovation during the Woodland Period. There were several methods of vessel manufacturing and numerous styles. Designs were only as limited as the creative ability of an individual. The introduction of pottery enabled the Woodland people to cook in pots, haul water, and store food.

Mississippian Culture Period - 800 to 1600 A.D.

The Mississippian Period reflected a revolutionary change in lifestyle from past cultures. It was a period of political and religious organization, sedentary agricultural villages, and city planning.

The use of earth mounds was changed from burial to ceremonial. Usually, these mounds are found in groups of one to ten and from five to thirty feet high, but on some sites as many as forty have been discovered with heights of fifty to seventy-five feet. Their placement and gradation in size appear to have been part of the village plan. Corn agriculture enabled them to live a sedentary way of life which resulted in the construction of permanent houses made of log covered in wattle and daub with thatched roofs.

The use of designs on Mississippian artifacts indicates the importance of symbolism to their society. The most popular symbols were the hand, eye, skull, arm cross, sun, star, arrow, human, bird, serpent, and spider. Their social structure included animal-named clans who worshipped a Sun God. Authority was divided between chiefs, medicine men, priests, warriors, and council men.

Many elaborate shapes and designs were imposed on their pottery vessels. More eccentric forms of the shell-tempered pottery were used in ceremonies and burials. Pottery pipes, ornaments and game disks were also manufactured. Mississippian people used many pecked, ground, polished and drilled stone objects. Among them were axes, celts, adzes, chisels, pestles, pipes, game stones, monolithic axes, effigies, spatulate forms, paint palettes, ear spools, beads, and pendants. Many of the Woodland Period chipped tools were continued, but small projectile points, triangular in shape, replaced the larger ones. Ceremonial knives, axes, and batons were added to the chipped lithic assemblage. Copper was utilized extensively for manufacturing ceremonial and ornamental artifacts.

Frequent hostilities and restlessness among the tribes were evident during the early European explorations in the

16th century. The Mississippian Period had reached its peak about 100 years before and was on the decline. This period of discontent and decline in quality of craftsmanship and social structure has been labeled the Late Mississippian or Proto-Historic Period. In Historic times or after the arrival of Europeans, conditions continued to get worse.

### Archaeological Background

The State of Alabama Highway Department Project APD 355(4) stretches from the Mississippi State Line near Red Bay, Alabama, to Russellville, Alabama, in Franklin County. The project will cross both Upper Bear and Little Bear Creeks, the locations of two major archaeological investigations in the past ten years.

Initial research began on both the Little and Upper Bear Creek Tennessee Valley Authority reservoir projects in 1967. The preliminary surface survey was followed by a series of excavations from 1968 until the completion of the final report by Mr. Jerry Nielsen in 1971. The project was sponsored by the National Park Service and was conducted by the Department of Anthropology at the University of Alabama. In 1972, the Tennessee Valley Authority sponsored an intensive archaeological survey of the Bear, Little Bear and Cedar Creek proposed reservoirs. The research was conducted by the Office of Archaeological Research at the University of Alabama and led to the excavation of twelve prehistoric sites in the Little Bear Creek reservoir during 1972 and the Summer of 1973. Since that time, excavations have continued in the Cedar Creek reservoir, but a final report has not been completed at the present time.

Investigations of the above mentioned reservoirs have led to the discovery of prehistoric man in the vicinity of the highway project from Archaic through Mississippian times. These excavations have enlightened us as to the settlement patterns utilized by the early inhabitants as well as their hunting practices, food preparation, pottery and lithic tool manufacturing techniques and burial customs.

An archaeological project of direct significance to the Alabama Highway Department Project APD 355(4) was conducted in March and April of 1975 by the University of Alabama. It involved the preliminary investigation of two prehistoric sites, 1 Fr 4 and 1 Fr 5. Both of these sites will be destroyed by the proposed highway construction. However, the investigators did not recommend further investigations upon the completion of their excavations. Their opinion was based upon the severe destruction of the site caused by past road construction, intense plowing, and natural erosion. The cultural evaluation of both sites suggested that occupation was greatest during the Early Archaic Period. Sporadic occupations by other groups during the Late Archaic, Early Woodland, and Mississippian Periods were also evident and suggest that the two sites were utilized as intermittent hunting camps.

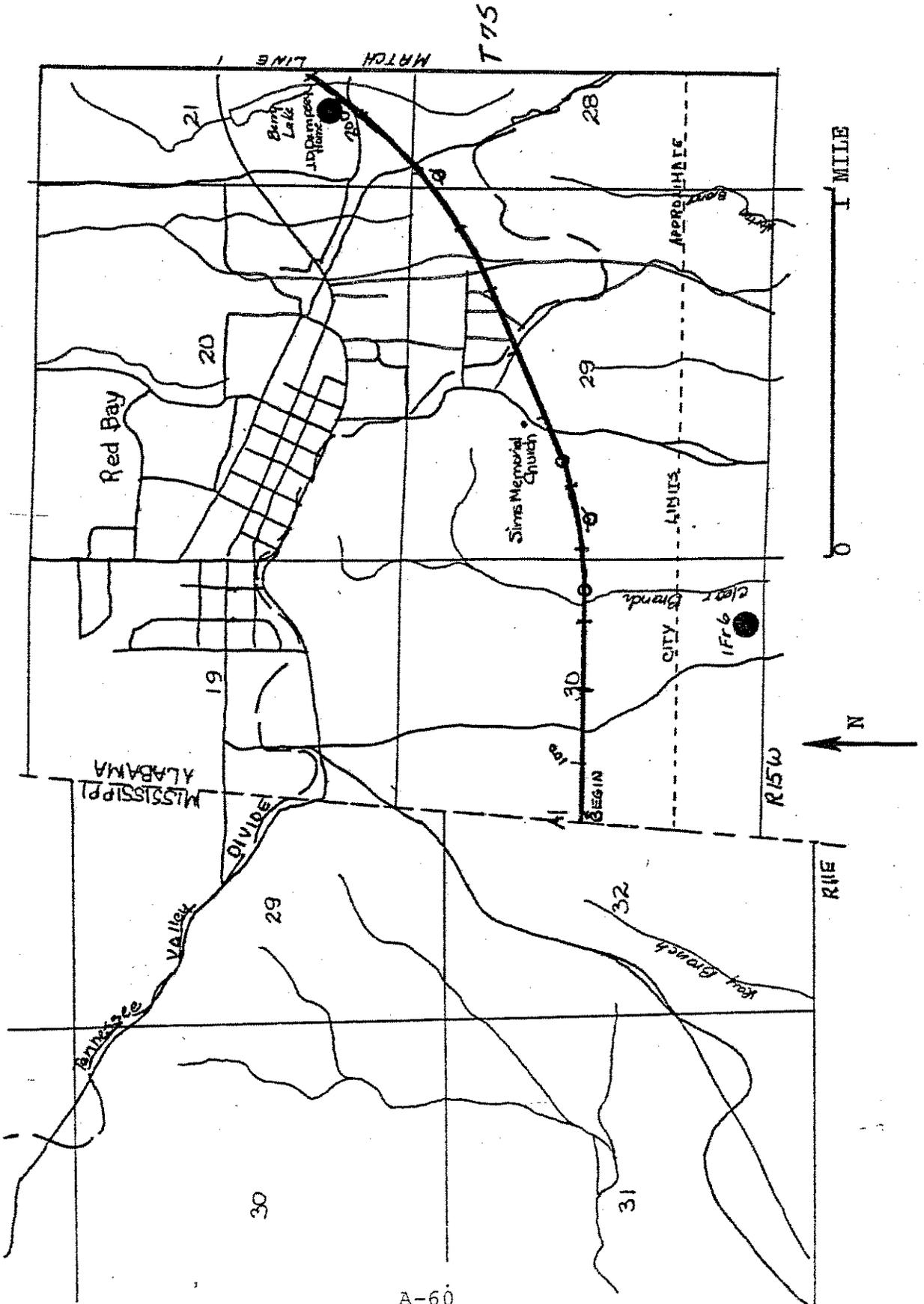
#### Field Reconnaissance

The field reconnaissance was conducted by an on the surface survey. It also included a test pit investigation in probable areas within the project boundaries for the location of sites. As a result of this survey, six previously unknown prehistoric sites were recorded, two documented archaeological sites were re-examined, and six historically and architecturally important structures were visited. All of the above mentioned will be destroyed or threatened by the proposed highway project.

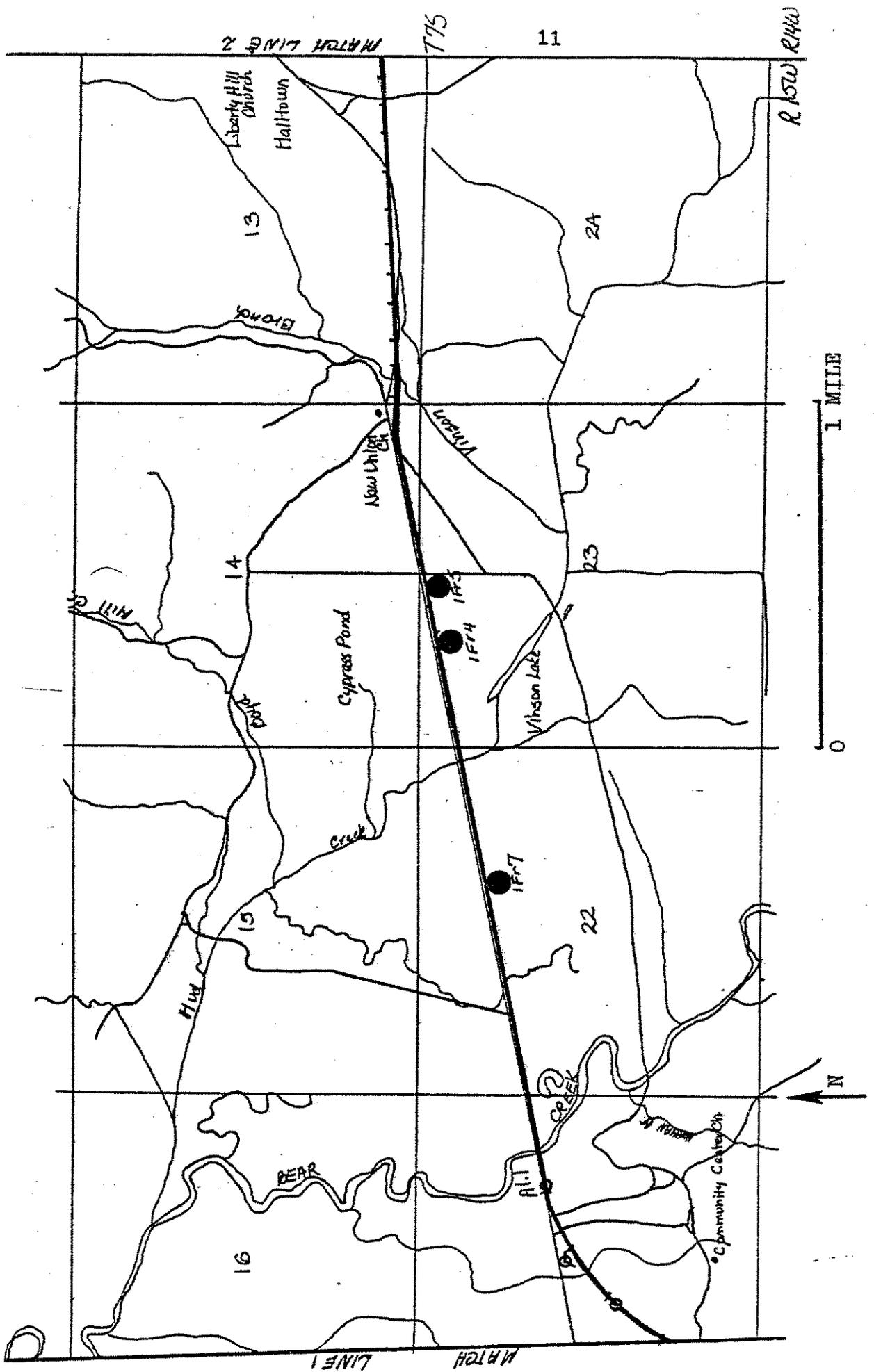
During the field reconnaissance it was learned from the Highway Department surveying team that an alternate route from the Mississippi State line to Bear Creek was proposed. This alternate route is not shown on the map on Page 10 of this report, but it was investigated. It is south of the route mapped and runs through 1 Fr 6.

The highway project will cross through the floodplain of three major creeks and several smaller creeks and branches in Franklin County. Although some of these floodplain areas did

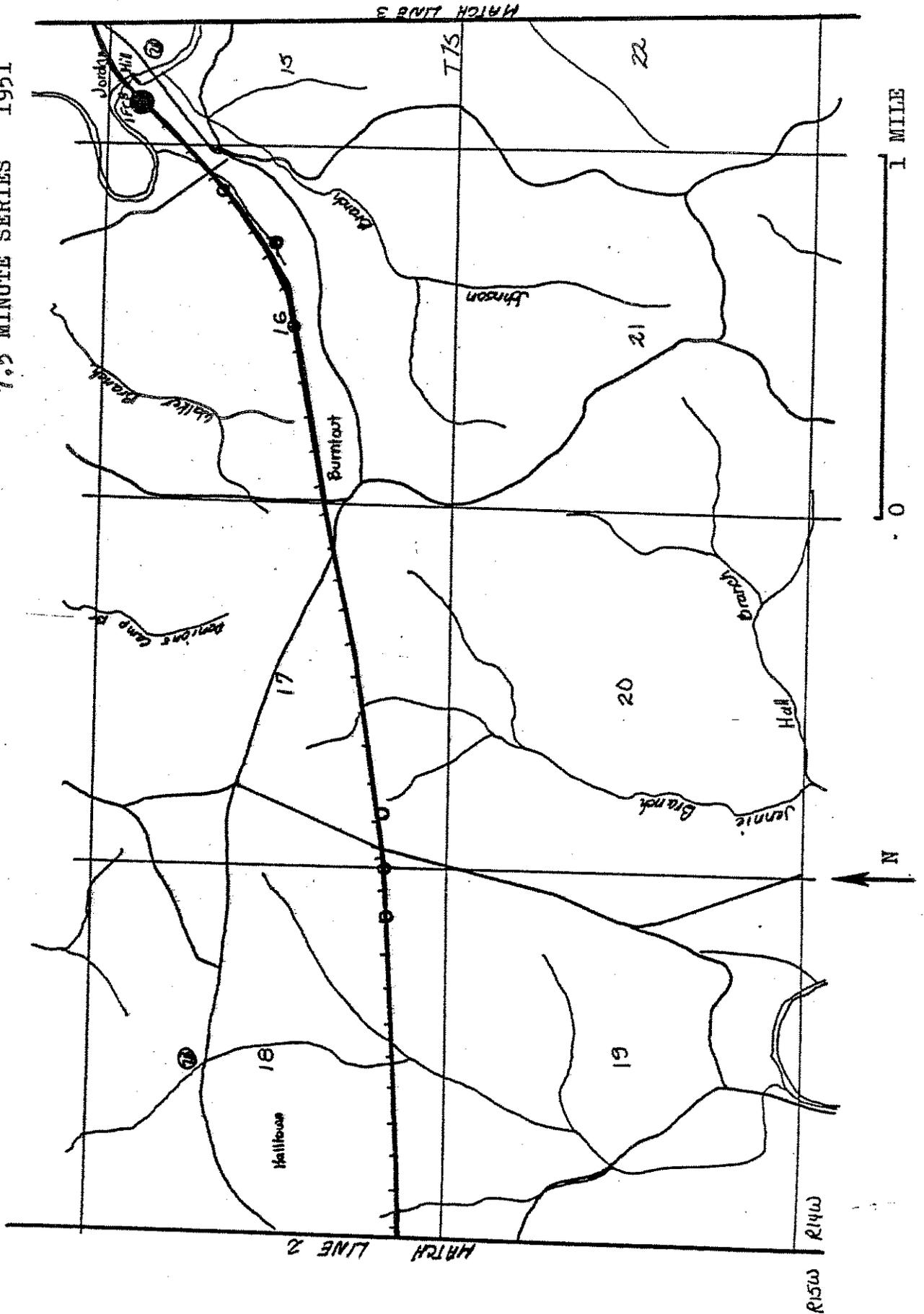
RED BAY QUADRANGLE  
FRANKLIN COUNTY, ALABAMA  
7.5 MINUTE SERIES 1951



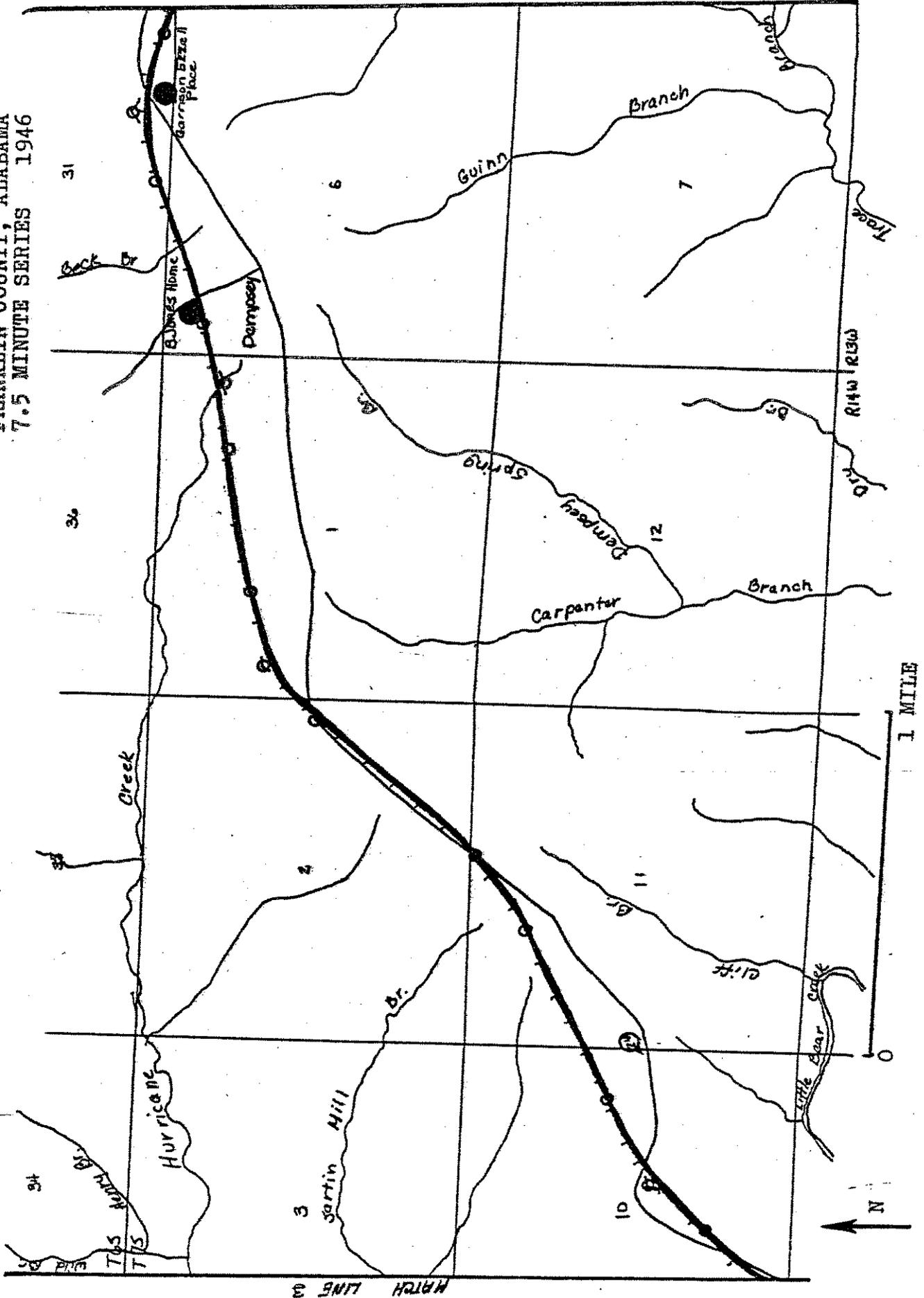
HALLTOWN QUADRANGLE  
 FRANKLIN COUNTY, ALABAMA  
 7.5 MINUTE SERIES 1951



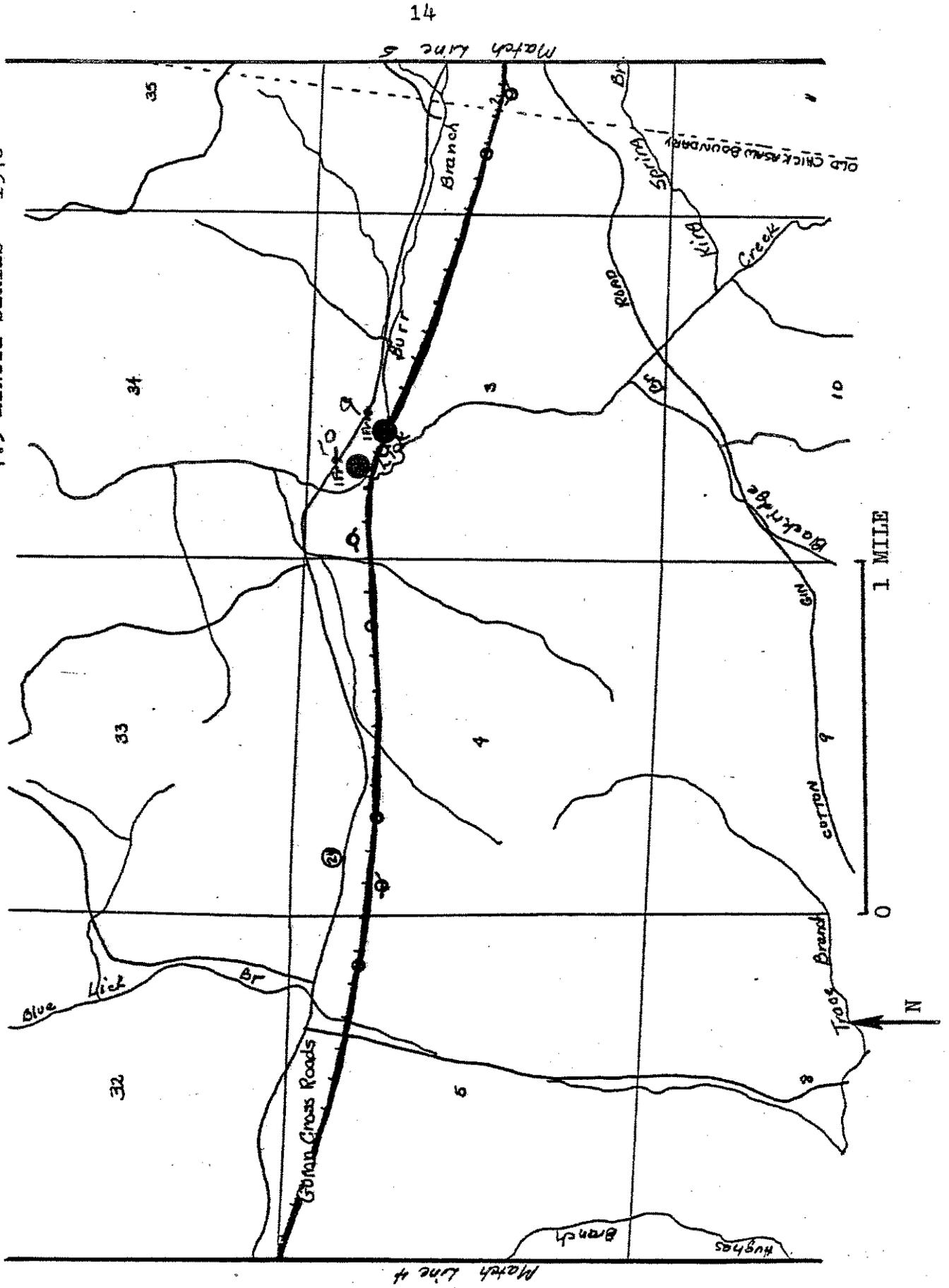
HALLTOWN QUADRANGLE  
FRANKLIN COUNTY, ALABAMA  
7.5 MINUTE SERIES 1951



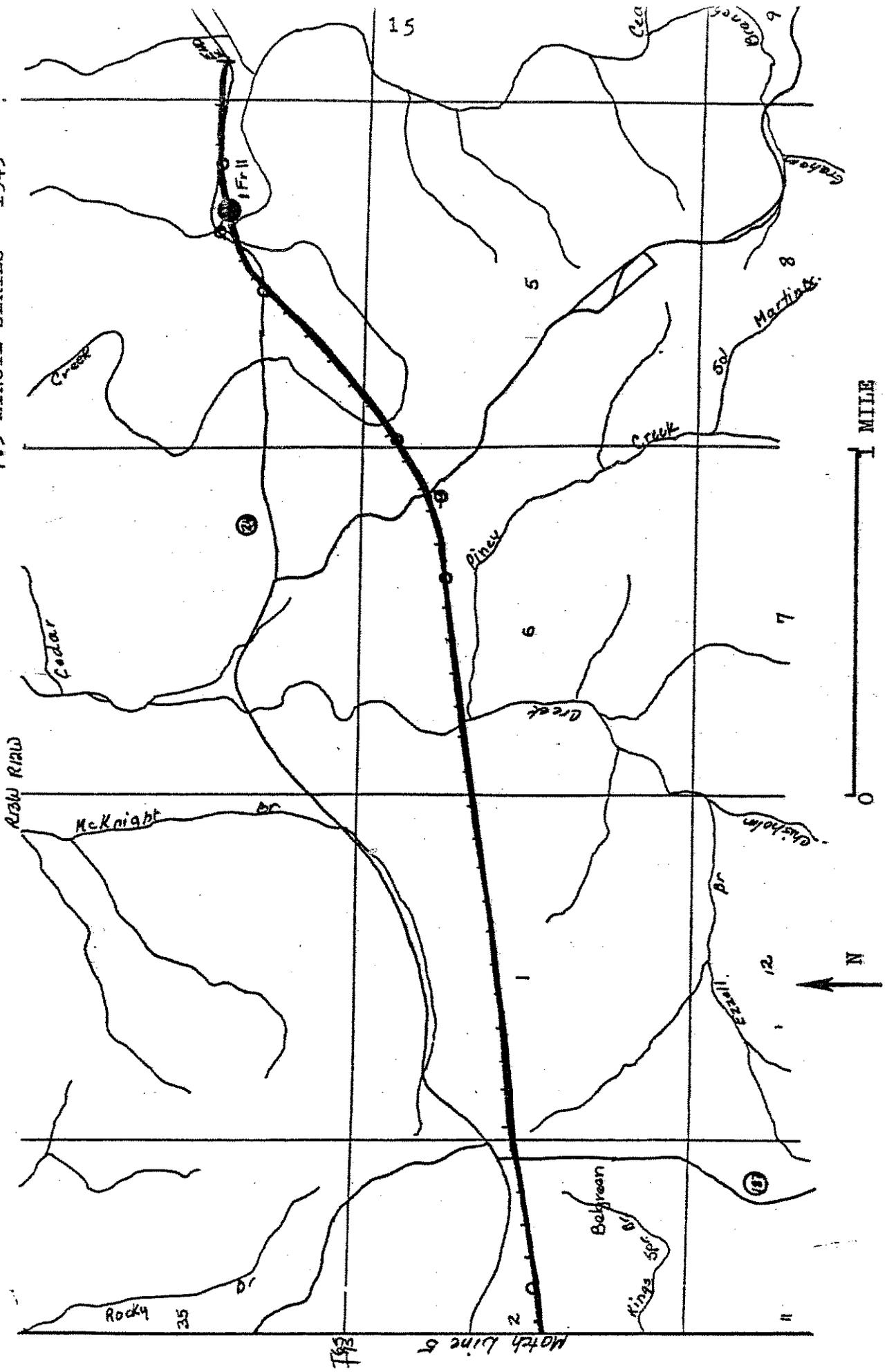
GUIN CROSS ROADS QUADRANGLE  
 FRANKLIN COUNTY, ALABAMA  
 7.5 MINUTE SERIES 1946



GUIN CROSS ROADS QUADRANGLE  
 FRANKLIN COUNTY, ALABAMA  
 7.5 MINUTE SERIES 1946



ISELL QUADRANGLE  
 FRANKLIN COUNTY, ALABAMA  
 7.5 MINUTE SERIES 1945



not contain prehistoric sites, the eight that will be destroyed were located in this type of terrain. No habitational locales, burial mounds, or other type of archeological sites were discovered on the ridges or on their normally steep slopes; the type of terrain through which much of the project will cross.

### Prehistoric Sites

1 Fr 4 and 1 Fr 5 - These are the two sites upon which preliminary excavations were conducted by the University of Alabama in 1975. Both are located on top of small eroded knolls within the broad floodplain of Bear Creek in the northeast quarter of the northwest quarter of Section 23, Township 7 South, Range 15 West. The artifacts from the sites suggest a major occupation during the Early Archaic Period and sporadic occupation by later groups during the Late Archaic to Early Woodland Period and also during the Mississippian Period. Cultivation, past road construction, and natural erosion have severely damaged both sites to the point that further excavations are not warranted. However, during road construction an archaeologist should be present in the event that burials, storage pits, or other features should be revealed once the topsoil is removed.

1 Fr 6 - This site is located on a gentle slope on the west bank of Clear Branch in the southwest quarter of the southeast quarter of Section 30, Township 7 South, Range 15 West. 1 Fr 6 is in the path of the newly staked alternate route which is not shown on the report maps. Artifacts recovered were biface knife fragments, a projectile point distal end, and lithic debris of pink chert. They suggest that the locale was used as a small camp site during the Late Archaic Period. 1 Fr 6 is currently in pasture and is badly eroded. The disturbed nature of this very sparsely scattered lithic site negates the need for further investigation.

1 Fr 7 - This site is in the vicinity of 1 Fr 4 and 1 Fr 5 along the broad floodplain of Bear Creek. It is legally

located in the southwest quarter of the northeast quarter of Section 22, Township 7 South, Range 15 West. 1 Fr 7 is not on a prominent knoll, but rather in an area that probably floods a great deal. The artifacts suggest an Early to Late Archaic Period occupation and may have been inhabited only sporadically as a camp site. The cultural material has been disturbed by extensive cultivation for so many years that it is impossible to tell if this is one large site or several mixed together. The vastly scattered nature of the site makes extensive excavation impractical. Controlled test squares should, however, be excavated on the site along the area to be disturbed by road construction.

1 Fr 8 - This site is located on the west bank of Little Bear Creek in the northwest quarter of the northwest quarter of Section 15, Township 7 South, Range 14 West near Jordan's Mill. It has been disturbed due to erosion, cultivation, the construction of a house and a mill, and it is also the location of a hog parlor. Lithic material was sparsely scattered, but suggested the site was inhabited during the Late Archaic Period. Further investigations are not recommended for 1 Fr 8.

1 Fr 9 and 1 Fr 10 - Located near the confluence of Lick Creek and Burr Branch, 1 Fr 9 is situated at the base of a ridge. The legal location is Township 7 South, Range 13 West, the northeast quarter of the northwest quarter of Section 3. 1 Fr 9 is not situated on the lower terrace along Lick Creek as 1 Fr 10 is, but rather on the terrace above which is about three feet higher. Cultural material is not visible on the surface of either site, but artifacts were located through test pitting. This makes the determination of size and significance of the sites difficult, but the evidence from the test pit investigation indicated that 1 Fr 9 may be salvageable. Artifacts consisted of biface knife fragments, choppers, one triangular biface knife, and lithic debris. The material suggests an Archaic component. The use of controlled test trenching is necessary to evaluate the exact impact of the highway project on the site. 1 Fr 10 is probably an extension of 1 Fr 9, but is smaller and appears less significant.

1 Fr 11 - This is a small Late Archaic site located on the east bank of Cedar Creek in the northwest quarter of the southeast quarter of Section 32, Township 6 South, Range 12 West. Artifacts were sparsely scattered due to extensive cultivation. The small amount of widely scattered material suggests that the site has either been almost totally destroyed due to cultivation and erosion, or that it served only as a small, occasionally used camp site. 1 Fr 11 does not warrant excavation or further testing.

### Conclusions and Recommendations

The "Historical Background" section of this report notes numerous early architectural sites near the highway project boundary. Three of these Alabama Inventory sites are within or just outside of the right-of-way of the highway project and should not be destroyed. They are the Bob Jones and Garrison Ezzell Homes in Dempsey, and the Dempsey Home in Red Bay. All three are shown on the maps on Pages 10 and 15 of this report. Although the actual road bed and right-of-way may miss these structures by a few feet, other construction activities should be planned to avoid damage to the houses. Three other structures should be mentioned here although they are even further off the proposed right-of-way. They are the Belgreen Methodist Church and cemetery, the Old Sandlin Place in Belgreen, and Jordan's Mill. The present structure at Jordan's Mill was built in the 1960's after the original one burned. Although the building itself has no historic significance, the mill continues to operate and is a rare example of an almost forgotten Alabama livelihood. If it is determined that any of these structures mentioned above will be destroyed or damaged, then plans should be made to move the structures out of the right-of-way or remove them to a historical park such as the one in the planning stages in the City of Russellville. The Alabama Historical Commission can advise the Alabama Highway Department as to locations where such historic structures are wanted.

Of the eight archaeological sites to be affected by the highway project, four do not warrant further investigations. These are 1 Fr 6, 1 Fr 8, 1 Fr 10, and 1 Fr 11. 1 Fr 4 and 1 Fr 5 have been investigated by the University of Alabama and are not recommended for further investigations. These two sites should be carefully observed for subsurface features during the period of construction by a trained archaeologist. 1 Fr 7 and 1 Fr 9 need further investigation through the use of systematic test trenches and squares. This work should not take more than a month at a cost of approximately \$3800.00. In addition, 1 Fr 7 and 1 Fr 9 should be observed by an archaeologist the day these sites are initially graded off.

If subsurface features are discovered on 1 Fr 4, 1 Fr 5, 1 Fr 7, and 1 Fr 9, work can be executed quickly in order to map the features and excavate them so that construction would not be held up.

The Alabama Historical Commission concurs with the construction plans in all other areas of the proposed project, APD 355(4). Assistance concerning the recommendations of this report will be furnished to the State of Alabama Highway Department upon request.

## REFERENCES

- DeLeon, Mark F.  
1975 "Archaeological Highway Salvage Investigations:  
Project BSR-3009(104), Franklin County, Alabama."  
Department of Anthropology, University, Alabama.
- Files and Documents.  
1976 Alabama Historical Commission, Montgomery, Alabama.
- Fundaburk, Emma Lila and Mary Douglass Foreman.  
1957 Sun Circles and Human Hands. Paragon Press,  
Montgomery, Alabama.
- Johnston, William Drumm, Jr.  
1930 Physical Divisions of Northern Alabama. Geological  
Survey of Alabama, Bulletin No. 38, University,  
Alabama.
- Lineback, Neal G.  
1973 Atlas of Alabama. The University of Alabama Press,  
University, Alabama.
- National Register of Alabama.  
1976 Alabama Historical Commission, Montgomery, Alabama.
- Nielsen, Jerry J.  
1971 "Archaeological Investigations in the Bear Creek  
Watershed." Unpublished manuscript submitted by the  
University of Alabama to the National Park Service.
- Oakley, Carey B. and Eugene M. Futato.  
1975 Archaeological Investigations In the Little Bear  
Creek Reservoir. Research Series No. 1, Office of  
Archaeological Research, University, Alabama.
- Richardson, Jesse M.  
1965 Alabama Encyclopedia. The American Southern Publishing  
Company, Northport, Alabama.
- Statewide Plan of Historic Preservation.  
1976 Alabama Inventory, Volume II, Franklin County,  
Alabama Historical Commission, Montgomery, Alabama.



W WARNER FLOYD  
EXECUTIVE DIRECTOR

STATE OF ALABAMA  
ALABAMA HISTORICAL COMMISSION

725 MONROE STREET  
MONTGOMERY, ALABAMA 36104



TELEPHONE NUMBER  
832-6621

November 9, 1976

Environmental Section  
HIGHWAY DEPARTMENT

Mr. Paul G. Stough  
State of Alabama Highway Department  
Environmental Review Section  
Montgomery, Alabama 36104

Re: An Amendment to the Recommendation for the State of  
Alabama Highway Department Project APD 355 (4) In  
Franklin County, Alabama

Dear Paul:

The following is an amendment to the recommendation set forth in the survey report entitled "An Intensive Archaeological and Historical Survey of the State of Alabama Highway Department Project APD 355(4) In Franklin County, Alabama," October 25, 1976. This amendment is a result of a meeting between you and archaeologist, Mack Broom, on November 8, 1976. On this date, Alabama Highway Department maps showing the location of the project right-of-way boundaries were studied in order to determine the exact cultural resources which would be destroyed by the project. Historic structures in the project boundaries include the Bob Jones and Garrison Ezzell Homes in Dempsey, the Dempsey Home in Red Bay, and the Old Sandlin Place in Belgreen. If it is satisfactory with the property owners, the State of Alabama Highway Department should move their structures to nearby safe areas. If the property owners do not wish to preserve their structures, the Highway Department should present the Alabama Historical Commission the opportunity to relocate the structures to a historic park or other place of safety.

Four prehistoric sites warrant further investigation. 1Fr9, near Lick Creek, should be tested prior to road construction. The site is not visible on the surface and can only be properly evaluated by a systemic test trench investigation.

1Fr4, 5, and 7 also warrant investigations. These three sites are all within the floodplain of Bear Creek. 1Fr4 and 5 have previously been investigated by the University of Alabama. 1Fr7 is large but badly eroded site with no evidence of undisturbed strata. Although cultivation and erosion have destroyed the occupational levels of these three sites, storage pits, fire hearths, and burials may still remain undisturbed beneath the surface. Therefore, it is recommended that the plan zone extending along the project area from Bear Creek to 1Fr5 be removed in thin layers with machinery under an archaeologist's supervision. If subsurface features are exposed, the archaeo-

Page 2

logist can proceed to map and excavate them without extreme delay. For economically practical reasons, this work can be conducted at the time construction in the vicinity of the sites has begun and a road grader is available.

Sincerely,



W. Warner Floyd

WWF/pjs

cc: Mack Brooms



STATE OF ALABAMA  
ALABAMA HISTORICAL COMMISSION

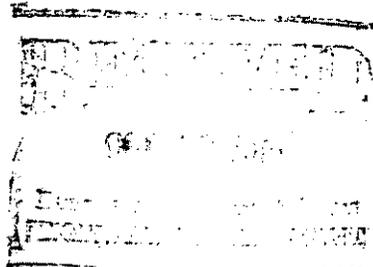


725 MONROE STREET

MONTGOMERY, ALABAMA 36104

October 27, 1978

TELEPHONE NUMBER  
832-6621



Mr. J. F. Freeman, Engineer  
Bureau of Surveys and Plans  
State Highway Department  
State Highway Building  
Montgomery, Alabama 36130

355

RE: Project APD-335  
Franklin County

Dear Mr. Freeman:

Based on the report submitted by Bascom Mack Brooms covering the above referenced project, it is the opinion of the state historic preservation officer that the development of this project will not effect any cultural resources listed or eligible for the National Register of Historic Places.

Sincerely,

Milo B. Howard, Jr.  
State Historic Preservation Officer

MBH/jeb/gmt

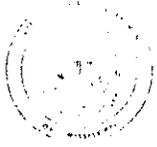
Attachment.

SECTION	YES	NO
GENERAL		
POWELL	BP	
AIR		
BIOLOGICAL		
HISTORICAL		
LAND USE		
TOURS		
PERMITS		
PUB. INVOL.		
ALL BASKETS		

RECEIVED  
OCT 30 1978  
Environmental Section  
HIGHWAY DEPARTMENT

**MISSISSIPPI STATE HIGHWAY DEPARTMENT**  
**FIRST DISTRICT**

*sh*  
*gac*  
*DUV*



L. G. Summerford  
District Engineer

P. O. Box 170  
Tupelo, Mississippi 38801

February 8, 1977

*Copy - Jack  
- Pipes -*

Mr. J. F. Freeman, Engineer  
Bureau of Surveys and Plans  
State of Alabama Highway Department  
Montgomery, Alabama 36130

Dear Mr. Freeman:

Re: APD Highway Location  
Mississippi-Alabama State Line

Reference is made to copy of Mr. Jack F. Caraway's memorandum to the files dated January 25, 1977, wherein he reported on the meeting of personnel of the Alabama and Mississippi Highway Departments held on January 18, 1977, to discuss the referenced subject.

Please be advised that this office concurs in the report and can satisfactorily connect to either the "red" or "blue" line as shown on the map depending upon the line you select to best accomplish Alabama's objective immediately east of the State line.

This will be our tentative approval of the general State line crossing point as outlined pending clearance of additional formal studies and public hearing requirements.

Sincerely

*J. L. Palmer*  
J. L. Palmer  
Dist. Const. Engineer

JLP/jwl

cc: Asst. Chief Engr. - Planning & Design  
(Attachment)

Mr. L. G. Summerford



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

1421 PEACHTREE ST., N. E.  
ATLANTA, GEORGIA 30309

September 15, 1976

Mr. J. F. Freeman  
Bureau of Surveys and Plans  
Alabama State Highway Department  
Montgomery, Alabama 36104

Dear Mr. Freeman:

We have reviewed the Advance Information on Project APC-355(4) in Franklin County, Alabama, and do not believe it will cause any major problems. However, we note at least one stream crossing on the map, and the Corps of Engineers should be contacted as to possible 404 permit requirements. The route will have the usual erosion control problems and measures outlined in the U. S. Department of Transportation's Transmittals 67 and 75 should be used.

In addition, noise abatement procedures for use during land clearing and construction phases of the project should be specified, and noise generated should not be in violation of any municipal or State noise regulation.

If we can be of further assistance in any way, please let us know.

Sincerely yours,

*John E. Hagan III*  
John E. Hagan, III  
Chief, EIS Branch

*Copy to [unclear] ✓*



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Post Office Box 837  
Decatur, Alabama 35602

June 25, 1976

RECORDED  
JUN 28 1976  
Bureau of Survey & Plans  
HIGHWAY DEPARTMENT  
RECEIVED  
Bureau of Survey & Plans  
AND PLANS  
LOCATION

Mr. J. F. Freeman  
Bureau of Survey and Plans  
Alabama Highway Department  
Montgomery, Alabama

Dear Mr. Freeman:

In accordance with the "Interagency Working Agreement" we are responding to two requests for statements on projects that could involve Section 10 and/or 404 permits. These letters were addressed to the Regional Director, Fish and Wildlife Service and are listed as follows:

1. Letter 6/22/76 - Project No. APD-235(27) corridor from east end of 4-lane on Scottsboro By-pass to US-72, Jackson County, Alabama
2. Letter 6/23/76 - Project No. APD-355(4) improvement on Alabama State Route 24 - Franklin County, Alabama

A cursory review of your map coverage and project description does not indicate that that the Service will offer serious objections at the permit stage. Hopefully, our funding and manpower will allow an on-site investigation at that time if your final plans show this to be necessary. It should be pointed out that we are highly interested in the corridor of which Project No. APD-235(27) is assumed to be a part. Specifically, we refer to the crossing of Mud Creek in this area. Our interests on all projects, however, are directed toward the impacts on wetlands and associated fish and wildlife resources. We hold the position that precautions should be taken to prevent the destruction or degradation of wetland areas. To this end, we often recommend (1) that bridge lengths be increased (2) that pilings be used in lieu of solid fill causeways (3) that alteration of stream channels be avoided and (4) that measures be included to reduce siltation. We also suggest that fisherman use may be enhanced by providing access where feasible.

If a permit is required, high priority will be given to the recognition and protection of any endangered species.

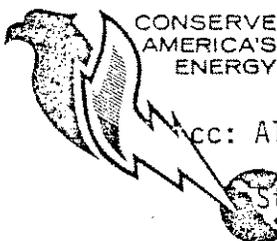
We appreciate the opportunity to provide comments on these projects.

Sincerely yours,

*John M. Hester*

JOHN M. HESTER  
Field Supervisor

Copies To: Div.  
Location  
E.T.s.



cc: Ala. Dept. of Cons. &  
Nat. Resources  
State Supervisor, Miss. St. University, Miss.  
Save Energy and You Save America!



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
 REGION IV  
 50 7TH STREET N.E.  
 ATLANTA, GEORGIA 30323  
 August 9, 1976

15 AUG 10 1976

AUG 10 1976

Bureau of Survey and Plans  
 HIGHWAY DEPARTMENT

*Jm*  
*JTC*

OFFICE OF THE  
 REGIONAL DIRECTOR

*J. Freeman*  
 10/10

J.F. Freeman, Engineer  
 Bureau of Survey and Plans  
 State of Alabama  
 Highway Department  
 Montgomery, Alabama 36104

Subject: Project APD-355(4) Franklin County  
 A Portion of the Appalachian Development Highway  
 System from the Alabama-Mississippi State Line  
 to a Point on Existing Alabama State Route 24  
 in East Red Bay

Dear Mr. Freeman:

We have received your letter of July 30, 1976 with attachment. The preliminary data submitted has been reviewed and we find that it does not address this Department's responsibilities. Information on community facilities, services, and economics are vitally necessary for a proper evaluation. Some of these items are schools, health, welfare, relocation of persons, fire departments, police departments, minorities, etc. If the project does not impact these items, a statement to this effect will expedite this office's review.

We appreciate the opportunity to review this preliminary statement.

Sincerely yours,

*Philip F. Sayre*  
 Philip F. Sayre  
 Regional Environmental Officer  
 DHEW - Region IV



TENNESSEE VALLEY AUTHORITY  
KNOXVILLE, TENNESSEE 37902

RECEIVED

AUG 19 1976

Bureau of Surveys & Plans  
HIGHWAY DEPARTMENT

8/19/76  
Jach  
APD 355(4)  
LOCATION

August 17, 1976

Mr. J. F. Freeman  
Bureau of Surveys and Plans  
Alabama Highway Department  
Montgomery, Alabama 36104

Dear Mr. Freeman:

PROJECT NO. APD-355(4) - FRANKLIN COUNTY

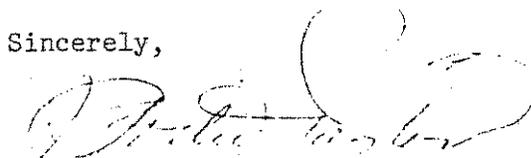
This responds to your June 23 letter requesting TVA's comments on the proposed project.

On the enclosed maps we have indicated the location of existing transmission lines that could be affected by this project.

In order to pass flood flows on Bear Creek with less than one foot of heading-up, an opening of 2,600 square feet below elevation 523.5 for the 50-year flow or 3,000 square feet below elevation 523.6 for the 100-year flow will be required. On Little Bear Creek an opening of 620 square feet below elevation 545.2 for the 50-year flow or 720 square feet below elevation 546.2 for the 100-year flow will be required to pass flood flows with less than one foot of heading-up. Minimum vertical clearance should be at least 3 feet above the design flood you select.

Based on the information furnished, we believe that this highway project will have no significant environmental impacts related to TVA program interests. Please submit final plans for the bridges for approval pursuant to Section 26a of the TVA Act.

Sincerely,

  
J. Porter Taylor, Director  
Division of Property and Services

Enclosures

Copies To Div  
Location

An Equal Opportunity Employer



DEPARTMENT OF THE ARMY  
 NASHVILLE DISTRICT, CORPS OF ENGINEERS  
 P. O. BOX 1070  
 NASHVILLE, TENNESSEE 37202

RECEIVED  
 SEP 20 1976  
 Bureau of Surveys & Plans  
 HIGHWAY DEPARTMENT  
 SEP 20 1976

IN REPLY REFER TO

ORNOP-F

15 September 1976 BUREAU OF SURVEYS  
 AND PLANS  
 LOCATION

*W*  
*Q7C*

State of Alabama Highway  
 Department  
 ATTN: Mr. J. F. Freeman  
 Bureau of Surveys and Plans  
 Montgomery, Alabama 36104

Gentlemen:

Reference is made to your 23 June 1976 letter with accompanying location maps concerning Project APD-355(4), a proposal to improve State Route 24 from the Mississippi state line to approximately three miles east of Belgreen in Franklin County, Alabama.

We have reviewed the designated section of the proposed corridor as shown on the above-mentioned maps pursuant to Section 404 of the Federal Water Pollution Control Act Amendments of 1972. Our review has revealed that the proposed corridor will cross several small streams above their headwaters (5 cfs) which is the upstream limit of Corps jurisdiction to regulate dredge and fill activities. Consequently, a Department of the Army Permit will not be required.

We appreciate the opportunity to comment. If we may be of further assistance, please advise.

Sincerely yours,

*Howard Boatman*

HOWARD BOATMAN  
 Chief, Operations Division

Copies To: Div.  
 Location  
 E.T.S.



DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

SOUTHERN REGION  
P. O. BOX 20636  
ATLANTA, GEORGIA 30320



August 9, 1976

Mr. J. F. Freeman, Engineer  
Bureau of Surveys and Plans  
State of Alabama  
Highway Department  
Montgomery, Alabama 36104

*Jack*  
*JFK*  
AUG 10 1976

Dear Mr. Freeman:

We have reviewed the following location maps with respect to potential environmental impact for which this agency has expertise:

- |   |   |
|---|---|
| Project APD-355(4) Franklin County                    | A Portion of the Appalachian Development Highway System from the Alabama-Mississippi State Line to a Point on Existing Alabama State Route 24 in East Red Bay |
| Project APD-235(27) Scottsboro Bypass, Jackson County | Segment begins approximately 0.25 mile northeast of Alabama State Route 35 and ends near U. S. Highway 72   |

Our review indicates there will be no significant adverse effects to the existing or planned air transportation system as a result of these projects.

Sincerely,

*Benny C. Frazier*  
BENNY C. FRAZIER  
Chief, Planning and Appraisal Staff

To: [unclear]  
[unclear]  
[unclear]

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

RECEIVED BY [unclear]

AUG 12 1976

64 North Union Street - Montgomery, Alabama 36104

Bureau of Surveys & Plans  
HIGHWAY DEPARTMENT

August 10, 1976

DIVISION OF GAME and FISH  
CHARLES D. KELLEY  
DIRECTOR  
ARCHIE D. HOOPER  
ASSISTANT DIRECTOR  
AUG 13 1976

GEORGE C. WALLACE  
GOVERNOR  
CLAUDE D. KELLEY  
COMMISSIONER  
SIDNEY BLEDSOE  
ASSISTANT COMMISSIONER

*Jack-*

DEPARTMENT OF SURVEYS  
AND PLANS  
MONTGOMERY

Mr. J. F. Freeman, Engineer  
Bureau of Surveys and Plans  
Alabama Highway Department  
Montgomery, Alabama 36130

Dear Mr. Freeman:

Our Department is in receipt of your correspondence of recent date concerning proposed project APD-355 (4) in Franklin County Alabama.

We have no comments to offer on the location within the proposed corridor at this time.

Sincerely,

*Ralph H. Allen, Jr.*

Ralph H. Allen, Jr., Coordinator  
Committee on Road Construction

RHA:lab

*Copies to: [unclear]*



W WARNER FLOYD  
EXECUTIVE DIRECTOR

STATE OF ALABAMA  
ALABAMA HISTORICAL COMMISSION

725 MONROE STREET  
MONTGOMERY, ALABAMA 36104



TELEPHONE NUMBER  
832-6621

August 3, 1976

Division of  
Highway Planning

*Paul -*

Mr. J. F. Freeman, Engineer  
Bureau of Surveys and Plans  
Alabama Highway Department  
Montgomery, Alabama 36130

Re: Project APD-355(4)  
Franklin County

Dear Mr. Freeman:

In accordance with Public Laws 89-665, 91-190, 93-291, and Executive Order 11593, the Alabama Historical Commission recommends a cultural resources assessment of all unimproved lands to be acquired for use in the construction project.

The assessment should be conducted by a professionally-trained archaeologist and a copy of the final report submitted to this office for our review and comments prior to any surface disturbance activities.

Sincerely,

*W. Warner Floyd*  
W. Warner Floyd

GCB

Copies To: Div.  
L... ✓  
E... B



STATE OF ALABAMA  
 OFFICE OF HIGHWAY & TRAFFIC SAFETY  
 GOVERNORS PARK OFFICE BUILDING  
 2600 E. SOUTH BLVD., SUITE 100  
 MONTGOMERY 36111

GEORGE C. WALLACE  
 GOVERNOR

RECEIVED

AUG 3 1976

Bureau of Surveys & Plans  
 HIGHWAY DEPARTMENT

*Jack*

AUG 3 1976

JESSE B. LEWIS  
 GOVERNOR'S COORDINATOR  
 EDUCATION

August 2, 1976

Mr. J. F. Freeman, Engineer  
 Bureau of Surveys and Plans  
 Highway Department  
 Montgomery, AL 36130

Re: Project APD-335 (4) Franklin  
 County A Portion of the Appalachian  
 Development Highway System from the  
 Alabama-Mississippi State Line to a  
 Point on Existing Alabama State Route  
 24 in East Red Bay.

Dear Mr. Freeman:

This office is not aware of any social, economic or environmental  
 factors which would effect the feasibility of the referenced project.

Please advise if we can be of further assistance.

Sincerely,

*James F. Quinn*

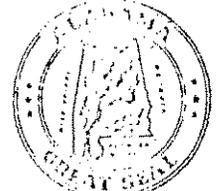
James F. Quinn  
 Grants Administrator

JFQ:mr

*Copies To: [unclear]  
 [unclear]*



State of Alabama  
Department of Education  
State Office Building  
Montgomery, Alabama 36130



Wayne Teague  
State Superintendent of Education

RECEIVED  
August 16, 1976

DEPARTMENT OF SUBMERGEE  
AND DREDGING  
OPERATIONS

Mr. J. F. Freeman, Engineer  
Bureau of Surveys and Plans  
State of Alabama Highway Department  
Montgomery, Alabama 36130

RE: Project APD-355(4) Franklin County  
A Portion of the Appalachian Development  
Highway System from the Alabama-Mississippi  
State Line to a Point on Existing Alabama  
State Route 24 in East Red Bay

Dear Mr. Freeman:

This will acknowledge receipt of your letter of July 30, 1976, in regard to Project APD-355(4), Franklin County, a portion of the Appalachian Development Highway System from the Alabama-Mississippi State Line to a point on existing Alabama State Route 24 in East Red Bay.

We have discussed the above project with Mr. Norman Loper and Mr. Freeman Johnson, our staff members assigned to your committee. It is our opinion that the proposed project would improve the transportation in this area of Franklin County.

Permit us to express our appreciation to you and the Highway Department for giving us this opportunity to work with you on these highway projects.

Sincerely yours,

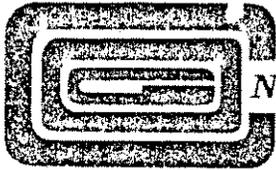
*Wayne Teague*  
Wayne Teague

State Superintendent of Education

WT/lcw

cc: Mr. Norman Loper  
Mr. Freeman Johnson

Copies To: Div.  
Location  
E.T.S.



P.O. BOX 1003, MERCEDES, ALABAMA 36621

Northwest Alabama Council of Local Governments

205 383-3861

RECEIVED

AUG 6 1976

Bureau of Surveys & Plans  
HIGHWAY DEPARTMENT

AUG 6 1976

BUREAU OF SURVEYS  
AND PLANS  
HIGHWAY DEPARTMENT

Jack She  
476

August 5, 1976

Mr. J. F. Freeman  
Engineer  
Bureau of Surveys and Plans  
State of Alabama Highway Department  
Montgomery, Alabama

RE: Projects BRS-3009(104) and APD-355(4) Alabama #24 Franklin County

Dear Sir,

Please refer to your letters dated July 30, 1976 on the above two projects.

We have reviewed the information provided and have no adverse comments for either project as they pertain to social, economic or environmental aspects.

Thank you for allowing us to review these proposals.

Sincerely Yours,

*Richard A. Smallwood*

Richard A. Smallwood  
Transportation Planner

RAS:lc

Copies To: [unclear]  
[unclear]  
E.T.S.

W. W. WEATHERFORD

JUDGE OF PROBATE  
FRANKLIN COUNTY

RUSSELLVILLE, ALABAMA 35653

MRS. RUTH OSBORNE  
CHIEF CLERK

RECEIVED  
SEP 13 1976  
BUREAU OF SURVEYS AND PLANS  
HIGHWAY DEPARTMENT  
JACK  
JHC

August 26, 1976

Mr. J. F. Freeman  
Engineer, Bureau of Surveys and Plans  
State of Alabama  
Highway Department  
Montgomery, Alabama 36104

Re: Project APD-355(4) Franklin County  
A Portion of the Appalachian  
Development Highway System from  
the Alabama-Mississippi State  
Line to a Point on Existing  
Alabama State Route 24 in  
East Red Bay

Dear Mr. Freeman:

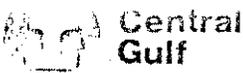
The Franklin County Board of Commission is in receipt of your letter of July 30, 1976, concerning the above described project. The Board has considered the plans which you have submitted for the construction of Highway 24. The Board wants to go on record as being wholeheartedly in favor of this project and hopes that the Highway Department will move with speed in completing it. We certainly have no objection to the route that you have outlined or any other route that the Highway Department and the Federal Highway Administration might feel would be the best route to take.

I want to congratulate you and the other members of the Highway Department for recognizing the need for this road.

Sincerely,

*W. W. Weatherford*  
W. W. Weatherford  
Judge of Probate  
Franklin County

Copies To: [unclear]  
[unclear]  
[unclear]



An IC Industries Company

RECEIVED  
SEP 3 1976

Bureau of Surveys & Plans  
HIGHWAY DEPARTMENT

Illinois Central  
Gulf Railroad  
Two Illinois Center  
233 North Michigan Avenue  
Chicago, IL 60601  
(312) 565 1600

September 1, 1976

O 98-23

RECEIVED

SEP 3 1976  
BUREAU OF SURVEYS & PLANS  
AND PLANS  
LOCATION

Mr. J. F. Freeman  
Engineer  
Bureau of Surveys & Plans  
Alabama Highway Department  
Montgomery, AL 36104

Dear Mr. Freeman:

SUBJECT: ROUTE FOR HIGHWAY SYSTEM - RED BAY, ALABAMA

Reference is made to your letter dated July 30, 1976 forwarding the preliminary information concerning the proposed route for the Appalachian Development Highway System south of Red Bay, Alabama.

Although the Illinois Central Gulf is not in a position to comment extensively upon the social or environmental effects of the proposal we wish to offer assistance to the Alabama Highway Department in developing any grade separation structure that may cross our facilities.

*of receive  
7/6/76*

Attached for your future reference is a copy of our standard requirements for overhead highway bridge construction. Ordinarily from a construction and economic standpoint we prefer an overhead bridge to a subway carrying railroad traffic over the highway. We normally desire that the design of any subway be done by our own staff or one of our consultant engineers familiar with railroad design.

When the proposal has been progressed sufficiently to the stage of developing the railroad structure we will be pleased to lend our assistance.

Very truly yours,

*R. E. Skinner*  
R. E. Skinner  
Engineer-Public Works

*Location*

LK

United States Department of the Interior



FISH AND WILDLIFE SERVICE  
P. O. Drawer 1190  
Daphne, Alabama 36526

IN REPLY REFER TO:

01-0709a

March 20, 2001

Mr. Joe D. Wilkerson  
Federal Highway Administration  
500 Eastern Boulevard, Suite 200  
Montgomery, Alabama 36117

Dear Mr. Wilkerson:

In your letter, dated January 25, 2001, you provided the results of a survey we requested on the Red Bay Bypass, Project ADP-355(32), in Franklin County, Alabama. The following comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e), the Migratory Bird Treaty Act (16 U.S.C. 703, *et seq.*) and section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531-1543).

We accept the statements that no listed species occur in the project area. Therefore, no further endangered species consultation will be required for this portion of the project unless: 1) the identified action is subsequently modified in a manner that causes an effect on listed species or a designated Critical Habitat; 2) new information reveals the identified action may affect Federally protected species or designated Critical Habitat in a manner or to an extent not previously considered; or 3) a new species is listed or Critical Habitat is designated under the Endangered Species Act that may be affected by the identified action.

If you have any questions or need additional information, please contact Mr. Bert W. Steen at (334) 441-5181, ext. 38. Please refer to the reference number above.

Sincerely,

Larry E. Goldman  
Field Supervisor



PHONE: 334-441-5181

[www.fws.gov](http://www.fws.gov)

FAX: 334-441-6222

SHIPPING ADDRESS: 1208-B Main Street, Daphne, AL 36526