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# PINE BLUFF AREA TRANSPORTATION STUDY

## YEAR 2020 TRANSPORTATION PLAN

PREPARED BY:
SOUTHEAST ARKANSAS REGIONAL PLANNING COMMISSION
P.O. BOX 8398
PINE BLUFF, AR 71611

#### IN COOPERATION WITH:

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT,
U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION,
AND FEDERAL TRANSIT ADMINISTRATION

AND IN COMPLIANCE WITH:
"THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991"

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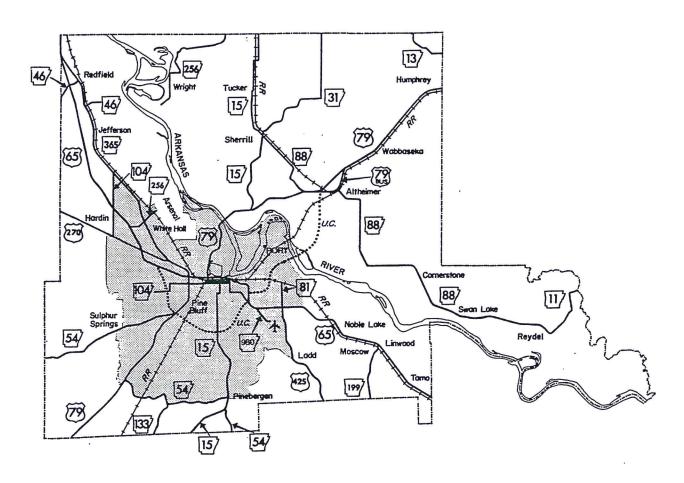
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# PINE BLUFF AREA TRANSPORTATION STUDY



## JEFFERSON COUNTY

**LEGEND** 





AN OVERVIEW
OF THE
TRANSPORTATION
PLANNING
PROCESS

#### INTRODUCTION

The Pine Bluff Area Transportation Study Area (PBATS) Program was initiated in 1964 in accordance with the Federal Highway Act of 1962. The intent of the program was to provide a network of transportation facilities capable of providing safe, convenient, effective, and efficient movement of goods and persons throughout the urbanized portion of Jefferson County. The Federal-Aid Highway Act of 1962 stated:

"After July 1, 1965, the Secretary shall not approve under Section 105 of this title any program for projects in any urban area of more than 50,000 population unless he finds that such projects are based on a continuing comprehensive transportation planning process carried on cooperatively by States and local communities in conformance with objectives stated in this section."

The original participants in the transportation planning process were the City of Pine Bluff, Jefferson County, Arkansas Highway and Transportation Department, and the Federal Highway Administration, and the original study culminated with the adoption of the recommended 1990 Transportation Plan in April, 1969.

Between 1964 and 1991, the Study Area was expanded to reflect the urbanization area of the Pine Bluff and White Hall area. New participants were included in the planning process in accordance with the expanded urban area and federal planning requirements. The new members were the City of White Hall, the Urban Mass Transportation Administration (now known as the Federal Transit Administration), and the Federal Aviation Administration. Also between 1969 and 1991, the Transportation Plan was updated from time to time to reflect social, economic, and environmental changes affecting the Study Area.

On December 19, 1991, the President signed the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). This reauthorization act is vastly different from the former transportation reauthorization acts. The program covers all forms of surface transportation and transportation-related interests: roads, bikeways, pedestrian movement, transit, rail, intermodal transportation and related issues, and pipeline transmission lines. The Act requires that each urbanized area shall be required to develop a transportation plan and programs that, at a minimum, address the following fifteen factors:

- 1. Preservation of existing transportation facilities and, where practical, ways to meet transportation needs by using existing transportation facilities more efficiently.
- 2. The consistency of transportation planning with applicable Federal, State, and local energy conservation programs, goals, and objectives.
- 3. The need to relieve congestion and prevent congestion from occurring where it does not yet occur.

- 4. The likely effect of transportation policy decisions on land use and development and the consistency of transportation plans and programs with the provisions of all applicable short and long-term land use and development plans.
- 5. The programming of expenditure on transportation enhancement activities as required in section 133.
- 6. The effects of all transportation projects to be undertaken within the metropolitan area, without regard to whether such projects are publicly funded.
- 7. International border crossings and access to ports, airports, intermodal transportation facilities, major freight distribution routes, national parks, recreation areas, monuments and historic sites, and military installations.
- 8. The need for connectivity of roads within the metropolitan area with roads outside the metropolitan area.
- 9. The transportation needs identified through use of the management systems required by section 303 of this title.
- 10. Preservation of rights-of-way for construction of future transportation projects, including identification of unused rights-of-way which may be needed for future transportation corridors and identification of those corridors for which action is most needed to prevent destruction or loss.
- 11. Methods to enhance the efficient movement of freight.
- 12. The use of life-cycle costs in the design and engineering of bridges, tunnels, or pavement.
- 13. The overall social, economic, energy, and environmental effects of transportation decisions.
- 14. Methods to expand and enhance transit services and to increase the use of such services.
- 15. Capital investments that would result in increased security in transit systems.

The document presented herein, the Year 2020 Transportation Plan of the Pine Bluff Urban Study Area, updates the existing transportation plan using current socio-economic and environmental data, surveillance inventory, and traffic statistics and volumes in conjunction with and with consideration given to the above fifteen factors. The Plan will be reviewed and updated at least every five years to meet the Study Area transportation needs.

#### GOALS AND POLICIES

The overall purpose of the transportation planning process is to develop a plan that can assist the units of government within the planning area in improving the quality of life for its citizens. The transportation plan provides a framework that the governmental units can use to improve public access to places of employment, shopping, education, recreation, social services, and other destinations throughout the study area. In the planning process it is also important to consider all aspects of the transportation system and all modes of travel. While the modes of transportation that service individual trips are certainly important and a major part of any transportation system, it is also important to consider the types of transportation that are used to deliver the goods and services required to support the quality of life we enjoy.

In developing any plan, the first step is to develop goals acceptable to the general public that lead to solving the problems perceived by the public. The four overall goals that the transportation planning process has been designed to meet are as follows:

- To develop a balanced, integrated, physically safe, energy efficient, and environmentally safe
  overall transportation system that includes all modes of transportation used to serve the public
  needs, including roads, automobiles, public transit, truck movements, bicycles, pedestrianways, waterways, railways, and pipelines.
- To develop a transportation system that contributes to the enhancement of desirable social, economic, and environmental qualities of the study area.
- To utilize the existing transportation facilities to the fullest extent possible to ensure that all
  opportunities to interconnect land uses and neighborhoods within the study area are available.
- To develop an intermodal transportation system at the least cost to the public that will
  maximize intermodal utilization where feasible and that will reduce conflict between these
  transportation modes.

#### STUDY ORGANIZATION

#### POLICY COMMITTEE

The Policy Committee has the general responsibility for directing and administering the preparation of the initial comprehensive study and for implementing the continuing planning process with assistance and advice from the Coordinating Committee and other technical subcommittees. The representatives for the State and Federal governments also advise the Coordinating Committee on State and Federal policies and regulations.

The Policy Committee's membership during 1994/1995 is as follows:

Representatives	Name and Title
Jefferson County	Jack Jones, County Judge (Chairman) Donnie Crossett, Quorum Court Member
Pine Bluff	Jerry Taylor, Mayor Levert Blunt, Alderman
White Hall	Raymond Ross, Mayor 1994 James Morgan, Mayor 1995 William May, Alderman
Southeast Arkansas Regional Planning Commission	Howard Parette
Arkansas Highway and Transportation Department	Bryan Davis, Chief, Planning Division 1994 Tom Harrell, Chief, Planning Division 1995 Jim Briley, District Engineer
Federal Transit Administration	Regional Chief
Federal Aviation Administration	Regional Chief
Federal Highway Administration	Regional Chief

Specifically, the Committee's responsibilities are:

- 1. Adopt a short-range transportation plan including priorities for improvement.
- 2. Maintain a work program for the continuing planning process.
- 3. Review estimated cost, work task, and funding as proposed.
- 4. Periodically review the cost of accomplishing the required work and recommend such changes as are necessary.

- 5. Review each major phase of the Study and direct the technical and/or coordinating committees as necessary.
- 6. Implement its plans by taking steps to obtain official acceptance of its proposals by the units of government involved and by the people of the area.
- 7. Meet as necessary to review all material pertaining to changing transportation needs in the area and to revise the plan as needed.
- 8. Support and cooperate with other planning agencies in areas of mutual interest such as updating and implementing comprehensive plans, zoning, subdivision design and controls, official maps and capital improvements programs.
- 9. Exercise all other functions necessary to implement the continuing transportation planning process in accordance with the Intermodal Surface Transportation Efficiency Act of 1991.
- 10. Administer federal urban transportation planning funds.
- 11. Establish technical committees composed of committee members and other technical personnel involved in transportation within the study area.

#### COORDINATING/TECHNICAL COMMITTEE

The general responsibility of the Coordinating/Technical Committee and its subcommittees is to assist the Policy Committee in carrying out the planning program by reviewing and preparing reports and recommendations. Responsibilities of the various subcommittees involved in the overall comprehensive transportation planning process include the analysis of existing and future conditions relating to economic development, population, land use, transportation facilities, travel patterns, land use and development codes, and social, environmental and community value factors. The Committee is also responsible for addressing the fifteen points required under the ISTEA Act of 1991 as stated on pages 2 and 3 of this document.

The Technical/Coordinating Committee's membership during 1994/1995 is as follows:

Representatives	Name and Title
Jefferson County	Jerry James, County Road Superintendent
Pine Bluff	Charles Warriner, Street Manager Russell Carnes, Transit Manager, 1994 Larry Reynolds, Transit Manager, 1995
White Hall	Raymond Ross, Mayor, 1994 James Morgan, Mayor, 1995
Arkansas Highway and Transportation Department	Max Bagwell, Assistant District Engineer Kim Kealer, Study Coordinator, 1994 Joe Nelson, Study Coordinator, 1995

Southeast Arkansas Regional Planning Commission

Pine Bluff Air Port Commission

Intermodal Representatives

Jeff Hawkins, Director Allan Skinner, Assistant Director Jerre George, Planner III

Mike West, Manager

Neil Stevens, Director, Jefferson County, 1995 Industrial Foundation/Chamber of Commerce

David Medley, Quality Intermodal Corporation

#### PUBLIC INVOLVEMENT

One of the essential elements in the transportation planning process is public involvement. In order to obtain public - i.e. citizens, other affected employee representatives, private providers of transportation, and other interested parties - input in planning and developing the Pine Bluff Urban Study Area Year 2020 Transportation Plan, the PBATS Policy Committee has adopted the following public participation process:

#### **OPEN HOUSE MEETING PROCESS**

- 1. PBATS will hold two open house meetings for the purpose of adopting a Year 2020 Transportation Plan.
  - The first open house meeting will be held for the purpose of soliciting public input concerning the development of the Year 2020 Transportation Plan and will be presented a plan prepared by the Technical Committee. The Technical Committee will address the comments received from the open house meeting and will then prepare a proposed Year 2020 Transportation Plan to be presented to the Policy Committee. The Policy Committee will review the proposed Year 2020 Transportation Plan and make any changes it deems necessary.
  - The second open house meeting will be held on the proposed Year 2020 Transportation plan as approved by the Policy Committee. After conducting the open house meeting, the Technical Committee will address any comments received, amend the proposed Plan if necessary, and submit the amended Plan to the Policy Committee for consideration. The Policy Committee will then adopt a Year 2020 Transportation Plan. Said Plan will then be referred to each local government for consideration of adoption as part of their respective master Street Plans.
- 2. An annual open house meeting will be held for the purpose of soliciting public input concerning the planning process, the 15 points PBATS is required to address in the process, and on the Plan itself. The Technical Committee will address the public's input received from the open house and prepare a report to submit to the Policy Committee. The Policy Committee will review the report and take appropriate action as deemed necessary to carry on the continuing planning process.

#### POST OPEN HOUSE MEETING

1. A public notice will be published prior to the open house stating that the public has a fifteen (15) day time period from the date of the open house to submit their written comments concerning the plan and/or planning process to the Coordinating/Technical and Policy Committee. All comments shall be addressed to SARPC.

- 2. The public will be informed that they have fifteen days after the open house to submit written comments concerning the plan and/or planning process.
- 3. The staff will prepare a document of the comments it receives as a result of the open house meeting and submit it to the Technical Committee.
- 4. The staff will prepare a document addressing the Technical Committee's comments which will be submitted to the Policy Committee for its review and action.

## TRANSPORTATION IMPROVEMENT PROGRAM PROCESS AND UNIFIED WORK PROGRAM

1. PBATS will publish two legal notices to solicit citizen involvement in developing the TIP.

#### **FIRST NOTICE**

- The first public notice will be published in April of each year in the local newspaper.
  - A description of the TIP, brief statement of purpose of TIP, statement of eligible type of projects, the jurisdictions involved of consisted projects from the public.
  - The public will be able to submit projects and/or comments in writing within a fifteen (15) day period. All responses shall be addressed to SARPC.
  - Projects and/or comments will be submitted to the Technical and Policy Committees for consideration in the process of developing the TIP.

#### SECOND NOTICE

- The public notice will be published prior to the adoption of the TIP.
  - A statement that the draft copy of the TIP has been prepared and is being considered for approval by the Technical and Policy Committees, and is available to public review and comments at the SARPC office, a brief statement of purpose of the TIP, and jurisdictions involved.
  - The public will be given a fifteen (15) day period to review and make comments to the Technical and Policy Committees. All comments shall be addressed to SARPC.

- 2. PBATS will publish a legal notice to solicit citizen involvement in developing the Unified Work Program prior to the adoption of the Unified Work Program. SARPC staff and AHTD will draft a proposed Unified Work Program for the upcoming fiscal year. This public notice is to solicit input concerning the draft Unified Work Program.
  - A statement that the draft Unified Work Program has been prepared and is being
    considered for adoption by the Technical and Policy Committee and is available for review
    and comment at the SARPC office, a brief statement of purpose of the Unified Work
    Program, and the jurisdictions involved.
  - The public will be given a fifteen (15) day period to review and make comments to the Technical and Policy Committee. All comments shall be addressed to SARPC.

## INVENTORIES AND FORECASTS

In order to assess the adequacy of the Transportation Plan for the Year 2020, it is necessary to maintain land use data, socio-economic data, and transportation system characteristics on a current basis, review and forecast the collected data, and compare and evaluate the existing conditions in relation to the forecasts made in developing the recommended plan. These activities are necessary to determine if the assumptions made during the initial study and subsequent plan updates are holding constant.

Such elements as dwelling units, population, employment, vehicle registration, traffic volumes, accident data and social and environmental concerns are monitored and reviewed annually in order to ascertain trends in residential, commercial, and industrial land use development and its consequential effect on the existing and forecasted transportation systems. The elements contained in this section along with explanatory summaries of each element are as follows:

Population: 1980 population, 1990 estimated population,\* and 2020 estimated population by Traffic Zone

• Employment: 1980 employment\* and 2020 estimated employment by Traffic Zone

• Vehicle Registration: 1984 - 1993

• Traffic Volumes: 1980 - 1990

<sup>\* 1990</sup> population by Traffic Zone is estimated and 1980 employment by Traffic Zone is used instead of 1990 because the 1990 U. S. Census Transportation Planning Package for Metropolitan Statistical Areas will not be available until 1995.

#### **POPULATION**

The Year 2020 population projection for Jefferson County was obtained by using the Arkansas Institute for Economic Advancement - University of Arkansas at Little Rock Category B Populations Projections for the years 1995 through 2010. The projected 2020 population was projected from 2010 by using a straight line percentage increase of 2.2%, the same percentage increase shown by the Institute for the years 2005 through 2010. Utilizing this method, the population of Jefferson County in the year 2020 will be 99,440. To determine the population of the Pine Bluff Area Transportation Study urban area in 2020, the Pine Bluff Land Use Plan and the Jefferson County Land Use Element were used to estimate the percentage of the County's projected population that will be residing in the Study Area. By the year 2020, 88.8% of Jefferson County's population will reside in the Study Area (88,303 persons). Table 1 shows by Traffic Zone the population of the Study Area for 1980, the estimated population in 1990, and the 2020 population estimate. Map 1, Traffic Zones, is presented on page 19.

TABLE 1
POPULATION BY TRAFFIC ZONE

			•
		1990	2020
	1980	<b>ESTIMATED</b>	<b>ESTIMATED</b>
TRAFFIC ZONE	<b>POPULATION</b>	<b>POPULATION</b>	<b>POPULATION</b>
01	638	656	699
02	30	30	42
03	203	203	368
04	421	424	529
05	865	930	1336
06	847	1156	814
07	563	563	560
08	732	732	1250
09	453	453	629
10	245	248	343
11	746	1860	947
12	648	678	912
13	952	1107	1267
14	179	207	236
15	832	851	527
16	1001	1012	910
17	210	212	314
18	1986	2128	1831
19	1711	1677	1178
20	660	613	349

TABLE 1, CONTINUED

		1990	2020
	1980	<b>ESTIMATED</b>	<b>ESTIMATED</b>
TRAFFIC ZONE	<b>POPULATION</b>	<b>POPULATION</b>	<b>POPULATION</b>
21	212	212	244
22	1117	1113	1275
23	1983	1885	1807
24	672	643	611
25	93	95	38
26	131	133	285
27	465	395	207
28	367	362	153
29	69	69	0
30	0	0	0
31	111	107	91
32	406	409	651
33	538	538	592
34	514	475	470
35	135	136	130
36	1087	1035	1068
37	198	191	198
38	1121	1094	1018
39	1703	1668	2270
40	908	919	1471
41	826	735	471
42	252	229	124
43	1291	1203	1195
44	509	477	514
45	1927	1874	1450
46	279	261	220
47	482	459	362
48	0	0	0
49	42	40	0
50	395	380	181
51	283	256	148
52	595	574	390
53	206	174	159
54	0	0	0
55	0	0	0
56	317	290	210
57	1147	1081	983
58	891	867	827

TABLE 1, CONTINUED

	1000	1990 ESTIMATED	2020 ESTIMATED
TRAFFIC ZONE	1980 POPULATION	POPULATION	POPULATION
IRAFFIC ZUNE	POPULATION	FORULATION	TOPOLATION
59	974	974	867
60	1043	1025	879
61	356	337	299
62	165	163	116
63	6	0	0
64	105	86	45
65	1313	1299	1221
66	595	580	650
67	370	368	289
68	172	163	206
69	716	660	680
70	732	730	677
71	1180	1180	1037
72	13	13	0
73	386	391	403
74	8	8	0
75	193	204	82
76	1476	1476	3087
77	1215	1245	2389
78	695	695	1343
79	1064	1074	1288
80	1460	1518	1345
81	810	786	851
82	2406	2387	2171
83	1949	1931	1714
84	1265	1233	1361
85	2015	1929	2047
86	508	483	786
87	491	522	895
88	882	833	973
89	1653	1655	1837
90	543	527	654
91	1062	1055	1260
92	560	566	594
93	2215	2252	2215
94	813	820	822
95	0	0	0
96	944	981	1170

TABLE 1, CONTINUED

		1990	2020
	1980	<b>ESTIMATED</b>	<b>ESTIMATED</b>
TRAFFIC ZONE	<b>POPULATION</b>	<b>POPULATION</b>	<b>POPULATION</b>
97	1783	1775	2200
98	117	132	289
99	217	217	175
100	237	237	138
101	92	92	234
102	148	160	1248
103	583	718	1312
104	52	52	105
105	0	0	. 0
106	108	116	855
107	272	274	871
108	1004	1400	3660
109	175	175	160
110	1462	1462	1828
111	969	969	1261
1593	197	197	390
1594	183	183	245
1595	159	159	298
1596	584	620	1729
1599	25	25	58
1579	63	63	61
1592	34	34	35
1587	43	34	44
TOTAL	76,054	77,362	88,303

#### **EMPLOYMENT**

The six sources of information used to determine the 1980 and projected 2020 employment for the Study Area and its distribution throughout the affected traffic zones are:

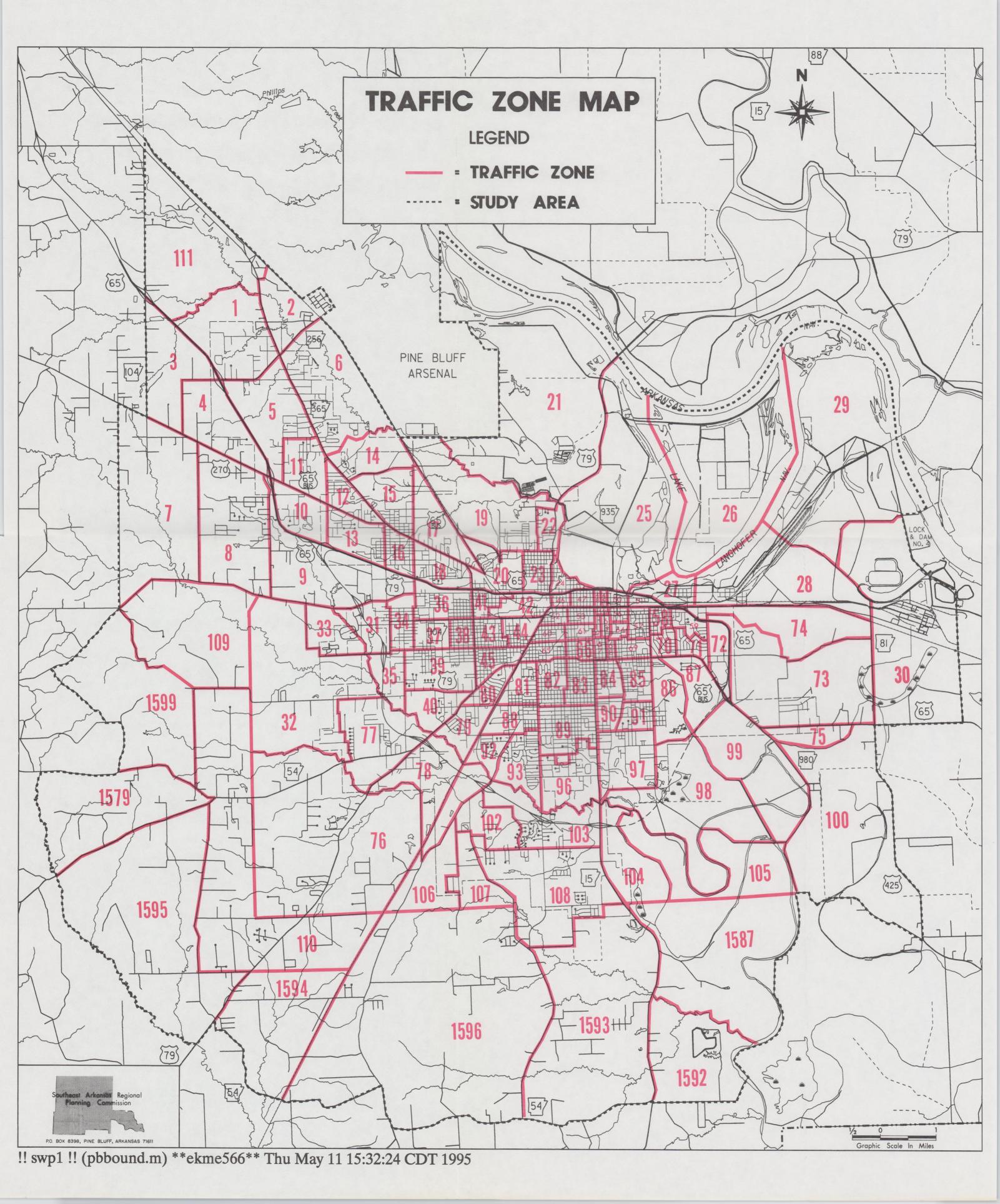
- 1980 Census Urban Transportation Planning package
- U.S. Census OBERS Projections for Employment Participation Ratios
- Population Projections for Jefferson County, Arkansas Institute for Economic Advancement, University of Arkansas at Little Rock
- Jefferson County Industrial Foundation
- Pine Bluff Land Use Plan and the Jefferson County Land Use Element
- Relative land use data and maps available through SARPC and the City of Pine Bluff

The year 2020 estimated employment figures were obtained by using U. S. Census OBERS projections for the employment participation ratio for Southeast Arkansas for the year 2010 and applying that rate to the year 2020 projected population. A review of the 1980 Census was made, and an adjustment was made to the participation ratio because Jefferson County is the employment center of Southeast Arkansas, and there are more persons commuting from outside the County into the County to work than there are persons commuting from inside the County to outside the County to work. It is estimated that employment for the Study Area in the year 2020 will be 39,910. Table 2 shows the 1980 employment and the year 2020 projected employment of the Study Area by Traffic Zone.

TABLE 2 EMPLOYMENT BY TRAFFIC ZONE

01 10 30 45 366 520 89 443 520 02 10 20 46 108 120 90 282 560 03 38 60 47 615 700 91 25 50 04 36 80 48 323 280 92 165 190 05 119 570 49 403 550 93 213 170 06 42 80 50 469 550 94 129 150 07 20 30 51 103 140 95 1117 1500 08 20 50 52 198 210 96 363 720 09 0 40 53 1158 1220 97 103 230 10 71 200 54 285 380 98 0 0 11 51 220 55 1229 1350 99 10 230 12 179 170 56 588 630 100 104 230 13 22 30 57 422 580 101 24 10 14 173 270 58 76 100 102 14 0 15 327 700 59 282 180 103 16 350 16 18 425 500 62 142 190 106 0 0 17 224 280 61 1043 650 105 0 0 18 425 500 62 142 190 106 0 0 19 136 675 63 1093 1130 107 0 0 20 200 210 64 442 660 108 20 650 21 338 425 65 132 135 109 0 0 20 200 210 64 442 660 108 20 650 21 338 425 65 132 135 109 0 0 22 985 1010 66 502 525 110 110 134 20 23 172 200 67 454 490 111 41 50 24 21 20 68 328 340 1579 2043 220 25 24 110 69 180 210 1587 14 20 26 5 10 70 230 280 1592 13 20 27 230 360 71 385 400 1594 0 0 28 328 600 72 124 1160 1595 0 0 31 100 250 75 58 20 0 32 170 20 88 328 340 1579 2043 2200 31 100 250 77 180 500 32 172 200 67 454 490 111 41 50 24 21 20 68 328 340 1579 2043 2200 27 230 360 71 385 400 1594 0 20 28 328 600 72 124 1160 1595 0 0 31 100 250 75 58 20 32 170 30 60 12 120 1587 14 20 25 24 110 69 180 210 1587 14 20 26 5 10 70 230 280 1592 13 20 27 230 360 71 385 400 1594 0 20 28 328 600 72 124 1160 1595 0 0 31 100 250 75 58 200 32 0 0 76 22 40 TOTAL 27,933 39,910 33 152 200 77 180 500 34 10 40 78 72 330 35 21 30 79 319 340 36 106 150 80 143 210 37 10 30 81 569 880 38 64 90 82 90 110 39 183 360 83 253 300 40 38 40 84 200 220 41 54 100 85 160 190 42 786 910 86 96 120 43 228 270 87 244 670 444 646 860 88 1253 1650	ZONE	1980	2020	ZONE	1980	2020	ZONE	1980	2020
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03         38         60         47         615         700         91         25         50           04         36         80         48         323         280         92         165         19           05         119         570         49         403         550         93         213         170           06         42         80         50         469         550         94         129         150           07         20         30         51         103         140         95         1117         1500           08         20         50         52         198         210         96         363         72           09         0         40         53         1158         1220         97         103         230           10         71         200         54         285         380         98         0         0           11         51         220         55         1229         1350         99         10         233           12         179         170         58         76         100         101         101         14         10									
04         36         80         48         323         280         92         165         190           05         119         570         49         403         550         93         213         170           06         42         80         50         469         550         94         129         150           07         20         30         51         103         140         95         1117         1500           08         20         50         52         198         210         96         363         720           09         0         40         53         1158         1220         97         103         230           10         71         200         55         1229         1350         99         10         230           11         51         220         55         1229         1350         99         10         230           12         179         170         56         588         630         100         104         230           13         22         30         57         422         580         101         24         10									
05         119         570         49         403         550         93         213         170           06         42         80         50         469         550         94         129         150           07         20         30         51         103         140         95         1117         1500           08         20         50         52         198         210         96         363         720           09         0         40         53         1158         1220         97         103         230           10         71         200         54         285         380         98         0         0           11         51         220         55         1229         1350         99         10         230           12         179         170         56         588         630         100         104         230           13         22         30         57         422         580         101         24         10           14         173         270         58         76         100         102         14         0									
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29       517       1560       73       39       250       1596       45       90         30       10       10       74       10       120       1599       0       0         31       100       250       75       58       200         32       0       0       76       22       40       TOTAL       27,933       39,910         33       152       200       77       180       500       500       34       10       40       78       72       330       39,910       33       35       21       30       79       319       340 </td <td></td> <td>230</td> <td>360</td> <td>71</td> <td>385</td> <td>400</td> <td>1594</td> <td>0</td> <td>20</td>		230	360	71	385	400	1594	0	20
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32     0     0     76     22     40     TOTAL     27,933     39,910       33     152     200     77     180     500       34     10     40     78     72     330       35     21     30     79     319     340       36     106     150     80     143     210       37     10     30     81     569     880       38     64     90     82     90     110       39     183     360     83     253     300       40     38     40     84     200     220       41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	30	10	10	74	10	120	1599	0	0
33     152     200     77     180     500       34     10     40     78     72     330       35     21     30     79     319     340       36     106     150     80     143     210       37     10     30     81     569     880       38     64     90     82     90     110       39     183     360     83     253     300       40     38     40     84     200     220       41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	31	100	250	75	58	200			
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35     21     30     79     319     340       36     106     150     80     143     210       37     10     30     81     569     880       38     64     90     82     90     110       39     183     360     83     253     300       40     38     40     84     200     220       41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	33	152	200	77	180	500			
36     106     150     80     143     210       37     10     30     81     569     880       38     64     90     82     90     110       39     183     360     83     253     300       40     38     40     84     200     220       41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	34	10	40	78	72	330			
37     10     30     81     569     880       38     64     90     82     90     110       39     183     360     83     253     300       40     38     40     84     200     220       41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	35	21	30	79	319	340			
38     64     90     82     90     110       39     183     360     83     253     300       40     38     40     84     200     220       41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	36	106	150	80	143	210			
39     183     360     83     253     300       40     38     40     84     200     220       41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	37	10	30	81	569	880			
40       38       40       84       200       220         41       54       100       85       160       190         42       786       910       86       96       120         43       228       270       87       244       670	38	64	90	82	90	110			
41     54     100     85     160     190       42     786     910     86     96     120       43     228     270     87     244     670	39	183	360	83	253	300			
42 786 910 86 96 120 43 228 270 87 244 670	40	38	40	84	200	220			
43 228 270 87 244 670	41	54							
	42	786	910						
44 646 860 88 1253 1650	43								
	44	646	860	88	1253	1650			

#### MAP 1. TRAFFIC ZONES



#### **VEHICLE REGISTRATION**

In 1984, there were 52,495 vehicles registered in Jefferson County; in 1993, there were 53,760 vehicles registered. This represents only a 2.4% increase over a ten year period. Automobile and other passenger cars represent the majority of vehicle types registered, almost 70% of the total. These two classifications have remained relatively constant over the years. The classification experiencing the most drastic change is motorcycle registration which decreased almost 70 percent.

It is estimated that over 85% of the vehicles registered belong to persons residing in the Study Area. These figures are estimated from totals provided by the State for Jefferson County. Current vehicle registration for the Study Area is approximately 10% higher than the original forecast for the time period, a change which has been considered in travel projections for the Year 2020.

Table 3 below lists motor vehicle registration by classification for the years 1984 through 1993.

TABLE 3
MOTOR VEHICLE REGISTRATION

#### **CLASSIFICATION**

YEAR	Automobile	Other Passenger Cars	Pickups	Other Trucks	Motorcycles	Other Motor Vehicles	Total Motor Vehicles
1984	35778	765	12597	1785	1385	185	52495
1985	36388	831	12993	1815	1425	186	53638
1986	37127	923	13554	1791	1082	185	54662
1987	37142	764	13788	1839	<b>75</b> 9	168	54460
1988	36347	771	13618	1742	560	184	53222
1989	36719	1002	14142	1880	485	204	54432
1990	36068	841	14200	1852	421	204	53586
1991	35895	1195	14276	1735	396	210	53707
1992	35931	1085	14213	1746	437	198	53610
1993	35843	1310	14295	1722	356	234	53760

#### TRAFFIC VOLUMES

Traffic volumes and the rate at which they are changing is extremely important to transportation planning, design, operating, and implementation. The traffic counts shown are currently made every three years in the Pine Bluff Study Area and are compared to forecasts. When significant changes are identified, recommendations are made to ensure the efficient flow of traffic.

#### KEY TO TABLE 4, TRAFFIC VOLUMES:

#### Average Daily Traffic (ADT):

The average total of daily volume during a year. ADT volumes are used for determining functionally classified street systems, selecting routes for new facilities, determining the priority of street improvements, etc.

#### Cordon Volume Counts:

Counts made to determine the number of vehicles entering or leaving the Study Area. A cordon line encircles the Study Area at which all vehicles entering and leaving the area are counted. Cordon count information is important for long range planning of arterials and expressways for through-traffic and monitoring of area-wide growth.

#### Screenline Volume Counts:

Counts made at crossings of natural or man-made barriers such as waterways, railroad tracks, expressways, and parks which divide the area. Screenline counts are used in evaluating computerized traffic forecasts and for detecting long-range changes in volume and direction of traffic caused by significant changes in land use and travel patterns.

ADT, cordon line, and screenline volumes are measured by the Arkansas Highway and Transportation Department for the Pine Bluff Area Transportation Study. Table 4 shows screenline and cordon counts per selected location on the classified locations system.

TABLE 4
TRAFFIC VOLUMES

LOCATION	1993	1990	1988
SH 15/Main Street, north of 2nd Avenue	3,530	3,690	3,430
SH 15/Main Street, north of 5th Avenue	4,230	4,700	4,140
SH 15/Main Street, north of Martin Avenue	11,110	13,080	11,700
SH 15/Harding Avenue, west of Chestnut Street	19,510	19,300	19,290
SH 15/Olive Street, north of 20th Avenue	19,640	19,370	22,550
SH 15/Olive Street, north of 26th Avenue	20,710	18,990	16,460
SH 15/Olive Street, north of 18th Avenue	20,490	22,220	20,100
SH 15/Olive Street, north of 31st Avenue	14,520	14,570	14,010
SH 15/Olive Street, south of Westridge Drive	8,070	7,820	7,180
SH 15, south of Main Street	8,380	7,280	6,730
SH 15, south of Ritchwood Drive	5,080	4,030	3,960
SH 54, east of Middle Warren Road	790	720	670
SH 54, west of Becky lane	310	350	330
SH 54, east of Oakwood Road	7,910	9,650	8,440
SH 54, east of Scenic Drive	5,680	5,620	5,030
SH 54, west of Temple Road	4,200	4,030	3,620
SH 81, north of U.S. Highway 270	4,120	5,250	3,330
SH 104, north of Besley Road	1,450	1,460	1,330
SH 104, north of Dan Road	950	1,010	740
SH 365, north of Gravel Pit Road	2,810	3,150	2,910
SH 365, north of Old Dollarway Road	3,770	4,010	3,200
SH 365, south of Roberts Street	9,700	10,490	9.560
SH 365, south of Piney Road	12,020	10,990	9,560
U.S. Hwy 270, east of Stokes road	6,710	5,840	6160
U.S. Hwy 270, east of Clark Road	7,650	7,930	7,040
U.S. Hwy 65B, west of Bryant Street	6,280	6,450	5,350
U.S. Hwy 65B, west of Gandy Avenue	5,400	5,120	4,330
U.S. Hwy 65B, north of Spears Street	16,390	17,400	16,590
U.S. Hwy 65B, east of School Street	22,000	18,930	18,670
U.S. Hwy 65B, north of Bay Street	17,780	21,620	17,830
U.S. Hwy 65B, north of U.S. Hwy 65	23,610	24,290	26,420
U.S. Hwy 65B/79 (Blake Street, south of 2nd Avenue)	23,170	24,380	25,470
U.S. Hwy 65B, east of U.S. Hwy 79 (Blake Street)	9,450	10,540	10,100
U.S. Hwy 65B, east of Fir Street	9,190	8,430	9,030
U.S. Hwy 65B/5th & 6th, west of Linden Street	17,040	17,500	16,280
U.S. Hwy 65B/5th & 6th, west of Beech Street	13,610	12,400	15,630
U.S. Hwy 65B/5th & 6th, west of Pine Street	11,770	12,590	11,440

TABLE 4. TRAFFIC VOLUMES, Continued	T		
LOCATION	1993	1990	1988
U.S. Hwy 65B/5th & 6th, east of Main Street	9,000	9,860	10,080
U.S. Hwy 65B/5th & 6th, west of Ohio Street	7,480	7,310	7,590
U.S. Hwy 65B/Ohio St., north of 7th Avenue	5,810	6,540	6,970
U.S. Hwy 65B/Ohio St., north of Harding Avenue	8,040	8,960	7,790
U.S. Hwy 65B/Harding Ave., west of Ohio Street	17,570	17,290	17,800
U.S. Hwy 65B/Harding Ave., west of Wisconsin Street	16,340	17,810	16,710
U.S. Hwy 65B/Harding Ave., east of Commerce Road	11,380	11,730	12,350
U.S. Hwy 65, north of Holland Street	15,210	12.790	9,920
U.S. Hwy 65, north of US 270	14,300	14,810	12,210
U.S. Hwy 65, east of Bryant Street	19,080	19,680	16,790
U.S. Hwy 65, east of Hutchinson Street	20,660	17,620	17,210
U.S. Hwy 65, east of Blake Street	25,040	23,960	26,840
U.S. Hwy 65, east of Larch Street	24,690	23,850	26,450
U.S. Hwy 65, west of Cherry Street	22,780	21,340	21,840
U.S. Hwy 65, west of Walnut	23,000	21,770	22,200
U.S. Hwy 65, west of Convention Center Drive	21,540	19,260	17,250
U.S. Hwy 65, west of East 2nd Avenue	17,050	18,630	15,490
U.S. Hwy 65, west of Michigan Street	15,220	12,630	14,950
U.S. Hwy 65, west of Commerce Road	14,510	13,780	13,510
U.S. Hwy 65, south of Market Street	11,000	10,860	10,490
U.S. Hwy 65, north of Pines Mall Drive	11,380	11,730	12,350
U.S. Hwy 65, east of Green Meadows	15,100	15,010	14,090
U.S. Hwy 79, north of 13th Avenue	23,500	24,100	22,900
U.S. Hwy 79, south of Bay Street	13,820	15,040	14,840
U.S. Hwy 79, north of 28th Avenue	12,770	14,120	11,690
U.S. Hwy 79, south of Union Avenue	13,940	11,920	14,460
U.S. Hwy 79, north of Dairy Road	4,080	3,790	3,780
U.S. Hwy 79, north of Big Creek	3,110	2,610	1,850
U.S. Hwy 79, south of the Arkansas River	6,730	5,770	5,570
U.S. Hwy 79, north of Oliver Drive	8,180	7,310	8,600
U.S. Hwy 79, north of Fluker Street	16,190	14,340	15,400
U.S. Hwy 79, north of U.S. Hwy 65	12,770	14,830	14,940
U.S. Hwy 425, north of East Pointer Road	4,610	4,200	3,540
Barraque Street, east of Bay Street	6,300	8,300	8,800
Bryant Street, south of Sunset Road	3,780	3,400	2,980
Bryant Street, south of Princeton Pike	4,230	3,720	3,570
Cherry Street, south of U.S. Hwy 65	5,270	5,820	N/A
Cherry Street, south of 15th Avenue	8,280	9,940	9,920

TABLE 4. TRAFFIC VOLUMES, Continued			
LOCATION	1993	1990	1988
LOCATION			
Cherry Street, south of 27th Avenue	6,420	7,570	7,250
Cherry Street, north of 41st Avenue	4,830	4,700	5,700
Fairfield Road, east of Celia Road	450	680	460
Faucett Road, west of Orlando	2,070	2,280	2,160
Franklin Street, north of 11th Avenue	3,180	2,890	2,720
Goodfaith Road, at railroad	1,710	1,100	1,290
Griderfield-Ladd Road, south of U.S. Hwy 65	1,330	1,380	510
Griderfield-Ladd Road, west of U.S. Hwy 425	410	360	370
Harding Avenue, west of SH 15 (Olive Street)	8,390	7,460	7,880
Harding Avenue, east of Ohio Street	15,140	16,370	13,820
Harding Avenue, west of Georgia Street	17,550	15,990	14,450
Hazel Street, south of 15th Avenue	8,070	7,440	5,270
Hazel Street, north of 22nd Avenue	12,140	11,810	11,610
Hazel Street, north of 46th Avenue	5,820	6,110	5,350
Hazel Street, north of 46th Avenue	6,160	5,730	5,460
Hazel Street, north of Ridgway Road	4,990	4,280	4,010
Hemlock Street, north of 10th Avenue	760	680	800
Hoadley Road, east of McGehee Street	1,800	2,550	2,330
Hoadley Road, east of Baldwin Road	1,890	2,580	2,370
Holland Street, east of Camp Road	710	780	680
Holland Street, east of Michaelann Drive	2,790	3,290	3,100
Holland Street, west of SH 365	1,580	1,590	1,470
Hutchinson Street, north of Holsey Street	4,760	4,450	3,930
Hutchinson Street, north of Industrial Drive	3,040	2,760	2,790
Hutchinson Street, north of Bullock Street	3,170	2,560	2,190
Hutchinson Street, south of Malcomb Street	3,430	3,090	2,640
Hutchinson Street, south of Princeton Pike	1,460	1,150	1,040
Jefferson Parkway, east of Industrial Drive	2,370	1,820	1,420
Main Street, south of 27th Avenue	2,310	3,430	N/A
Middle Warren Road, south of Old Warren Road	2,370	2,320	2,060
Middle Warren Road, north of Divoky Road	1,840	1,800	1,540
Middle Warren Road, north of Privatewood Drive	750	710	470
Miramar Drive, west of railroad	6,330	5,810	5,290
Monk Road, north of U.S. Hwy 270	660	630	440
Myrtle Street, at railroad	3,070	3,090	3,830
Oakwood Road, north of SH 54	2,520	2,260	2,020
Oakwood Road, south of 13th Avenue	4,010	3,720	3,710
Ohio Street, north of 26th Avenue	4,440	4,260	4,340
Ohio Street, south of 38th Avenue	1,790	1,370	1,880

TABLE 4. TRAFFIC VOLUMES, Continued			
LOCATION			
	1993	1990	1988
Old Warren Road, north of SH 54	1,010	720	710
Old Warren Road, at bayou	4,210	3,980	4,050
Plum Street, south of U.S. Hwy 65	13,280	12,370	N/A
Port Road, at railroad	5,150	6,510	5,460
Princeton Pike, east of Willis Road	2,490	2,410	1,760
Pullen Street, east of Birch Street	4,600	3,570	3,100
Pullen Street, west of Walnut Street	2,710	2,140	3,230
Reeker Street, west of Spruce Street	1,150	1,160	1,110
Ridgway Road, west of Hazel Street	3,320	2,820	3,030
Rhinehart Road, at railroad	4,710	4,360	3,840
Robin Street, north of U.S. Hwy 270	2,030	1,890	1,740
Ryburn Road, at railroad	930	890	910
Shannon Road, west of Oakwood Road	1,300	1,680	1,670
Sorrells Road, at railroad	850	760	680
Spruce Street, south of Havis Street	2,770	2,750	2,450
Spruce Street, north of Scull Street	2,970	2,430	2,550
Spruce Street, north of Burnet Street	1,660	n/a	n/a
Walnut Street, south of 6th Avenue	4,100	2,760	3,270
White Hall Road, west of Parkway Drive	2,060	1,860	2,030
Whiteville Road, west of railroad	320	220	200
2nd Avenue, west of SH 15	2,010	2,250	2,400
2nd Avenue, west of Walnut	2,020	2,420	2,650
2nd Avenue, west of University Avenue	2,600	3,090	1,800
6th Avenue, west of Apple Street	3,430	3,170	3,070
6th Avenue, west of Oakwood Road	1,290	1,190	1,270
8th Avenue, west of Georgia	6,550	5,020	6,260
8th Avenue, west of Beech Street	3,700	4,030	5,370
13th Avenue, east of Oakwood Road	1,590	1,690	1,760
13th Avenue, west of Larch	6,990	N/A	N/A
13th Avenue, east of railroad	7,940	8,170	5,310
13th Avenue, east of Cypress	5,690	7,610	5,000
16th Avenue, west of Ash Street	8,860	7,540	8,010
17th Avenue, west of Cypress Street	7,660	7,870	5,560
27th Avenue, west of Linden Street	8,010	7,540	7,610
28th Avenue, west of railroad overpass	23,420	23,700	22,990
28th Avenue, west of Fir Street	21,730	N/A	N/A
28th Avenue, west of Elm Street	8,400	8,830	7,040
28th Avenue, west of Ash Street	6,970	8,080	7,040
	-,		

TABLE 4. TRAFFIC VOLUMES, Continued			
LOCATION	1993	1990	1988
31st Avenue, west of Locust Street	2,610	3,090	2,300
31st Avenue, west of Hazel Street	6,270	4,970	5,200
34th Avenue, west of railroad	2,450	2,670	2,160
34th Avenue, east of Juniper Street	2,430	2,830	2,640
38th Avenue, west of Ohio Street	4,700	3,680	4,270
39th Avenue, west of Main Street	4,900	4,280	4,380
52nd Avenue, west of Ohio Street	1,490	N/A	1,530

CURRENT
LAND USE
AND
NATURAL
RESOURCES

#### LAND USE

Fundamental to a transportation plan is the development of a land use plan showing the general arrangement of residential, commercial, industrial, public and semi-public uses required to serve the anticipated future population. Quantitative analyses of the amount of land used for these various purposes is of some assistance in projecting the amount of developed land that will be required in the future. Knowing these land areas, it is possible to develop a plan, showing their optimum arrangement in relation to the core and the outlying areas.

The existing pattern of development within the study area must be taken into consideration. The future land use pattern will evolve gradually with improvements made to public facilities such as streets, water service and sewer lines. The land use plan should establish objectives which, if followed, will guide future development and create an efficient and attractive regional land use pattern.

In general, the urban pattern should not be broken by large tracts of vacant land. The development should be balanced around a common center, preferably the central business district, and transportation modes. This type of balanced pattern will provide a greater dispersion of traffic and enhance access to public services. The population need not be too dense; however, it should avoid being too scattered since an extremely low population density greatly increases the per household cost of public services and facilities.

Development within the non-urban portions of the study area should be encouraged in the form of clusters rather than in a strip manner along major transportation routes. This will facilitate the provision of utilities at a level and standard that is necessary to protect the public's general health and welfare. Density in the rural portions of the study area, however, should be kept as low as possible. The most productive farmland should be reserved for agricultural use and suitable open space and wildlife habitats should be preserved. Also wetlands, floodplain and environmental sensitive areas need to be preserved.

Following are descriptions of the general types of land uses in the Study Area and a brief portrait of the prevailing development trends.

#### RESIDENTIAL NEIGHBORHOODS

In the core of the Study Area, residential developments are generally organized into neighborhood units. These neighborhood units normally are bounded by major streets and each neighborhood usually contains between 2,500 and 5,000 persons, centered upon an elementary school, commercial area or public facility. The residential neighborhoods normally are between one-half and one mile square in size. Neighborhood shopping facilities are provided along arterial streets and major intersections. Traffic circulation should be designed to go around and not through the neighborhoods. In order to accomplish this objective, residential streets should be narrow and discontinuous in order to discourage heavy or fast through traffic.

It should be emphasized, however, that it is not necessary for an entire neighborhood to be developed with single-family homes. Properly arranged combinations of single-family homes, duplexes and multi-family dwellings may be placed in some neighborhoods, although careful attention should be given to the location of each of these uses. While satisfactory locations in outlying areas may be provided for duplexes and apartment buildings, particularly in areas adjacent to shopping centers or major centers of employment, most of the multi-family dwellings will continue to locate near the core of the study area. This has been a natural occurrence in the past as these areas are logical and convenient for such high-density uses.

#### **COMMERCIAL AREAS**

There are four general types of commercial centers, the largest of which is the central business district. The central business district is the hub of financial, professional and governmental services of the study area. It also is the location of commercial activities which serve the needs of those persons who work in the central business district and those surrounding neighborhoods. An objective of the land use plan should be to undertake measures necessary to encourage development of the present central business district as to make it a primary commercial center. It should however, regain its dominant position through its competitive energy and not by arbitrary prevention of competing centers by zoning action.

The second type of commercial use is the regional commercial center. This area serves general retail and related services of the PBATS study area. The general retail and service area includes those counties that are within the Pine Bluff market area. Such facilities preferably should be grouped in one location such as a shopping center which provides ample parking and having excellent access to the major transportation facilities.

The third type of commercial use is the neighborhood commercial area. This area serves the immediate needs of residential areas. Such facilities preferably should be grouped together into shopping centers providing ample parking areas and interfering as little as possible with adjacent residential uses.

The fourth type of commercial use is the general highway commercial area. This area contains automotive-oriented establishments such as motels, filling stations, restaurants, and similar facilities, catering to both local and transient business.

Commercial uses should be concentrated at or near the intersections of major streets. These are logical locations for neighborhood shopping centers and certain other types of commercial facilities. Commercial uses should not be allowed to spread along major street frontages. Only a small part of this type of frontage can be utilized for commercial purposes because of the limited amount of commercial area needed. Scattering commercial uses along major streets interferes with their traffic carrying capacity. Finally, the stores themselves, when grouped in logical centers are more vigorous business complexes than when each store is in a more isolated location.

#### INDUSTRIAL AREAS

The location of transportation facilities such as the airport, railroads, riverways, and major highways will influence the locations of industrial developments. Modern industries need large areas for adequate off-street parking and for future expansion. Many industrial processes have been improved and emission of smoke, gas, dust and noise has been eliminated or greatly reduced, so that they are not as objectionable as they were some years ago. The land use plan should provide for industrial sites which are adequate in area, have convenient access and pleasant surroundings.

Industries can be placed in more outlying locations, with the advantage of reversing the traffic flow at peak hours. New industrial growth need not be located in the outlying districts, because as older industrial areas become vacant they should be redeveloped.

### PUBLIC AND SEMI-PUBLIC USES AND PARK AREAS

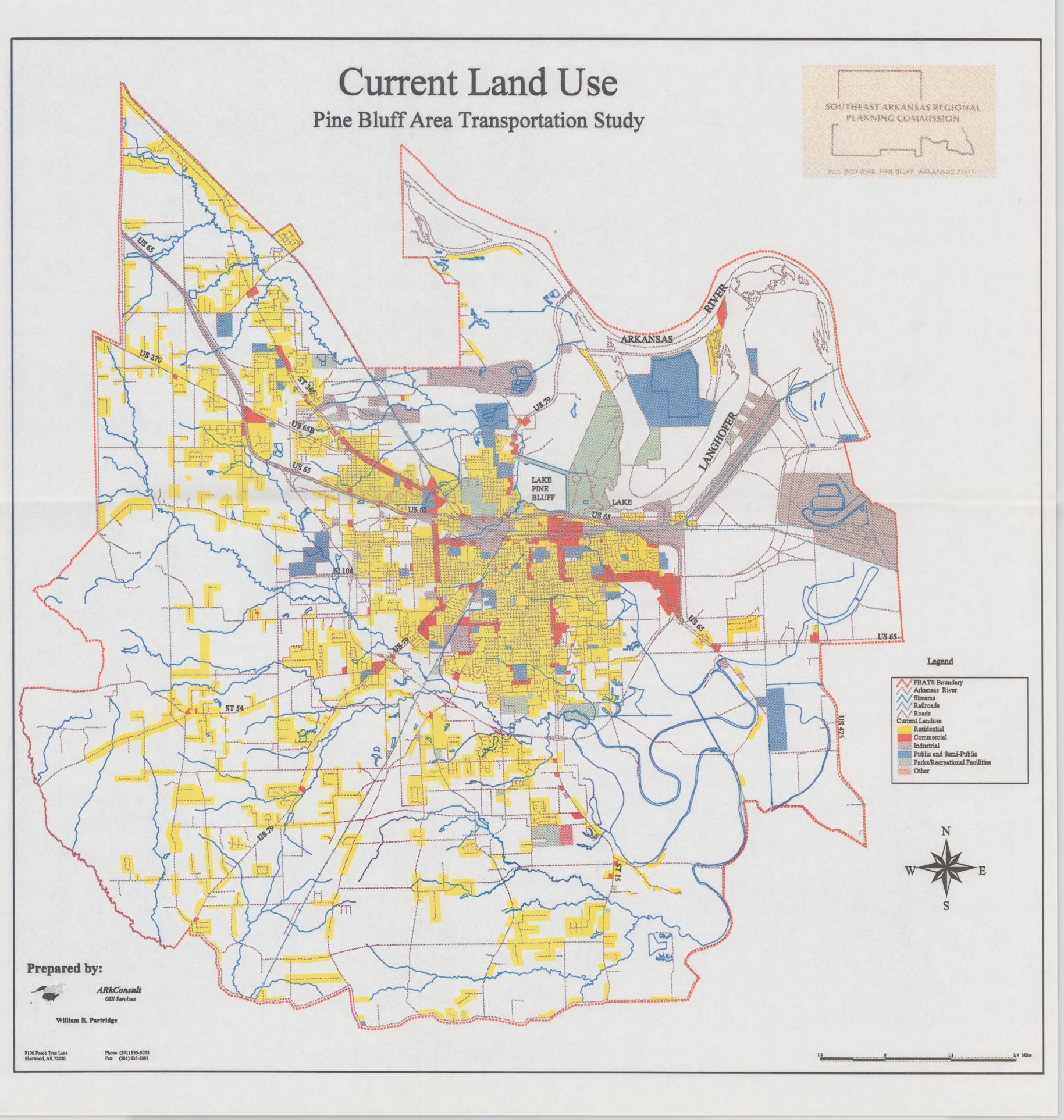
Scenic areas within the study area, and particularly substantial parts of the Arkansas River and Bayou Bartholomew, should be preserved and enhanced as part of the park system. Neighborhood parks should be developed in conjunction with elementary schools. Public and semi-public uses such as churches, institutions, clubs and golf courses provide the community with necessary open spaces. Where possible, large tracts of these land uses should be interconnected in a greenbelt fashion that would bisect other various land uses.

### CURRENT DEVELOPMENT TRENDS

The past urban development of the City of Pine Bluff has been relatively compact and quite similar to most urban centers in the midsouth region. Originally expanding in a uniform concentric form around the central business district. The Arkansas River, and its extensive floodplain in the eastern portion of the study area and the Bayou Bartholomew area were once barriers to unlimited growth in the north, south and east portions of the study area. Because of these barriers, the development of the study area was bound by the Arkansas River on the north, the floodplain on the east, Bayou Bartholomew on the south and Oakwood and Claud Road on the west. However, completion of the Southern Bypass will improve access to all areas of the study area. This improved access will have a strong influence on the expansion of low density residential, commercial and industrial developments in the study area fringe.

Railroads bisect the central core of the study area. Most early industrial development occurred in close proximity to the railroads. However, with the advent of better roads and improvements made in the trucking industry, the trend has been towards disbursing industrial locations throughout the core area. The main industrial areas are located at the Pine Bluff Port area, the Jefferson Industrial Park, and along major arterial and collector roads within the core area.

### MAP 2. CURRENT LAND USE



## HISTORICAL, CULTURAL, AND NATURAL RESOURCES

The surface and subsurface geologic resources principally play a subtle and indirect role in molding the characteristics of the Pine Bluff area. Except for a small amount of sand and gravel operations, the geology of the area has contributed little to the direct economic base of the Study Area. Similarly, there is little in the way of distinctive geologic features and formations that are unique to the Study Area. However, structural geologic hazards in the area have played and will continue to play a role in the growth and development of the Pine Bluff Area Transportation Study area.

The most critical relationship of geology to the Study Area is expressed topographic relief. Of key significance is the location of Pine Bluff essentially on the escarpment between the gently rolling coastal plain to the west, the flat alluvial plain to the east, and the dominance of riverine-sculptured features (see Map 3). This setting has provided Pine Bluff with a diversity of environmental resources, a diversity in economic base, and a diversity in its social characteristics. The setting has also been the key determinant in the pattern of growth and development of the Study Area and will continue to do so. The major contradictory topographic parts of the area has resulted in many of the current problems (drainage, flood control, and land use) which face the PBATS area.

Environmentally, the narrow, braided streams and the stands of mixed hardwoods and pines on the gently rolling uplands provide an array of habitats for species more commonly associated with the western portions of the State. To the east, the flat alluvial plain with its broad meandering rivers, numerous oxbow lakes and stands of bottom land hardwoods and semi-swamps provide habitat for lowland species characteristic of the Mississippi Delta system. In close association with the diversity of environs are a variety of recreational opportunities and opportunities for the scientific study of natural history within the Study Area.

Historically, the dominant elements in the settlement and development patterns of Jefferson County and the PBATS area have been that location and physical setting that provided a favorable setting for the development of a complex pre-European culture based on farming, hunting of animals, and gathering of edible plants, and led to European settlement in the early 1 800's. The rich alluvial plain gave the Study Area its first economic footing, that of agriculture (principally cotton). Around this base developed many of the early social characteristics of the area, which in large part, still remains today. With the development of the community, industries associated with timber, paper products, and other wood products also developed in response to the abundance of land to the west to support stands of managed pine. This economically inclined the area toward split natural land resources, agricultural and forestry. In recent years, many areas once cleared for their timber and for farming have been replanted with pine. This has added to the lumber reserves of the region.

Until World War II, the regional economy continued to be based almost exclusively on agriculture. With the war, the Pine Bluff Arsenal was located northwest of Pine Bluff, and an aviation training facility was established at Grider Field. Together, these facilities provided jobs for 3,500 to 3,700 local residents.

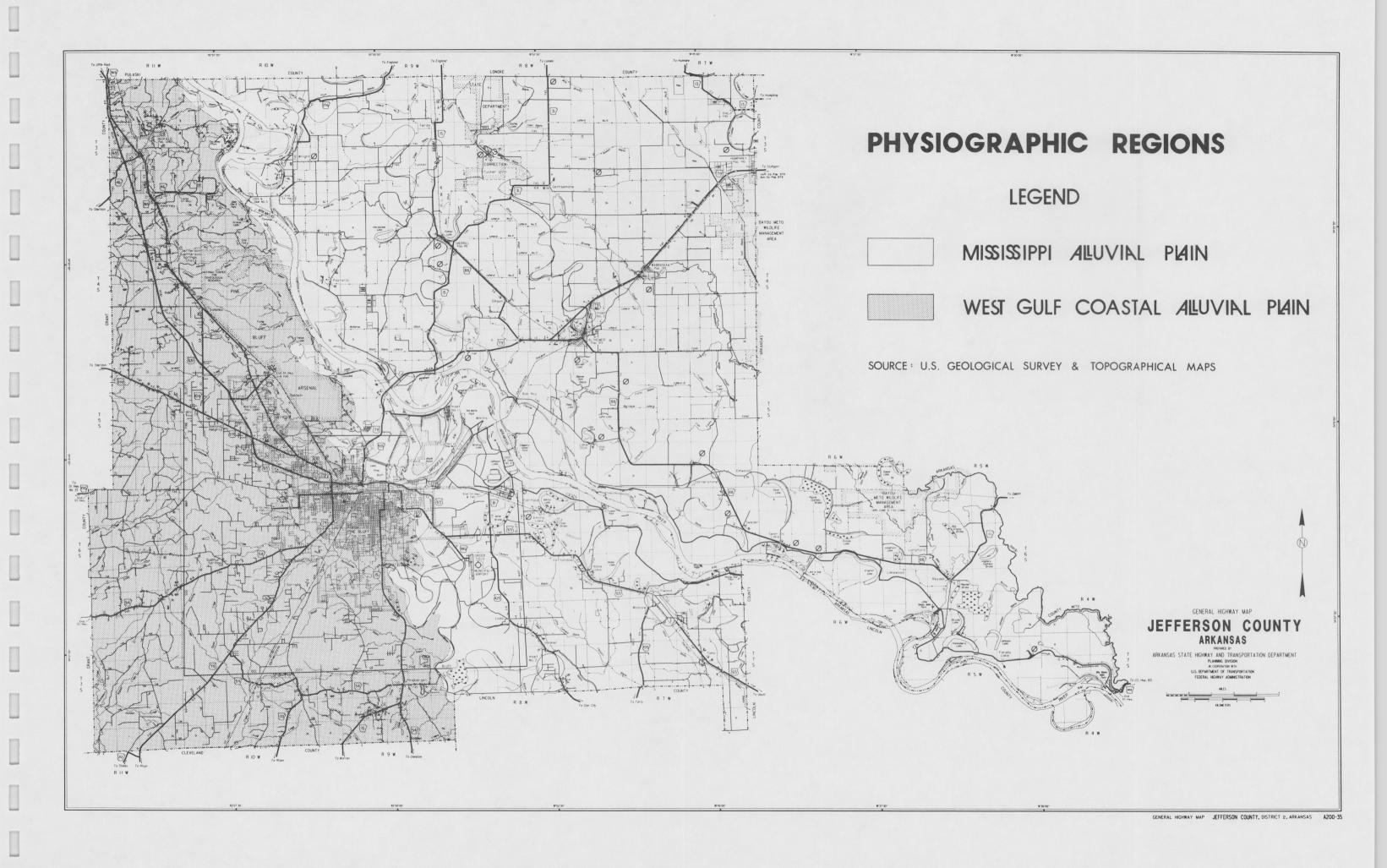
In the mid-1950's, the St. Louis-Southwestern Railroad built its gravity yards in Pine Bluff and transferred several employees from Tyler, Texas. Also during this period, a state-operated Vocation-Technical School and a regional hospital were built in the City to serve Jefferson County as well as adjacent counties.

In the 1960's, the Pine Bluff-Jefferson County Port Authority was created in anticipation of the Arkansas River becoming a major inland water transportation corridor into Oklahoma. With the McClellan-Kerr Arkansas River Navigation Project, which made the river navigable from Oklahoma to the Mississippi River, the Arkansas River became a major transportation corridor in the County and has attracted new industries to the Port of Pine Bluff and the Jefferson Industrial Park.

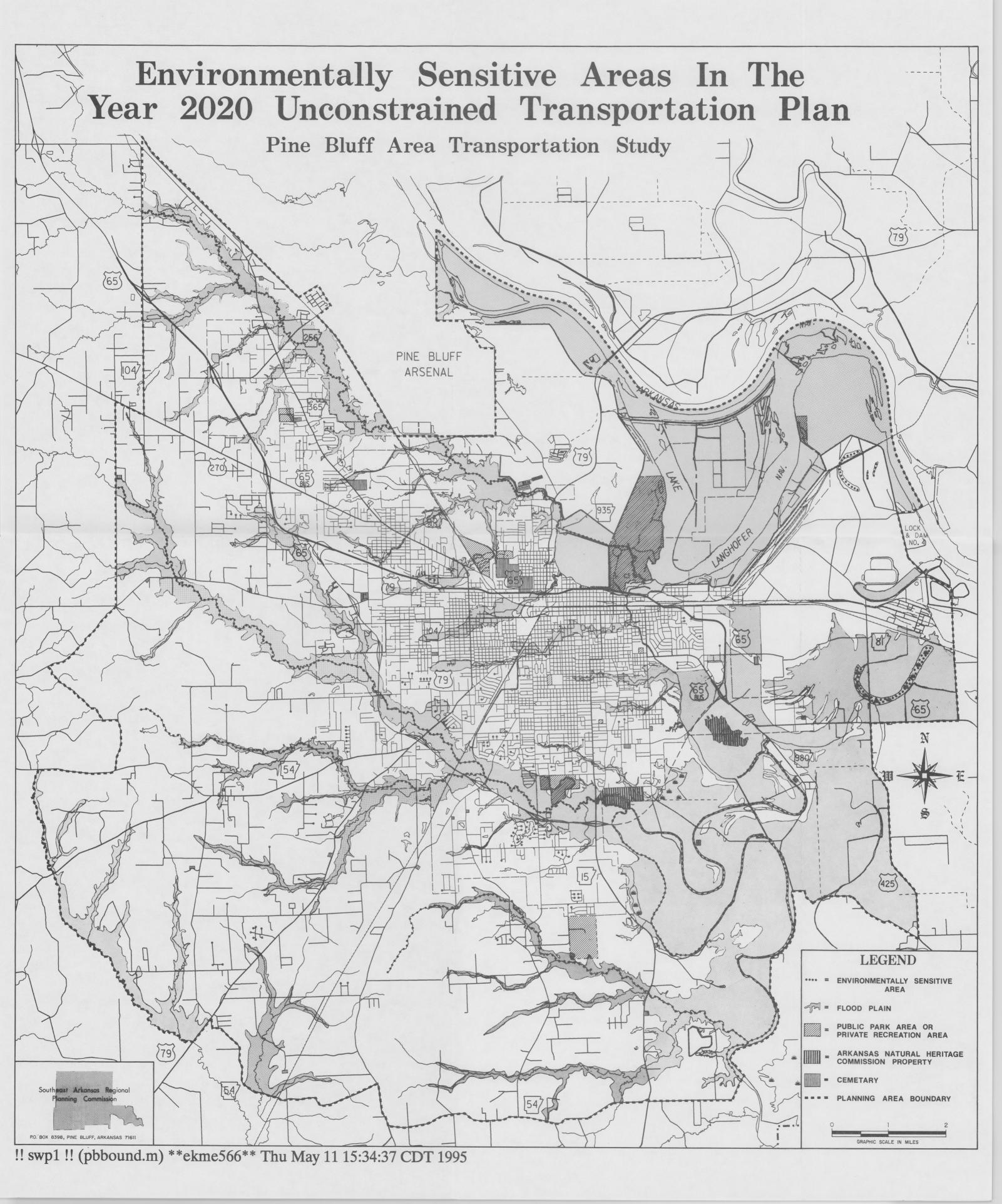
The physical development of the area has followed its topographic patterns. Much of the early development was located on the high grounds adjacent to the escarpment and in close proximity to both the alluvial plain and uplands. As the area developed, it spread both westward and eastward. In the latter direction, limitations to development were quickly encountered in the form of poor drainage and chronic flooding. The same limitations persist with the Study Area today.

Still, urban growth causes a demand to convert natural resources into urban land. This conversion process is necessary to maintain the viability and well-being of the community. However, despite the abundance of land and water resources within the Study Area, these natural other resources that affect the quality of our environment and identity of the area must be protected. There are a number of environmental, historic, cultural, and aesthetic resources within the Study Area that warrant restoration, preservation, and/or enhancement. During the development of the 2020 Transportation Plan, a review was conducted of all available documents dealing with environmental, historic, cultural, and aesthetically significant resources within the Study Area. These resources were identified, and the major resources of the Study Area are shown on Map 4. In addition, various transportation links were analyzed in terms of meeting the community overall economic, social, and environmental needs, and due consideration was given in developing a transportation network that services the community needs while providing opportunities to insure that the natural and other resources can be used and enjoyed by future generations.

# MAP 3. JEFFERSON COUNTY GEOGRAPHICAL DIVISION



# MAP 4. ENVIRONMENTALLY SENSITIVE AREAS



COMMUNITY
CONTROLS
AND
PRESERVATION
OF
RIGHT-OF-WAY

It has long been a trend within the Study Area for most growth to occur south and southwest of the Pine Bluff city limits and all around White Hall except to its east (the Pine Bluff Arsenal Boundary stops eastern growth in this area). The Year 2020 Transportation Plan was developed partly in relation to existing development and roads, existing travel patterns, and logical road extensions in conjunction with north-south and east-west movement as well as other master plans such as Pine Bluff's Master Sewer Plan. In addition, development is more apt to occur in these areas due to the absence of extensive flood-prone lands and because the soils of the area are more suitable for urban development. Other considerations included future commercial development near the Pines Mall and existing and future industrial development in the Port of Pine Bluff and Jefferson Industrial Park.

It is a city's right as well as its duty to guide growth and provide for expansions by regulating where residential, commercial, and industrial growth shall occur and how residents and employees can travel from home to job to shopping to service centers. Cities of the first and second class in Arkansas are empowered by Act 186 of 1957, as amended, to establish a planning commission, prepare plans, adopt the prepared plans, and develop implementing regulations. In fact, each city that utilizes zoning and subdivision regulations must develop at a minimum a land use plan and a master street plan for the city and the extraterritorial jurisdiction that encompasses its planning area. These plans provide the basis of the zoning and subdivision regulations which are the tools a city uses to provide for orderly growth and to provide for access to and from the areas where people reside, work, shop, etc.

### LAND USE PLAN

The land use plan contained in this section (see Map 5) is the Year 2020 Transportation Plan Land Use Plan. This plan is based on the concept of guiding existing development trends in accordance with the goals and objectives obtained from the City of Pine Bluff's Land Use Plan, Jefferson County Development Framework, and White Hall's Land Use Plan. These three plans were prepared based on the requirements for future land uses. In the process of developing the three land use plans, various land use requirement projects, other land use related studies, and the PBATS Transportation Plan were evaluated and assembled into the land use plan for each local entity.

There are four primary classifications of land use that are set forth in the Land Use Plan. Their purpose by type are:

- 1. Residential Land Uses: to provide for the distribution and density of residential uses based on the projected population; the optimum utilization of land based upon physical limitations (floodplains, water resources, soils, and slope, etc.); and the functional relationship of public utilities and facilities and the transportation system.
- 2. Commercial Land Uses: to provide sufficient commercial land located throughout the community to serve the proposed residential land uses and support the projected population, and to maintain the existing commercial areas. The location of such land

uses should also have a functional relationship with the transportation system and be adequately accessed from the residential areas.

- 3. Industrial Land Uses: to provide sufficient industrial land uses within the community to provide employment opportunities for the projected population and to maintain the existing industrial areas. The location of such land uses should be in areas that have direct access to intermodal transportation systems and be accessible to the residential neighborhoods in the community. The industrial land uses should be environmentally compatible with the surrounding land uses.
- 4. Open Space: to preserve and acquire open space for a variety of purposes such as recreational resources, flood control and management, conservation of natural resources and wildlife habitat, preservation of historical, architectural and archeological sites, and protection of environmentally sensitive areas.

Following is a summary of the different kinds of land uses established for the Study Area.

### RESIDENTIAL AREAS

The Land Use Plan shows two categories of residential use ranging from low and medium density to high intensity multi-family areas. The net density implied in each of these areas is as follows:

- Low to Medium Density: one to two dwelling units per acre;
- <u>High Density</u>: three or more dwelling units per acre.

Net density represents the number of dwelling units per net acre of land devoted to residential buildings and accessory uses on the same lot, excluding land for streets, public parking, playgrounds and non-residential uses.

The plan assumes that public water and sanitary sewer service would be provided to all but the low end of the density classification. Since there is no county zoning, it is anticipated that urban sprawl will continue outside the two cities.

The plan makes ample provision for the estimated future residential areas needed to serve the projected regional population of 88,303 persons. In other words, the residential areas shown on the land use plan will not be fully developed by the year 2020. The region will still be expanding and growth is expected to take place in the areas shown on the plan.

### COMMERCIAL AREAS

The Pine Bluff Central Business District is no longer a dominant commercial center, but it still remains the center for financial institutions and governmental offices. Commercial

activities have spread throughout the central core area in shopping centers and strip commercial development located along the main streets within the study area.

The commercial land uses designated on the plan to meet the residential land use needs and those of the Pine Bluff marketing area have been located strategically throughout the community adjacent to major street intersections.

### **INDUSTRIAL AREAS**

The location of transportation facilities will influence industrial locations in the future, although additional factors affecting new industrial sites have to be taken into consideration. These factors are the need for large areas to accommodate modern one-story operations and the fact that many industrial processes have been improved which substantially reduce, if not eliminate, the emission of smoke, gas, dust and other objectionable features usually associated with industry. Industrial firms seeking a new location are looking for suitable wide open spaces just as the residential and shopping center developer, and at the same time, other urban land uses are not likely to object to being close to a well designed industrial building situated on an attractively landscaped lot. Based on this premise, the land use plan provides for industrial sites which are more than adequate in area, have reasonably pleasant surroundings, and have good and convenient access.

### PUBLIC AND SEMI-PUBLIC AREAS

Schools, churches, cemeteries, and public facilities comprise the major land areas in this category. Schools will be needed as new development takes place. Wherever possible, elementary school sites should be located close to the center of each neighborhood in connection with a neighborhood park.

### OPEN SPACE AND ENVIRONMENTALLY SENSITIVE AREAS

These types of land uses are important for a community and society as a whole. Open space refers to land which are used for park and recreation. It also refers to land which is not desirable for urban development because of its topography such as land located in floodplain areas, areas with poor slope and soil conditions, or other assorted problems associated with development. Environmentally sensitive areas refer to those geographic areas that support unique wildlife and flora life, areas with historical importance, and wetlands.

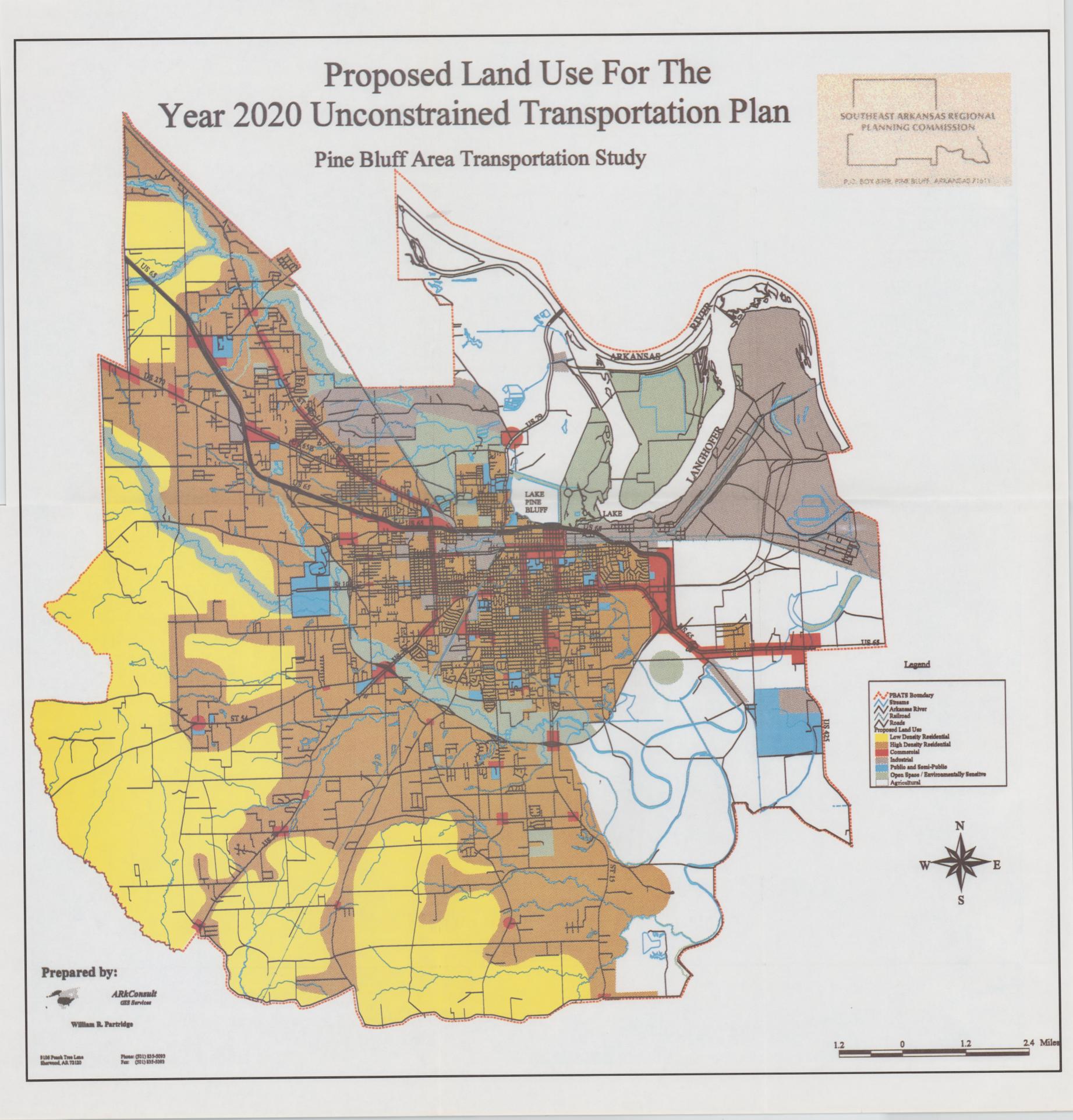
### **AGRICULTURE**

Agriculture refers to land which is used for prime agricultural purposes and that should be used for said purpose.

Neither the local jurisdictions' nor the transportation land use plans will be in completely implemented by the year 2020 because the pattern man establishes upon the landscape changes very slowly. But, if there is widespread understanding of the plan and the rationale behind it, a considerable amount of progress can be made. The growth will occur slowly and will take place in the southern, southwestern, and northwestern portions of the study area. Urban development will likely fade into the countryside and continue to expand outward from the core area, even beyond the limits of the present study area. In this respect, the ultimate urban landscape is limited only by the practicality of extending services and the extent to which farmland and woodlands are allowed to be converted into urban uses.

The proposed land use plan indicates the general arrangement of residential, commercial, industrial, public, semi-public, and recreational uses required to serve the study area's estimated 2020 population of 88,303 persons. In addition, the plan reflects open space areas needed to serve the immediate anticipated population growth, and also areas that because of topographic conditions or other factors should never be allowed to develop intensively.

## MAP 5. LAND USE PLAN



### MASTER STREET PLANS

The purpose of a Master Street Plan is to provide for the orderly growth and development of a city through the safe and efficient movement of people and goods. Transportation planning renders adequate access to developing areas as well as providing needed transportation improvements to established areas. Good transportation planning that is based on a viable plan is essential to a city's growth. Through such planning, a city becomes able to take advantage of important features of the community by providing the access to these features.

A Plan focuses attention on needs identified by existing conditions as well as on needs that are based upon future demands. In addition, a schedule of improvements can be established based on priorities and the capital improvements program. These priorities may change or new priorities may develop but through a continuing transportation planning process, they can be anticipated and absorbed into the Plan.

The Cities of Pine Bluff and White Hall each have adopted a Master Street and Land Use Plan as well as Subdivision and Zoning Regulations in order that the cities will experience orderly and planned growth. These City Master Street Plans include, at a minimum, all roads identified on the Year 2020 Plan. The roadways contained in these transportation plans are classified by the way the facility functions in terms of type of traffic carried. The State of Arkansas mandates that the system be classified into one of five classes. Following are descriptions of the classification of streets as shown on the street/transportation plans, a cross section diagram of each type, vehicle capacity, right-of-way required, pavement width, recommended vehicle speed, etc.

INTERSTATE FREEWAYS: High speed, high volume, multi-lane access-controlled facilities with no access to adjacent land uses, and grade separations at all cross streets. They provide basic interstate service linking major cities as recognized by the Federal Highway Administration.

OTHER FREEWAY AND EXPRESSWAYS:

High speed, high volume, multi-lane facilities with a very high degree of access control providing traffic service to long distance traffic across the metropolitan area. Access is severely limited to public road intersections or preferably, grade separated interchanges.

PRINCIPAL ARTERIAL:

Multi-lane, moderately high volume roads serving major centers of activity in the urban area and carrying a high proportion of total urban area travel. Trips are for long distances, and access may be controlled through limited curb cuts, medians, etc. to preserve travel mobility.

MINOR ARTERIAL:

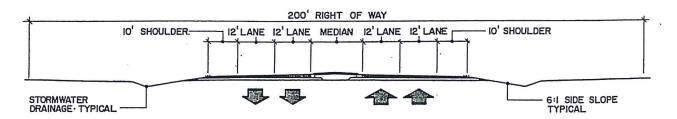
Multi-lane, moderately high volume roadways carrying traffic for shorter distances between higher class facilities. A lower level of travel mobility is achieved through minimal control of access to abutting land uses.

COLLECTOR:

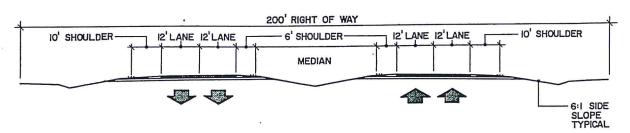
Typically low volume two-lane roads which provide access in and out of neighborhoods for short distances to the arterial system. In areas of unusually dense development they may be four-lane.

The following cross-sections were developed for each functional class to ensure the orderly growth of the area-wide street network so that it may function properly as envisioned in the 2020 Transportation Plan. Right-of-way and lane widths vary in order to provide sufficient traffic service and safety given the desired travel speeds for each functional class. Minimum cross-sections are ideals for roadways in new locations or widening of existing roadways in areas with development that does not significantly encroach on the recommended right-of-way. In heavily developed areas, reduction of right-of-way and roadway width may be approved on a case by case basis to avoid incurring prohibitive costs and/or undesirable negative impacts.

### FREEWAY/EXPRESSWAY



# TYPICAL SECTION OF A RAISED MEDIAN EXPRESSWAY



# TYPICAL SECTION OF A DEPRESSED MEDIAN EXPRESSWAY

Capacity

- 38,000 vpd expressway; 71,700 vpd freeway.

Service Volume - 28,300 vpd expressway; 44,800 vpd freeway.

Speed

- 45-55 mph.

Traffic Lanes

- Four 12 foot lanes; where at-grade intersections occur on expressways, right and left turn lanes should be provided.

Parking Lanes

- None; emergency parking permitted on shoulders.

Shoulders

- 10 foot outside and six foot inside shoulders.

Side Slopes

- Slopes should not exceed a minimum ratio of 6:1 to a distance of 30

feet from the edge of traffic lanes.

Paved Width

- 98 feet depressed; 84 feet raised; width includes median.

Right-of-Way

- 200 feet; on Federally funded and State projects, R/W requirement

will normally be 300 feet, with more at interchanges.

Sidewalks

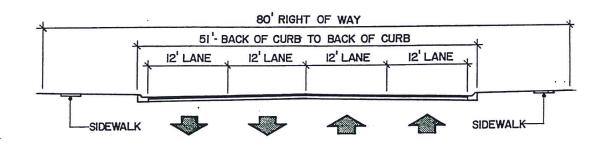
None.

Median

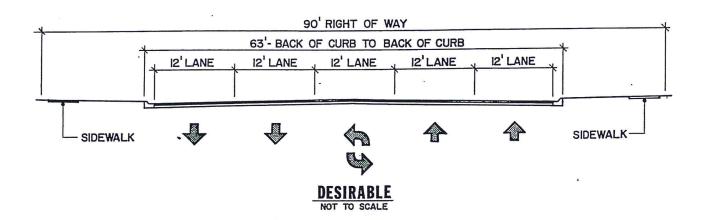
- 24 feet minimum desirable; median is measured between edges of opposing traffic lanes; when Federal funding is involved, the depressed median shown as 18 feet should be 48 feet; this provides a 60 foot median: 48 feet plus two 6-foot shoulders; when raised median is used, a New Jersey barrier wall is normally used for safety.

Frontage Roads - Should not be permitted except where existing development needs frontage roads to maintain access. Freeway exit ramps will not intersect frontage roads unless the frontage is one-way in the same direction.

### PRINCIPLE ARTERIAL



# NOT TO SCALE



Capacity

- 22,800 vpd; 27,600 vpd with left turn lane.

Service Volume - 17,000 vpd; 20,600 vpd with left turn lane.

Speed

- 40-45 mph.

Traffic Lanes

- Four 12 foot travel lanes; 12 foot left turn bay at intersections where necessary, and a continuous turn lane where there are high volumes of mid-block turns.

Parking Lanes

- None.

Paved Width

- 51 feet minimum from back of curb to 63 feet with a continuous turn lane.

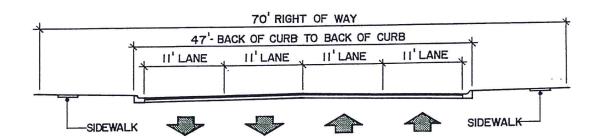
Right-of-Way

- 80 feet minimum; 90 feet for intersection widening and where possible for five lane sections.

Sidewalks

- Two 4 foot minimum sidewalks; 8 foot clearance from traffic lanes where possible; consideration should be given to widening in vicinity of schools or where high pedestrian traffic occurs.

### MINOR ARTERIAL



Capacity

- 16,300 vpd; 19,800 vpd with left turn lane.

Service Volume - 12,200 vpd; 14,800 vpd with left turn lane.

Speed

!.

- 35-40 mph.

Traffic Lanes

- Four 11 foot travel lanes; 11 foot left turn lane may be necessary at intersections and in areas with high volumes of mid-block turns.

Parking lanes

- None.

Paved Width

- 47 feet; 56 feet with turn lane.

Right-of-Way

- 70 feet minimum; 80 feet for intersection widening and where

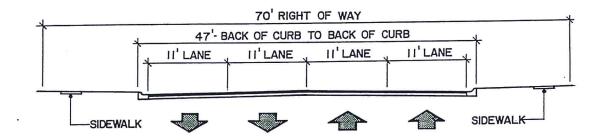
possible for five lane sections.

Sidewalks

- Two 4 foot minimum sidewalks; 8 foot clearance from traffic lanes where possible; consideration should be given to widening in vicinity of schools or where high pedestrian traffic occurs.

### COLLECTOR

HIGH DENSITY: For use over short distances in commercial, industrial, apartment, and other high density areas



Capacity

- 12,200 vpd; 14,800 vpd with left turn lane. Service Volume - 10,700 vpd; 12,900 vpd with left turn lane.

Speed

- 25-35 mph.

Traffic Lanes

- Four 11 foot travel lanes; 11 foot left turn lane may be necessary at intersections and in areas with high volumes of mid-block turns.

Parking lanes

- None.

Paved Width

- 47 feet.

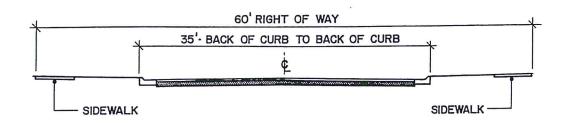
Right-of-Way - 70 feet minimum; 80 feet for intersection widening

Sidewalks

- Two 4 foot minimum sidewalks; 8 foot clearance from traffic lanes where possible; consideration should be given to widening in vicinity of schools or where high pedestrian traffic occurs.

#### COLLECTOR

**LOW DENSITY:** For use primarily in residential and other low density area.



Capacity - 12 foot approach: 6,200 vpd; 8,800 vpd with left turn lane.

11 foot approach: 5,900 vpd; 8,500 with left turn lane.

Service Volume - 12 foot approach: 4,700 vpd; 6,900 vpd with left turn lane.

11 foot approach: 4,000 vpd; 5,800 with left turn lane.

Speed - 25-30 mph.

Traffic Lanes - Two 11 foot travel lanes; 10 foot left turn lane at intersections where

necessary.

Parking lanes - 10 foot lane provided but not necessarily defined; none when turn lane

is provided.

Paved Width - 35 feet. Right-of-Way - 60 feet.

Sidewalks - Two 4 foot minimum sidewalks; 8 foot clearance from traffic lanes

where possible; consideration should be given to widening in vicinity

of schools or where high pedestrian traffic occurs.

### SUBDIVISION REGULATIONS

Subdivision regulations for the Cities of Pine Bluff and White Hall ensure proper development within the cities and their areas of extraterritorial jurisdiction while protecting the developer, homeowner, and the cities from improper infrastructure construction and uncontrolled growth. Through these regulations, proposed facilities shown on the cities' Master Street Plans and on the portion of the Year 2020 Transportation Plan contained in the cities' planning area can be required to be constructed according to proper standards and specifications. Conformity to these standards, and the provisions for the dedication of rights-of-way, enable the cities to control their growth and development while assisting in the implementation of the Master Street/Transportation Plans.

### **ZONING REGULATIONS**

The most direct way of influencing the development of a community is through the application of a zoning code. Both Pine Bluff and White Hall have adopted and administer zoning regulations. Zoning classifications regulate the type and intensity of development, thereby regulating the activity a development will generate and protecting the existing and proposed transportation facilities from ineffectiveness and overcrowding. Zoning also regulates structure setbacks from a proposed street right-of-way and existing transportation facilities and their eventual improvements. Therefore, adherence to setback requirements assists in the preservation of rights-of-way for future facilities that are contained in a master street plan.

PINE BLUFF AREA
TRANSPORTATION
STUDY
YEAR 2020
TRANSPORTATION
PLAN

### THE UNCONSTRAINED PLAN

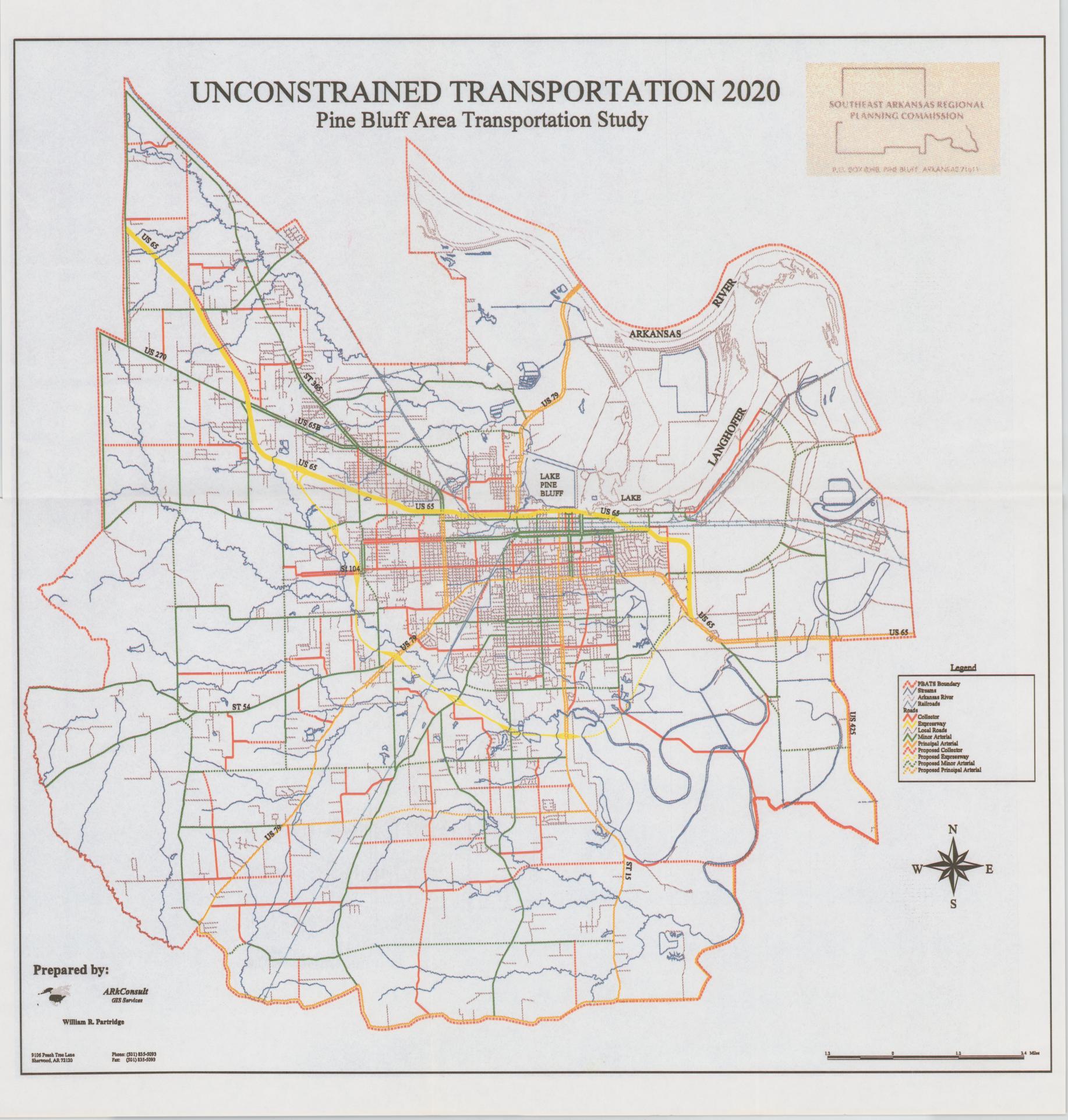
The Year 2020 Unconstrained Transportation Plan is the optimum plan that would serve the Study Area transportation needs through the Year 2020 and beyond. The Unconstrained Plan is integrated with the land use plan to ensure that when development does occur in any location within the Study Area, the land uses being served will have transportation linkages serving them. By considering the relationship between the types and intensity of the land uses and the generation of traffic movements between them, the Transportation Plan, in conjunction with the land use plan, will shape the pattern of urban development, improve the livability of the area, and allow for the complete use of transportation facilities.

The Year 2020 Unconstrained Transportation Plan has not changed dramatically from the first Pine Bluff Area Transportation Plan adopted in 1969 for the year 1990 and its revisions. The 1990 Plan was based on travel needs of the 1990 population and employment as projected using figures from 1940 through the mid-1960's. During that period, the Pine Bluff area population tripled. Since 1970, the Pine Bluff area has not experienced any significant population growth; the area has, however, undergone a decided shift in population from the core of the City to the fringe areas. The Study Area has been expanded outward from the original Study Area to reflect this movement by the population. Generally, the arterial streets within the Unconstrained Plan have been spaced at approximately one-mile intervals within the Study Area. Collector streets have been located as nearly as possible to the mid-point between the arterials using existing streets where possible to provide for connections between the local street system and the arterial street pattern.

As stated in the previous section, facilities on the Year 2020 Unconstrained Transportation Plan are also contained in the Master Street Plan for those jurisdictional areas of the Cities of Pine Bluff and White Hall located within the Study Area. These Master Street Plans are recognized under Act 186 of 1957, as amended, of the Arkansas State Statutes and are the instruments used by the Cities to preserve future rights-of-way for the major street system. The State Statute states that Master Street Plans shall include the general location of streets and highways to be reserved for future public acquisitions and that they may provide for the removal, relocation, widening, narrowing, vacation, abandonment, change of use, or extension of any public way. The Cities of Pine Bluff and White Hall, through their subdivision regulations adopted under this State Statute, require persons subdividing their property to make the appropriate road dedications and improvements as shown on their Master Street Plan. Cross-sections for arterial and collector streets for both cities are the same as those identified in the previous section of this plan.

1

## MAP 6. UNCONSTRAINED TRANSPORTATION PLAN



## THE YEAR 2020 CONSTRAINED TRANSPORTATION PLAN AND CAPITAL IMPROVEMENT PROGRAM

### **OVERVIEW**

In order to have a viable plan that can be used by the public and private sectors as a development guide, an implementation plan that shows what transportation projects will be implemented during a specific time frame must be prepared. The basic elements in preparing and adopting the implementation, or constrained, plan are 1) determining what transportation links on the Year 2020 Unconstrained Transportation Plan need to be implemented based on expected travel needs and 2) the availability of financial resources to implement the projects.

Through the planning process, the PBATS Policy Committee adopted both the Unconstrained and Constrained Transportation Plans. The Constrained Plan, shown on Map 7, represents the transportation projects the local jurisdictions and the State plan to implement during the next twenty-five years. The Plan was developed through public input and technical considerations and is also based on the following concepts:

- <u>Traffic Service</u> What is the perceived level of transportation movement within the Study Area?
- <u>Community Value</u> What role does transportation play not only in meeting the community travel needs but also in meeting social, environmental, historical, and economic requirements?
- Networking Continuity To what degree does the transportation system allow for continuous traffic movements throughout the Study Area?
- <u>Functional Classification of Roadways</u> Does the proposed transportation system maintain the proper spacing, and will the streets function as previously described?
- <u>Use of Existing Facilities</u> Does the proposed Plan maximize the existing transportation system?
- <u>Growth Potential</u> Is the proposed Plan compatible with the transportation needs of future development?
- <u>Implementation</u> Are the selected projects necessary to ensure that the community remains a strong and vital place where residents can prosper?

The Capital Improvements Program on pages 59 through 64 lists which projects will be implemented during a certain time period, the estimated cost of each project in 1994 dollars, what jurisdiction is responsible for implementing each project, and a brief project description.

### **FINANCIAL PLAN**

A long range financial plan is necessary to determine what amount of capital is available to implement transportation improvement projects in the Year 2020 PBATS Constrained Transportation Plan. The Arkansas Highway and Transportation Department furnished PBATS with the estimated amount of Federal and State funds that would be available to implement surface transportation projects in the Study Area over the next twenty-five years. In order to determine what amount of funds will be available for implementing transportation projects at the local level in future years, an evaluation of past local transportation revenue and expenditures was necessary.

The evaluation of local revenues consisted of reviewing the amounts of revenue and expenditures for each local jurisdiction from 1984 through 1993. Revenues consisted of property tax collected for road funds, Highway Turnback Gasoline Tax, and other revenues. Other revenues included funds transferred from the general fund to the street and road funds, Community Development Block Grant funds obtained from the U. S. Department of Housing and Urban Development, and a variety of other sources. The review of available resources over the ten year period showed that the amount of revenue collected through the property millage tax and Highway Turnback for each local jurisdiction increased at an annual rate of approximately four percent (4%) whereas the revenue collected from other sources deviated greatly from year to year. One conclusion that can be drawn from the review is that when the local jurisdiction decides to construct a transportation project of any significant size in a specific year, a large amount of money is listed under 'Other Revenue.'

This evaluation also included an analysis of the cost of each transportation improvement project implemented by the local jurisdiction in order to ascertain what amount of local revenue can reasonably be set aside for transportation projects. The majority of revenues for disbursements in the road and street funds for the local jurisdictions are used for routine maintenance, purchases of capital equipment, and to match federal aid road projects. Due to the taxation constraints placed on local jurisdictions, it is difficult to find available financial resources for implementation of local transportation improvement projects. This is not to say that local jurisdictions have not implemented or are not in the process of implementing local transportation improvement projects. Some of the projects the City of Pine Bluff has implemented in the last ten years are:

- 1. Harding Avenue preparation of construction plans and purchase of ROW
- 2. Elimination of West 2nd Avenue jog
- 3. Connection of Pullen and Second Avenue
- 4. Installation of Mall lights
- 5. Reconstruction of 13th Avenue
- 6. Reconstruction of Orlando (Walmart Site)
- 7. Improvements to Olive and Harding Intersection
- 8. Construction of Convention Center Drive

Jefferson County has also been involved in implementing transportation improvement projects within the Study Area. Four of the projects are:

- 1. Reconstruction of Island Harbor Marina Road
- 2. Reconstruction of the roads in Island Harbor Estates neighborhood
- 3. Reconstruction of a portion of Jefferson Parkway
- 4. Construction of various bridges

Although the City of White Hall has not implemented any transportation improvement projects within the last ten years, the City has made an extraordinary effort in improving its overall maintenance program. For two consecutive years in the mid-1980's, the City's one percent sales tax money was allocated to the street fund for the purpose of implementing an overlay program.

Based on the evaluation of local jurisdiction transportation revenues and expenditures, it appears that local jurisdictions have, over the preceding ten year period, been able to allocate approximately five percent (5%) of its revenue sources for the implementation of major maintenance projects and construction of new transportation facilities as identified in the Capital Improvement Program on pages 59 through 64. Tables 5 through 7 show the projected dedicated revenue and other revenue for the years 1995 through 2020. These tables also show the amount of funds that would be available for transportation improvement projects assuming that five percent (5%) of the available revenue is set aside for that purpose.

There are two exceptions when comparing the amount of revenue available for the local jurisdictions with capital improvement projects. The City of Pine Bluff plans on utilizing Community Development funding allocations to construct the Hazel Street link located between 6th Avenue and 17th Avenue. The amount of funds estimated to construct the project is \$1,300,000 and is not reflected as part of the five percent of available revenue set aside for capital improvements. The second exception is that the City of White Hall's available revenue set aside to implement a Capital Improvement Program over a short time period is not sufficient to implement a major project. However, over a twenty-five year period, a sufficient amount of revenue could be set aside to undertake a major activity. Within the Capital Improvement Program, the City of White Hall plans on constructing Caney Road and reconstructing West Holland Street. These projects are planned for implementation some time after the year 2001.

For the twenty-five year planning period, the annual obligation limit allocated by the Arkansas Highway and Transportation Department for the urbanized portion of the Planning Area is:

FUNDING CATEGORY	AMOUNT
Interstate Funds	\$0
National Highway System (NHS)/Surface Transportation Program (STP)	\$2,600,000
Bridge	\$200,000
STP (local)	\$300,000
Enhancement	\$100,000
State Maintenance	\$200,000

TABLE 5

PINE BLUFF
PROJECTED DEDICATED REVENUE AND OTHER SOURCES

YEAR	MILLAGE	HIGHWAY	I	AVAILABLE
		TURNBACK	OTHER	FOR TRANS.
				PROJECTS
				(5%)
1992	\$401,735	\$2,130,472	\$498,406	\$3,303,614
1993	\$417,804	\$2,215,692	\$518,342	\$3,151,838
1994	\$434,517	\$2,304,320	\$539,076	\$3,277,913
1995	\$451,897	\$2,396,492	\$560,639	\$3,409,028
1996	\$469,973	\$2,492,352	\$583,065	\$3,545,390
1997	\$488,772	\$2,592,046	\$606,387	\$3,687,205
1998	\$508,323	\$2,695,728	\$630,642	\$3,834,693
1999	\$528,655	\$2,803,597	\$655,868	\$3,988,080
2000	\$549,882	\$2,915,699	\$682,103	\$4,147,684
2001	\$571,794	\$3,032,327	\$709,387	\$4,313,508
2002	\$594,666	\$3,153,620	\$737,763	\$4,486,049
2003	\$618,453	\$3,279,650	\$767,273	\$4,665,376
2004	\$643,191	\$3,410,956	\$797,964	\$4,852,111
2005	\$668,918	\$3,547,394	\$829,883	\$5,046,195
2006	\$695,675	\$3,689,290	\$864,078	\$5,249,043
2007	\$723,502	\$3,836,862	\$897,601	\$5,439,965
2008	\$752,442	\$3,990,336	\$933,505	\$5,676,283
2009	\$782,540	\$4,149,950	\$970,845	\$5,903,335
2010	\$813,841	\$4,357,447	\$1,009,679	\$6,180,967
2011	\$846,395	\$4,531,745	\$1,050,066	\$6,395,652
2012	\$880,250	\$4,713,015	\$1,092,069	\$6,685,334
2013	\$915,460	\$4,901,535	\$1,135,752	\$6,952,747
2014	\$952,079	\$5,097,597	\$1,181,182	\$7,230,858
2015	\$990,162	\$5,301,501	\$1,228,429	\$7,520,092
2016	\$1,029,768	\$5,513,561	\$1,277,566	\$7,820,895
2017	\$1,070,960	\$5,734,103	\$1,328,669	\$8,133,732
2018	\$1,113,798	\$5,963,467	\$1,381,816	\$8,416,243
2019	\$1,158,350	\$6,202,006	\$1,437,088	\$8,797,444
2020	\$1,204,684	\$6,512,106	\$1,494,572	\$9,211,369

JEFFERSON COUNTY
PROJECTED DEDICATED REVENUE AND OTHER SOURCES

TABLE 6

YEAR	MILLAGE	HIGHWAY TURNBACK	OTHER	AVAILABLE FOR TRANS. PROJECTS
				(5%)
1000	Ø1 116 62 4	Ø1 000 001	0104110	00 451 144
1992	\$1,116,634	\$1,220,391	\$134,119	\$2,471,144
1993	\$1,161,300	\$1,269,207	\$139,484	\$2,569,991
1994	\$1,207,752	\$1,319,975	\$145,063	\$2,672,790
1995	\$1,256,062	\$1,372,774	\$150,866	\$2,779,702
1996	\$1,306,304	\$1,427,684	\$156,901	\$2,890,889
1997	\$1,358,557	\$1,484,792	\$163,177	\$2,006,526
1998	\$1,412,899	\$1,544,184	\$169,704	\$3,126,787
1999	\$1,469,415	\$1,605,951	\$176,492	\$3,251,858
2000	\$1,528,191	\$1,670,189	\$183,552	\$3,381,931
2001	\$1,589,319	\$1,736,997	\$190,894	\$3,517,210
2002	\$1,652,892	\$1,806,476	\$198,530	\$3,657,898
2003	\$1,719,007	\$1,878,736	\$206,471	\$3,804,214
2004	\$1,787,768	\$1,953,885	\$214,730	\$3,956,383
2005	\$1,859,278	\$2,032,040	\$223,319	\$4,114,637
2006	\$1,933,650	\$2,113,322	\$232,252	\$4,279,224
2007	\$2,010,996	\$2,197,855	\$241,542	\$4,450,393
2008	\$2,091,435	\$2,285,769	\$251,203	\$4,628,407
2009	\$2,175,093	\$2,377,200	\$261,252	\$4,813,545
2010	\$2,262,096	\$2,472,288	\$271,702	\$5,006,086
2011	\$2,352,580	\$2,571,180	\$282,569	\$5,206,329
2012	\$2,446,683	\$2,674,027	\$293,872	\$5,414,582
2013	\$2,544,551	\$2,780,988	\$305,627	\$5,631,166
2014	\$2,646,333	\$2,892,228	\$317,852	\$5,856,413
2015	\$2,751,186	\$3,007,917	\$330,566	\$6,089,669
2016	\$2,862,274	\$3,128,234	\$343,789	\$6,334,297
2017	\$2,976,765	\$3,253,363	\$357,541	\$6,587,669
2018	\$3,095,836	\$3,383,498	\$371,842	\$6,851,176
2019	\$3,219,669	\$3,518,837	\$386,716	\$7,125,222
2020	\$3,348,455	\$3,659,590	\$402,184	\$7,410,229

TABLE 6

WHITE HALL
PROJECTED DEDICATED REVENUE AND OTHER SOURCES

YEAR	MILLAGE	HIGHWAY	T	AVAILABLE
		TURNBACK	OTHER	FOR TRANS.
			İ	PROJECTS
				(5%)
1992	\$20,012	\$135,849	\$2,290	\$158,151
1993	\$20,812	\$141,283	\$2,382	\$164,477
1994	\$21,645	\$146,934	\$2,477	\$171,056
1995	\$22,510	\$152,813	\$2,576	\$177,890
1996	\$23,411	\$158,925	\$2,679	\$185,015
1997	\$24,347	\$165,282	\$2,786	\$192,415
1998	\$25,321	\$171,893	\$2,898	\$200,112
1999	\$26,334	\$178,769	\$3,013	\$208,116
2000	\$27,387	\$185,920	\$3,134	\$216,441
2001	\$28,483	\$193,356	\$3,259	\$225,098
2002	\$29,622	\$201,091	\$3,390	\$234,103
2003	\$30,808	\$209,135	\$3,525	\$243,468
2004	\$32,039	\$217,500	\$3,666	\$253,205
2005	\$33,321	\$226,200	\$3,813	\$263,334
2006	\$34,654	\$235,248	\$3,966	\$273,868
2007	\$36,039	\$244,658	\$4,124	\$284,821
2008	\$37,482	\$254,447	\$4,289	\$296,218
2009	\$38,980	\$264,622	\$4,461	\$308,063
2010	\$40,540	\$275,207	\$4,639	\$320,386
2011	\$42,162	\$286,215	\$4,825	\$333,202
2012	\$43,848	\$300,526	\$5,018	\$349,392
2013	\$45,602	\$312,547	\$5,219	\$363,368
2014	\$47,426	\$325,049	\$5,427	\$377,902
2015	\$49,323	\$338,051	\$5,644	\$393,018
2016	\$51,296	\$351,573	\$5,870	\$408,739
2017	\$53,347	\$365,636	\$6,105	\$425,088
2018	\$55,482	\$380,262	\$6,349	\$442,093
2019	\$57,701	\$395,473	\$6,603	\$459,777
2020	\$60,009	\$411,292	\$6,867	\$478,168

1994 - 2000 CAPITAL IMPROVEMENTS PROGRAM

DESCRIPTION	TYPE OF PROJECT	(Miles)	FEDERAL AMOUNT	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL	COMMENT
Oakwood Road, between Shannon Road and Sulphur Springs Road	Bridge Replacement		\$362,000	000'886\$	BR	Pine Bluff	Replace structurally deficient bridge
Hazel Street, between 6th Avenue & 17th Avenue	New Facility and Street Widening 2 - lane	0.8	\$	\$1,300,000	Local	Pine Bluff	Proposed facility will connect Hazel Street with U.S.Hwy. 79
Jefferson Parkway, between Ark. Hwy. 365 and St. Hwy. 658	New Facility 4 - Iane	9.0	\$704,000	\$176,000	STP - Local	Pine Bluff	This facility will provide direct access to the Industrial Park from U.S. Hwy 65 and U.S. Hwy 770
Ohio Street at Bayou Bartholomew	Bridge Replacement		\$424,000	\$106,000	BR	Jefferson County	Replace structurally deficient bridge
W. 13th Avenue, between Franklin and U.S. 65 Bypass	Jog Elimination	0.1	\$0	\$330,000	Local	Pine Bluff	Eliminates a jog at 13th Avenue and Oakwood Road which is adjacent to a Southern Byoass exit ramo
Harding Avenue, between Ohio Street and Main Street	Street Widening from 2 lanes to 4 lanes	0.8	\$1,520,000	\$80,000	STP - Local	Pine Bluff	Elimination of a traffic bottle-neck which connects two four lane roads. The City is in the process of obtaining r/w
Georgia Street, between 11th Avenue and 12th Avenue	New Facility 2 - Iane	0.1	\$64,000	\$16,000	STP. Local	Pine Bluff	This facility will provide for a continuous north-south route from U.S. 65 to Harding and will improve access to governmental offices and the Convention Center
Southern Bypass, between U.S. Hwy 65N & U.S. Hwy 65S	New Facility Freeway	11.6	\$24,800,000	\$6,200,000	NHS/STP	State	This project will provide a controlled access fraeway through the study area
U.S. Hwy 79 South at Nivens Creek	Bridge Replacement		\$880,000	\$220,000	BR, NHS/STP	State	Replaces structurally deficient bridge (Duel funded (65% BR. 35% NHS/STP)
Ark. Hwy 365, between Colonial Park & Ark. Hwy 266	Widening 5 - lanes	1.6	\$2,200,000	\$550,000	NHS/STP	State	This facility will provide better access to northwest Jefferson County, U.S. Army Arsenal, and NCTR
U.S. 65, between Hwy 425 and Study Area Boundery	Widening 4 - Ianes, divided	1.6	\$1,500,000	\$375,000	NHS/STP	State	Project cost pro-rated to reflect amount in Study Area (Job R20090)

YEARS 1994 - 2000, Cont.

DESCRIPTION	TYPE OF PROJECT	LENGTH (MHss)	FEDERAL AMOUNT	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL	COMMENT
Lock & Dam #4 Demonstration Project, between U.S. 65 and U.S. 79 west of Althelmer	New 2 - lane facility and bridge over lock and dam	9.2	\$12,320,000	\$3,080,000	Demon- stration	State	This facility will provide better access to the eastern portion of the study area and will serve as a bypass for U.S. 79
Ark. Hwy 54, between U.S. Hwy 79 and the city limits	Widening 5 - Ianes	1.3	\$1,200,000	\$300,000	NHS/STP	State	This project will provide better service to a growth corridor
Petty Road, between Shannon Rd. & Oakwood Rd.	Bridge Replacement		\$0	\$60,000	Local	Jefferson County	Replace structurally deficient bridge
Shannon Road, between Sulphur Springs Rd. & Petty Rd.	Bridge Replacement		0\$	\$30,000	Local	Jefferson County	Replace structurally deficient bridge
Spruce Street, between Hill Street and Oliver Drive	Reconstruction	0.6	80	\$400,000	Local	Pine Bluff	This project will imporve traffic flow in a neighborhood of UAPB
Camden Cutoff Road	Bridge Replacement		0\$	\$35,000	Local	Jefferson County	Replace structurally deficient bridge
U.S. Hwy 425, between U.S. Hwy. 65 and Study Area Boundary	Widening 4 - Lanes	4.0	\$4,800,000	\$1,200,000	NHS/STP	State	This project is in accordence with the State Transportation Capital Improvement Program
Pinebergen Rd., between Ark. Hwy 15 and Gibb-Anderson Rd	Reconstruction and Widening	1.0	\$0	\$160,000	Local	Jefferson County	This project will replace a facility that is in deteriorated condition
Gibb-Anderson Rd, between Pinebergen Rd & Grider Field	Reconstruction and Widening	2.5	\$0	\$300,000	Local	Jefferson County	This project will replace a facility that is in deteriorated condition
Princeton Pike	Bridge Replacement		\$0	\$105,000	Local	Jefferson County	Replace structurally deficient bridge
Gaddy-Koonce Road	Bridge Replacement		0\$	\$36,000	Local	Jefferson County	Replace structurally deficient bridge
Divoky Road	Bridge Replacement		0\$	\$35,000	Local	Jefferson County	Replace structurally deficient bridge
Hutchinson Street, between Jefferson Parkway and Industrial Drive South	Widening 4 - lanes	6.0	\$	\$320,000	State AIDC	Pine Bluff	Improve access to the Industrial Park
Jefferson Parkway	Bridge Replacement		\$0	\$160,000	Local	Jefferson County	Replace structurally deficient bridge
New Road Connection, S.H. 31, to S.H. 81	New facility	6.8	\$640,000	\$160,000	NHS/STP	State	New facility to connect two State Hwys.
TOTAL COSTS			\$51,404,000	\$17,191,000			

# 2001 - 2010 CAPITAL IMPROVEMENTS PROGRAM

DESCRIPTION	TYPE OF PROJECT	(Miles)	FEDERAL	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL	COMMENT
Caney Road, between Ark. Hwy 266 and Robin Street	New Facility	1.8	\$732,000	\$183,000	STP. Local	White Hall	This facility will provide a continuous north-south collector street; presently
Jefferson Parkway/McFadden Road, between Hutchinson Street and U.S. Highway 79	Widening 4 - Lanes	2.9	\$1,500,000	\$375,000	STP - Local	Jefferson County	This facility connects Ark. Hwy 365 with U.S. Hwy 79N
Miramar Street, between Hazel Street & Catalpa Street	Bridge Replacement		\$400,000	100,000	BR	Pine Bluff	Replace structurally deficient bridge
Port Connection, between Emmett Sanders & L&D Road	New Facility	0.9	\$2,000,000	\$600,000	STP - Local	Jefferson County	This facility will provide better intermodal connections
Oakwood Road/Hutchinson St. between Short 3rd & Barraque	New Facility Jog Elimination	0.3	\$372,000	\$93,000	STP - Local	Pine Bluff	Eliminating this jog will improva the only north-south facility located between the Southern bypass and U.S. Hwy 79S
W. Holland Street, between Ark. Hwy 365 & Ark. Hwy 266	Bridge Replacement	•	\$44,000	\$11,000	BB	White Hall	Replace a substandard bridge which was not designed to handle a 10-year flood of Caney Greek
W. 13th Avenue, between Taft Street and U.S. 65 Bypass	Widening	0.8	\$400,000	\$100,000	STP - Local	Pine Bluff	This designated collector is only 20 feet wide with no shoulders and is an important east-west route
U.S. Hwy 79S, between Watson Chapel High School and study boundary	Widening 4 - Ianes	6.2	\$8,000,000	\$2,000,000	NHS/STP	State	This is a major north-south corridor through the southwest portion of the study area, and is in accordance with the State Transportation Capital Improvement Program
Ark. Hwy 104, between U.S. Hwy 79 and Oakwood Road (8th Avenue)	Widening	1.6	\$1,600,000	\$400,000	NHS/STP	State	This facility provides access to the Dept. of Human Services and the Dept. of Correction
34th Avenue at Apple Street	Jog Elimination	0.08		\$100,000	Local	Pine Bluff	This project will provide for continuous traffic movements from Old Warren Rd79
Intersection of Union Avenue and U.S. Hwy 79	Intersection Realignment		0\$	\$250,000	Local	Pine Bluff	This project will provide for better east-west traffic movements from Old Warren Road to U.S. 79
Georgia Street, between 12th Avenue and Harding Ave	Reconstruction	0.1	\$160,000	\$40,000	STP . Local	Pine Bluff	This facility Improvements will provide better north-south access for adjoining neighborhoods, governments! agencies, and the Convention Center

YEARS 2001 - 2010, Cont.

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COMMENT	This project will improve the north-south traffic flow in the western portion of the	This project will improve the north-south	This project will improve a substandard	Collector street This is a major north-south corridor serving the southern portion of the	Study area This is a substandard facility which carries	Intermodal Connection	Replaces structurally deficient bridge	Replaces structurally deficient bridge	Replaces structurally deficient bridge	
GOVERNMENTAL	Pine Bluff	Pine Bluff	Pine Bluff	State	State	Jefferson County	Pine Bluff	Pine Bluff	Pine Bluff	
SOURCE	STP - Local	Local	Local	NHS/STP	NHS/STP	Local	HB.	HH HH	HB HB	
STATE/LOCAL AMOUNT	\$230,000	\$620,000	\$750,000	\$1,200,000	\$500,000	\$1,200,000	\$16,000	\$32,000	\$32,000	\$8 632 000
FEDERAL	\$920,000	0\$	\$0	\$4,800,000	\$2,000,000	0\$	\$64,000	\$128,000	\$128,000	\$23 248 000
LENGTH (Miles)	2.6	0.6	1.3	6.2	1.5	1.7	0.8	٠		
TYPE OF PROJECT	Reconstruction	Reconstruction	Reconstruction	Widening 4 - Ianes	Widening 5 - lanes	New Facility 2 - Lane	Bridge Replacement	Bridge Replacement	Bridge Replacement	
DESCRIPTION	Oakwood Road, between Sulphur Springs Road and U.S. Hwy 65B	Catalpa Street, between 28th Ave. and Old Warren Road	Georgia Street, between Harding Ave. & 34th Ave.	Ark. Hwy 15, between Bayou Bartholomew and the study eree boundary	U.S. Hwy 79, between U.S. 65 and Oliver Drive	Airport Connection Road, between Grider Field Airport and Lock & Dam Road #4	52nd Avenue, between Ohio Street and Main Street	34th Avenue, between Bay Street and Apple Street	11th Avenue, between Florida Street and Pennsylvania	TOTAL COSTS

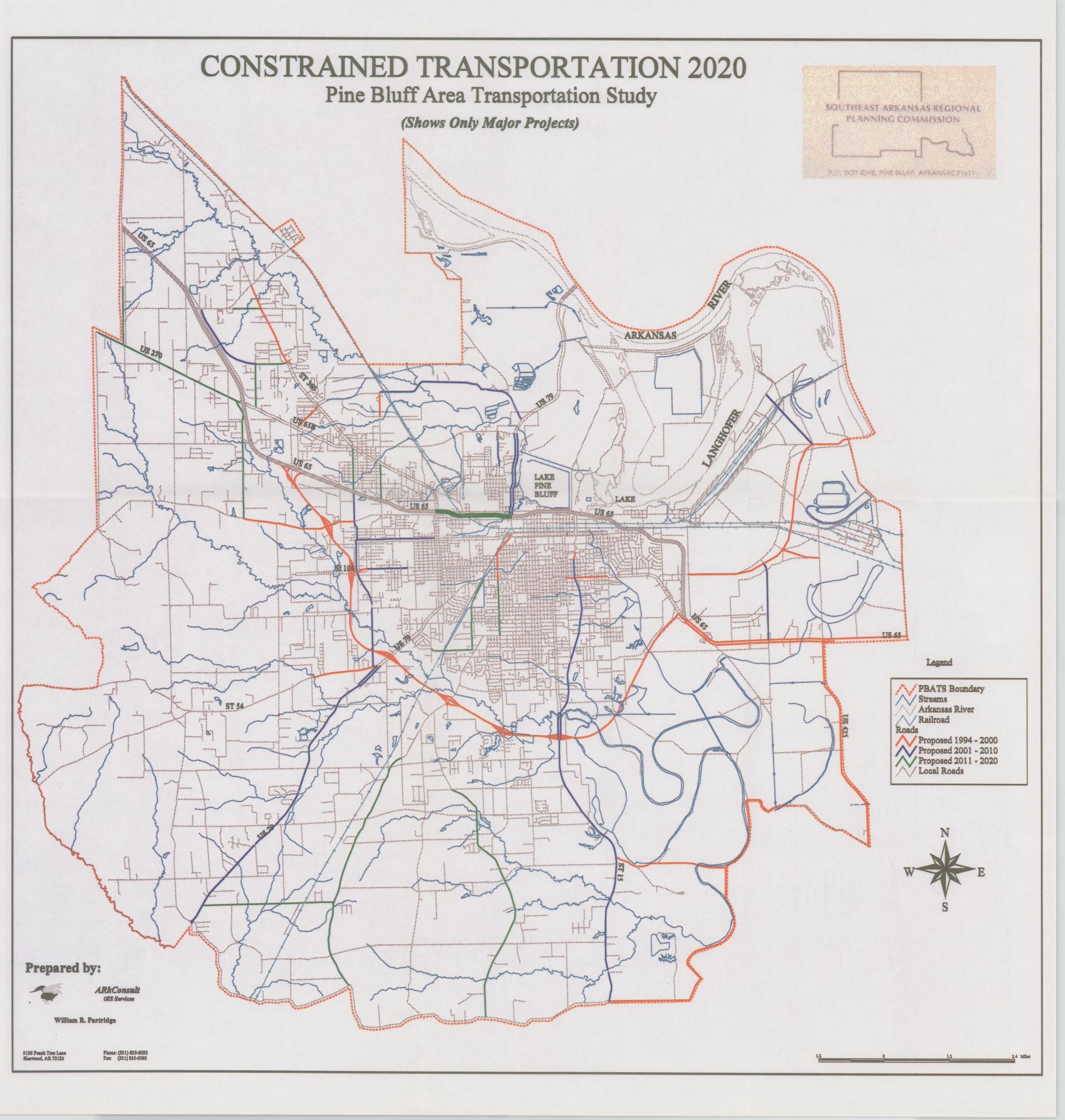
2011 - 2020 CAPITAL IMPROVEMENTS PROGRAM

DESCRIPTION	TYPE OF PROJECT	(Miles)	FEDERAL AMOUNT	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL	COMMENT
West end of the 16th/17th Avenue couplet	New facility	0.1	\$64,000	\$16,000	STP - Local	Pine Bluff	This project will complete the one-way couplet project started in the early 1980's
Claud Road, Between U.S. Hwy 270 and Princeton Fike	Widening and Bridge Replacement	2.4	\$800,000	\$200,000	BR, STP - Local	White Hall/ Jefferson County	Replace two substandard bridges and widen a 20-foot street located in a growth corridor
W. Holland Street, between Ark. Hwy 365 and Ark. Hwy 266	Reconstruction	0.6	\$264,000	\$66,000	STP - Local	White Hall	This facility is the shortest route to get from Ark. Hwy 365 to U.S. 65 and is heavily used
Hazel Street, between 17th Avenue and 31st Avenue	Widening 4 - lanes	1.0	\$1,040,000	\$260,000	STP - Local	Pine Bluff	This project will eliminate a traffic bottle- neck by providing for better north-south traffic movements
Catalpa Street, between Old Warren Road and 28th Ave	Widening 3 - Ianes	0.6	\$456,000	\$114,000	STP - Local	Pine Bluff	This project will improve access to an industrial area & eliminate traffic problems due to high volumes of truck trips
Georgia Street, between 34th Avenue and Main Street	Jog elimination and Widening	0.3	0\$	\$326,000	Local	Pine Bluff	This project will provide for a direct north- south facility in the eastern portion of the study area
U.S. Hwy 270, between U.S. 65 and Study Area	Widening 4 - Lanes	3.0	\$4,000,000	\$1,000,000	NHS/STP	State	This project is needed to improve traffic movement
White Hall Road/Robin Street Between U.S. 65B & U.S. 365	Reconstruction	1.4	\$672,000	\$168,000	STP - Local	White Hall	This project will improve the east-west and south-west traffic movements in the White Hall area
34th Avenue, between Old Warren Rd. end Apple St.	Reconstruction	9.0	\$0	\$360,000	Local	Pine Bluff	This project will provide better east-wast access to the central area of the City
Bryant Street, between U.S. 65B and U.S. 65	Reconstruction	9.0	\$400,000	\$100,000	STP - Local	Pine Bluff	This project will improve north-south traffic flow in the western portion of the study area
Hutchinson Street, between U.S. 668 and U.S. 66	Reconstruction	0.7	0\$	\$600,000	Local	Pine Bluff	This project will improve north-south traffic flow in the western portion of the study area
U.S. Hwy 65, between U.S. 79 South and U.S. 79 North	Widening 6 - lanes	1.3	\$16,000,000	\$4,000,000	NHS/STP	State	This project will relieve traffic congestion in the central core of the study area

YEARS 2011 - 2020, Cont.

DESCRIPTION	TYPE OF PROJECT	(Miles)	FEDERAL	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL	COMMENT
Ohio Street, betwen 20th Ave. and 24th Avenue	Bridge Replacement	•	\$40,000	\$10,000	BR	Pine Bluff	Replaces structurally deficient bridge
Park Road Bridge, over Black Dog Slough	Bridge Replacement		\$56,000	\$14,000	BR	Pine Bluff	Replaces structurally deficient bridge
Missouri Street, between 8th Avenue and 10th Avenue	Bridge Replacement	•	\$56,000	\$14,000	æ	Pine Bluff	Replaces structurally deficient bridge
TOTAL COSTS			\$23,848,000	\$23,848,000 \$7,148,000			

## MAP 7. CONSTRAINED TRANSPORTATION PLAN



ADDITIONAL TRANSPORTATION PLANNING ELEMENTS

#### TRANSIT SERVICE

Transit service plays an important role in providing a means of travel for those who have no other means and those who use transit as an alternative mode of transportation. The City of Pine Bluff has a rich history of transit service which began in the 1880's. In 1974, the City purchased the privately owned bus company, and since that time, has operated the bus service as a city department. In 1994, approximately 186,000 transit trips were taken.

Pine Bluff Transit (PBT) operates six fixed routes, and the peak hour bus fleet is seven. The operating schedule is from 6:00 a.m. to 6:30 p.m. Monday through Friday. PBT also operates a paratransit system for those persons who have disabilities. The service area for both types of services covers 80% of the City of Pine Bluff land area. The only area not within the service area is the Watson Chapel area. According to the Pine Bluff Transit Development Plan, transit service will be extended to this area in the later years of the twenty year planning period.

A number of transit plans have been prepared and are being implemented. The following is a list of those plans and a brief description of each.

- 1. Transit Development Plan (TDP). This plan indicates future expansion of services offered by PBT within a 20 year time period.
- 2. PBT Americans with Disabilities Plan. This document indicates the implementation steps PBT will take in providing transit services to those persons with disabilities.
- 3 . Rural Transit Plan. This document indicates the method of creating a rural transit service that would provide transit to White Hall, the fringe areas of the PBATS Study Areas, and Jefferson County.
- 4. Pine Bluff Area Coordination Study. This plan sets forth methods and alternatives in coordinating transit service within the PBATS Study Area. The transit services considered for coordination purposes are those offered by PBT and the various social service agencies that provide transportation services to their clients.

The following are the goals for transit services within the PBATS Study Area. These goals were obtained from the planning documents that have previously been adopted by PBATS and the Southeast Arkansas Regional Planning Commission.

GOAL 1. The transit system should seek to establish and maintain a level of service that meets all the expressed public transportation needs of all citizens to the extent that it is feasible. These expressed needs include persons who have no other means of transportation, minorities, and persons with disabilities as well as the general public. These needs also include service to all major commercial and employment centers.

- GOAL 2. The transit system should seek to establish and maintain a quality of service that makes using public transportation an attractive alternative to the private automobile. Determinants of service quality include system reliability, access to the system, trip duration, user costs, comfort, safety, and information availability.
- GOAL 3. The transit operation and its service should be managed in such a manner that benefits from public and private funding are maximized by offering a variety of transit services. For example, PBT will encourage businesses to purchase transit passes for their employees.
- GOAL 4. The process of transit planning should be adequately maintained. Transit planning should be an integral part of the developmental process of the public transportation system. It should be well integrated with the transportation planning process including the TIP process. Objectives relating to the planning process should address issues such as surveillance, problem identification, programming of service and management improvements, development of new types of services to meet specific needs, and the establishment of an effective citizen participation process in transit planning.
- GOAL 5. To strive for a balanced transportation system which protects, enhances and accomplishes the environmental objectives.
- GOAL 6. To coordinate public transit service with those social service agencies and other entities that provide transit services. Coordination of transit services should be implemented where it maximizes the utilization of transit services and at the same time reduces the cost of providing the services.
- GOAL 7. Alternative methods of providing transit services shall be considered at all stages of the planning and implementation processes for fixed route bus service.

The Transit Development Plan Update for Pine Bluff Transit included recommendations addressing three issues: expansion of existing fixed routes, coordination of services, and alternative transit services. The following is a brief description of each of these issues:

• Fixed Route Service. The plan calls for a partial realignment and expansion of the fixed route system. The expansion of the service would be based on two concepts: ridership demand and providing service to those who have no other means of transportation. Table 8 shows the bus operation structure for the short range and long range periods.

In the short range period, the TDP calls for the addition of two buses to be placed in service on the existing fixed routes in order to reduce the headway (time between buses) from one hour to thirty minutes for all routes. The long range period of the TDP calls for the addition

of eight buses to be placed in service on four existing routes and on four routes to be created. The proposed route structure will remain a radial system with its hub located in the central business district (CBD). The addition of four routes will increase the number of buses converging at a central transfer site in the CBD.

- Coordination of Services. The plan calls for the coordination of all transit services offered by PBT and the social service organizations within the Study Area. A transit organizational structure should be developed and implemented to direct the implementation of the transit services. The actual transit operations and scheduling should be done by an independent transit board which has representatives from all transit providers. Once this has been accomplished, the next step calls for the creation of a Regional Transit Authority which would be responsible for transit services and where all the entities involved would contract with the Authority to provide transit service.
- Alternative Transit Service. This issue is directly related to fixed route service. The plan states that alternative services should be considered as opposed to fixed route service. The three types of services that are recommended for evaluation are the dial-a-ride service, route deviation service, and point-to-point deviation service.

During the twenty year planning period, PBT will have to replace buses within its bus fleet for both fixed route service and ADA (Americans with Disabilities Act) paratransit service and construct a central transfer facility. Past commitments to support public transit, projected local financial resources of the City, and assistance from the Federal government has enabled Pine Bluff to construct an administrative/maintenance facility and upgrade its bus fleet and services. In order to continue the transit program, the City will have to continue to rely on the Federal government for UMTA Section 9 Operating and Capital Assistance to maintain the transit program. Through this program, the Federal government provides eighty percent (80%) of the funds needed to purchase capital equipment and reimburses Pine Bluff Transit with fifty percent (50%) of its net operating loss. With continued Federal assistance, the City of Pine Bluff should be able to continue to upgrade transit service in accordance with the Transit Development Plan and implement those projects identified in the Capital Improvements Program shown on page 72.

In addition to PBT, other transit services aided by the Federal government are also in operation in Pine Bluff and Jefferson County. In 1993, the Southeast Arkansas Area Agency on Aging began an UMTA Section 18 Rural Transit Program which services a ten county area including Jefferson County. The Section 18 Program provides Federal funding assistance to rural public transit agencies in the same way the UMTA Section 9 Program does for the urban public transit agencies. The Area Agency's administrative/ maintenance facility is located in the City of Pine Bluff, and some of the Rural Transit Program's routes bisect and have route termini within the City. At this time, neither the Cities of Pine Bluff and White Hall nor Jefferson County have committed any funds for Section 18 rural transit service. For this reason, the Capital Improvements Program does not list any Section 18 projects. The Capital Improvements Program will be updated should any of these local governments make financial commitments toward the Section 18 rural program.

Another transit program that has provided Federal assistance in the Pine Bluff-Jefferson County area is the UMTA Section 16B-2 Program. This Program assists public and private non-profit organizations in purchasing capital equipment for transit services that are provided to the elderly and handicapped. Through this program, the Federal government provides 80% of the funds needed to purchase capital equipment such as buses; the recipient agency must provide the 20% matching funds as well as provide transportation services to their target populations. A review of past years' annual elements of the Transportation Improvement Program for the Pine Bluff study area has shown that an average of one 16B-2 transit vehicle is requested on a yearly basis. If this Federal assistance continues, twenty five vehicles should be available to public and private non-profit organizations over the next twenty-five years for the purpose of providing transportation services to the elderly and handicapped or other eligible clientele. These vehicles have been listed in the Capital Improvements Program.

The following Short and Long Range Bus Operation Structure and Public Transportation Capital Improvement Program were developed based on the assumption that the City of Pine Bluff and the Federal government will continue to fund the public transit program at the same levels that they have in the past. As stated on page 70, the Federal Transit Administration (FTA) provides eighty percent (80%) of the funds needed to purchase capital equipment and reimburses PBT fifty percent (50%) of its net operating loss. The City of Pine Bluff has been funding the transit program through its general fund since it took over the operation of the transit system in the early 1970's. The City general funding sources consist of money received through property taxes, sales taxes, and various other sources. It does not appear that there will be a lack of funds in the future for the City to continue its support of the transit system, however, it is difficult to project what actions the Federal government will take concerning its funding levels for local transit projects over the next twenty five year period. If the Federal government continues to fund the transit program at the level it has in the past, PBT will be able to implement the transit services stated in this Plan.

# TABLE 8 SHORT AND LONG RANGE BUS OPERATION STRUCTURE

## SHORT RANGE 1994 - 2000

	NO. OF BUSES	ROUTE MILES	ROUND TRIPS	TOTAL DAILY <u>MILEAGE</u>	HEAD- WAY	OPER. TIME	DAILY BUS HOURS
University - S. Main Hazel - W. 2ND Cherry - W. 2nd Harding - Pullen Dollarway - 13th	2 1 1 2 3	12.5 13.7 13.7 11.8 21.8	24 12 12 24 <u>24</u>	300.0 164.4 164.4 283.2 523.2	30 30 30 30 30	12 12 12 12 12	24 12 12 24 36
TOTALS	9	73.5		1435.2	-	-	108

## LONG RANGE 2001 - 2020

					*			
				TOTAL			DAILY	
	No. of	ROUTE	ROUND	DAILY	HEAD-	OPER.	Bus	
	BUSES	<b>MILES</b>	TRIPS	<b>MILEAGE</b>	WAY	TIME	<b>Hours</b>	
		-						
University - S. Main	2	12.5	24	300.0	30	12	24	
Hazel - W. 2nd	1	13.7	12	164.4	30	12	12	
Cherry - W. 2nd	1	13.7	12	164.4	30	12	12	
Harding - Pullen	2	11.8	24	283.2	30	. 12	24	
Dollarway - 13th	3	21.8	24	523.2	30	12	36	
28th - Mall	2	13.4	24	323.2	30	12	24	
Watson Chapel -								
Belmont	2	15.5	24	396.0	30	12	24	
Princeton Pike	1	13.4	12	160.8	60	12	12	
White Hall	1	14.2	12	170.4	60	12	12	
S. Pine Bluff - 28th	1	16.6	12	199.2	60	12	12	
Port	<u>1</u>	12.0	<u>12</u>	144.0	<u>60</u>	<u>12</u>	<u>12</u>	
	_	(			-	-		
TOTALS	17	129.7	-	2827.2	-	-	204	

# PUBLIC TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM

		1994 -	2000	
DESCRIPTION	FEDERAL	LOCAL	GOVERNMENTAL UNIT	COMMENT
6 Fixed Route Buses and Related Accessories	\$816,000	\$240,000	Pine Bluff	Bus Replacement & Peak Hour Expansion
5 ADA Buses and Related Accessories	\$168,000	\$42,000	Pine Bluff	New Buses to Meet ADA Requirements
2 Supervisor Vehicles	\$12,000	\$3,000	Pine Bluff	Replacements
1 Maintenance Vehicle	\$20,000	\$5,000	Pine Bluff	Replacement
Maintenance & Administration	\$28,000	\$7,000	Pine Bluff	Replacement and New
Capital Equipment	\$32,000	\$8,000	Pine Bluff	New (engines,
Bus Capital Equipment	\$12,000	\$3,000		transmissions, etc.)
5-16B-2 Vehicles	\$100,000	\$25,000	Public and Private Non-Profit Agencies	Vans and Buses

		2000 -	2010	
DESCRIPTION	FEDERAL	LOCAL	GOVERNMENTAL UNIT	COMMENT
10 Fixed Route Buses and Related Accessories	\$1,360,000	\$340,000	Pine Bluff	Bus Replacement and Route Expansion
11 ADA Buses and Related Accessories	\$369,600	\$92,400	Pine Bluff	Bus Replacements and New Services
3 Supervisor Vehicles	\$24,000	\$6,000	Pine Bluff	Replacements
2 Maintenance Vehicles	\$40,000	\$10,000	Pine Bluff	Replacements
Maintenance & Administration	\$40,000	\$10,000	Pine Bluff	Replacement and New
Capital Equipment Bus Capital Equipment	\$24,000	\$6,000	Pine Bluff	New (engines, transmissions, etc.)
10-16B-2 Vehicles	\$200,000	\$50,000	Public and Private Non-Profit Agencies	New Vans and Buses

		2011 -	2020	
DESCRIPTION	FEDERAL	LOCAL	GOVERNMENTAL UNIT	COMMENT
18 Fixed Route Buses and Related Accessories	\$2,448,000	\$612,000	Pine Bluff	Bus Replacement and Route Expansion
16 ADA Buses and Related Accessories	\$537,600	\$134,400	Pine Bluff	Bus Replacements and New Services
3 Supervisor Vehicles	\$36,000	\$9,000	Pine Bluff	Replacements
1 Maintenance Vehicle	\$20,000	\$5,000	Pine Bluff	Replacement
Maintenance & Administration	\$40,000	\$10,000	Pine Bluff	Replacement and New
Capital Equipment Bus Capital Equipment	\$24,000	\$6,000	Pine Bluff	New (engines, transmissions, etc.)
10-16B-2 Vehicles	\$200,000	\$50,000	Public and Private Non-Profit Agencies	New Vans and Buses

# INTERMODAL TRANSPORTATION FACILITIES

Intermodal management planning is an important aspect of the Pine Bluff area transportation system, particularly in how it affects the economic well being of the study area. The objective of intermodal management planning is to improve and implement a transportation system that protects the public sector while ensuring that urban goods movement and the transportation modes used to move these goods remain competitive in the free market system. An integrated, intermodal transportation system that provides for the transporting of goods and people through a quick, high quality, cost efficient means will protect the public welfare and safety in a competitive atmosphere. Accordingly, a comprehensive and coordinated intermodal management plan will improve the decisions made by the private and public transportation providers located or operating in the Pine Bluff study area.

The Pine Bluff Area Transportation Study area is unique in that it is one of the smallest urbanized areas required by the 1962 Federal Highway Act to have an established transportation planning process while serving as one of the major intermodal transportation hubs for goods movement in the south central region of the United States. The following are descriptions of the different transportation modes that have facilities and provide services in the Pine Bluff study area.

## **AIRPORTS**

Grider Field is a municipal airport established in 1941 as a U.S. Army Flight Training School. The airport property consists of 740 acres; 200 acres have been developed for airport facilities and related accessory land uses. Grider Field has a 6,000 by 150-foot runway that can accommodate up to 110,000-pound duel tandem airplanes. Currently, the airport provides for private sector commercial/industrial activities such as aviation sales and service, agricultural operations, a flight school, freight haulers, aircraft maintenance, and car rental services. Scheduled passenger air service is not available, but private charter flights are made daily from the airport by local businesses, national manufacturing firms, and the U.S. Army Pine Bluff Arsenal. In 1993, approximately 45,000 flight operations took place.

The Airport Capital Improvement Plan includes a proposal to develop part of its undeveloped land as an airport industrial park designed to attract industrial uses requiring access to both airways and highways. To adequately integrate this concept, the Capital Improvement Plan calls for the purchase of a 215-acre site north of the airport. This purchase will provide the airport with 11,200 feet of highway frontage along U. S. Highway 65, a major arterial road as classified by the PBATS Transportation Plan. The airport currently has access to U. S. Highway 65 from Grider Field-Ladd Road, a minor arterial road.

#### RECOMMENDATIONS:

- 1. The development of the Airport Industrial Park should be coordinated not only with the transportation links serving it but also the public water and sewer systems that are needed to serve the proposed industrial land uses. Another issue that should be addressed concerns the airport properly located in the 100-year floodplain. The majority of the airport property is located in the floodplain, and a floodplain management study should be conducted to determine how to address the 100-year floodplain in terms of developing an industrial park. Prior to the development of detailed implementation plans of the airport's capital improvements plan, a comprehensive neighborhood plan should be developed to address these and other issues.
- 2. Along Grider Field Road and U.S. Highway 65 in the vicinity of the airport, existing land uses are a mixture of residential, commercial, and industrial land uses. The local government needs to develop a method either to regulate or to provide for incentives to ensure that proper land uses are located in the airport vicinity. Such land uses are those that depend on direct accessibility to highway and airway access and also those that are intermodal related.
- 3. The implementation of the Airport Industrial Park should be staged to coordinate with the implementation of the proposed north-south collector road that will link the airport with the proposed Highway 79 Bypass.

# RIVER PORT/RAILROADS

# PINE BLUFF-JEFFERSON COUNTY PORT AUTHORITY

The Port Authority was created in 1961, and the port facility and industrial park opened river barge service in 1970. The present harbor was constructed as part of the McClellan-Kerr Arkansas River navigation System and is the only slackwater harbor along the Arkansas River. The Port Authority leases the twenty-acre public terminal to a private firm which operates the facility for general public use. Commodities handled by the public port last year included: barges, bulgar, buoys, calcium aluminate, caustic soda, concrete blocks, construction materials, corn, cottonseed hulls, diesel fuel, fabricated steel, flash ash, lentils, machinery and equipment, milo, paper, phosphate, potash, rice, soybeans, steel coils, timbers, vermiculite, wheat, wire coils, and wire rods. In 1992 a total of 914,546 tons of materials valued at approximately \$140,448,285 moved through the public port.

In 1985, the U.S. Army Corps of Engineers published a study titled "Pine Bluff Harbor Expansion Feasibility Report." This report indicates what port facilities will be needed in the Pine Bluff Urban Area within the next fifty years. It also addresses economic, social, and environmental impacts and calls for the expansion of the port facility north of Ste. Marie park along Lake Langhoffer in two phases. Phase One of the plan calls for expanding the port facility to meet the Urban Area navigation needs through the year 2010; Phase Two expansion will meet the Urban Area needs until 2040.

#### RAILROADS

The Study Area is served by two Class I line haul railroads, the Union Pacific and the Southern Pacific Railroads. The primary function of these railroads is transcontinental movement of freight; the secondary function is the service provided to their respective clients in the area.

The Southern Pacific track enters the Study Area from the northeast across the Arkansas River to the gravity yard (switching yard) located east of the Central Business District (CBD) and south of Lake Langhoffer. From the yard, the track extends westward through the CBD on 4th Avenue to the vicinity of Plum Street where it then proceeds in a southwesterly direction and exits the Study Area. The Union Pacific track enters the Study Area from the northwest directly along the Pine Bluff Arsenal boundary to the vicinity of Plum Street. From Plum Street, the Union Pacific track is the same track the Southern Pacific Railroad uses to proceed to the switching yard. From the yard, the track extends to the east and exits the Study Area. Together, the two railroads operate approximately fifteen trains in and through Pine Bluff each day. The number of train operations is dependent on the national and local economy and thus fluctuates.

There are approximately eighty railroad crossings in the Study Area of which sixteen are protected with flashing lights and gates. There are four grade-separated crossings; two are railroad overpasses (Plum Street, 28th Avenue, and Convention Center Drive), and the other is a road undercrossing at Pitts Street. There are no grade-separated crossings projected in the

twenty-year constrained transportation plan. All three railroad overpasses have sufficient clearance for doublestacked containers on flat bed cars.

The Southern Pacific Railroad gravity "hump" yard is located east of the CBD and south of the Port. It operates twenty-four hours a day every day of the year. The yard provides classification switching of rail cars and contains support terminal facilities including locomotive and car inspection and repair shop. Not only are long-haul freight trains made up at the yard, local trains that serve local businesses and industries also operate from the yard.

The Missouri Pacific Railroad yard is located east of Bain Street in the vicinity of Paper Mill Road. The trains that it operates within and through the Study Area are local trains that run from Little Rock to Pine Bluff and are responsible for car set-outs and pick-ups at the Pine Bluff yard. Local trains serving local businesses and industries also operate from the yard.

#### **RECOMMENDATIONS:**

- Construct a bridge and road over the railroad to connect Emmett Sanders Road with the road
  facility being constructed over Lock and Dam 4. The facility under construction will connect
  U.S. Highway 65 with U.S. Highway 79 on the northeast side of the Arkansas River. The
  completion of both these projects would provide better access to the Port and railroad
  facilities and would reduce the intermodal freight good movements from entering more
  densely populated areas. Both road projects are listed in the financially constrained
  transportation plan.
- 2. Maintenance and upgrading of roads: An asphalt overlay maintenance program should be developed that will address the maintenance problems associated with the roads providing access to the Port and railroad facilities. Michigan Street between U.S. Highway 65 and 2nd Avenue needs to be upgraded in terms of providing for a smoother traveling surface.
- 3. The possibility of creating an intermodal authority that would link the Port, railroads, and trucking services should be studied. Pine Bluff is unique in that the Port and railroad facilities are so closely located and there is available land area to expand both facilities. From a local perspective, an intermodal authority and facility could boost the economy. Two primary issues should be studied, potential uses/costs associated with implementation and the operation and construction of such a facility. In a market-oriented transportation program, the service must be accepted and used by shoppers and receivers, and the quality and cost of services of each mode of transportation must be competitive.

### TRUCK MOVEMENTS

Truck movements are the key elements of the overall intermodal transportation process. The extensive road network gives truck trips a distinctive advantage in choosing the routes taken to connect origin and destination locations, and they have a tremendous effect on all segments of the economic, social, and environmental characteristics of a community. For instance, truck movements have made it possible for some manufacturers that once depended on rail service to locate far from rail lines. This in turn impacts the entire community through truck trips occurring over roads not designed for trucks, trucks traveling through residential neighborhoods, etc. It is also understood that without truck movements in and through our communities, we could not enjoy the conveniences we have today.

In order to better understand truck movements and the resulting roles and impacts in the overall intermodal transportation process, certain knowledge must be obtained. This information includes such things as trip origins and destinations (external-external, external-internal, and various types of internal-internal), type and travel characteristics of the commodities transported, and trip frequency. Currently, only a limited amount of information is available regarding these elements. This plan addresses the general locations of truck trip generation and the transportation network linking these locations to other types of transportation facilities and to important geographic sites in the Study Area.

Within the Study Area, there are ten general freight trucking companies, three truck brokerage companies, five trucking companies that primarily haul household moving freight, and a number of independent trucking companies of which most haul material resources (logs and gravel) and agricultural commodities, poultry, and livestock. The majority of these trucking companies are dispersed throughout the Study Area, however, the household freight companies are concentrated along West 6th Avenue between Hazel Street and Blake Street.

Truck trip generation location areas are the Jefferson Industrial Park area, Pine Bluff Port Industrial Park/railroad yards, and the West 6th Avenue area. Following is a brief description of each area.

<u>Jefferson Industrial Park Area:</u> This general area is adjacent to Jefferson Parkway and McFadden Road which is located between Dollarway Road (U.S. Highway 365) and U.S. Highway 79 north. The Industrial Park itself contains approximately 750 acres. In and near the Park area are fifteen business that generate a number of semi-truck trips; there are also three other manufacturers located in this area that generate a number of semi-truck trips. The majority of land in the area has not been developed.

<u>Pine Bluff Port and Rail Road Yards</u>: This area is adjacent to Port Road and Emmett Sanders Road and lies east of Michigan Street. There are approximately twenty-five businesses and industries in the area that generate a number of semi-truck trips.

West 6th Avenue Area: This is the area adjacent to 6th Avenue that is located between Plum Street and Blake Street (U. S. Highway 79). There are approximately twenty businesses which generate semi-truck trips including the household movers offices/warehouse facilities.

Also located within the Study Area are two smaller industrial parks and a number of businesses such as wholesalers and distributors, grocery stores, etc. each of which generate truck trips.

The map shown on page 81 identifies the routes within the Study Area that have been designated as truck routes. While these routes provide adequate access to the commercial and industrial land uses within the area, pavement conditions, drainage, turning radii at intersections, lane widths, signage, and local regulations and policies are also important aspects that affect the efficient movement of semi-trucks along the truck routes. The majority of transportation construction projects listed on the twenty-five year Transportation Improvement Program plan are located on truck routes, and it is important that when designing these projects, careful consideration is given to the design standards for semi-truck movement. The following recommendations are related to truck movement policy and minor road improvement projects that will aid in improving the efficiency of truck and other vehicle movement within the Study Area. These policies and projects should be implemented in conjunction with the twenty-five year Transportation Improvement Program.

POLICIES:

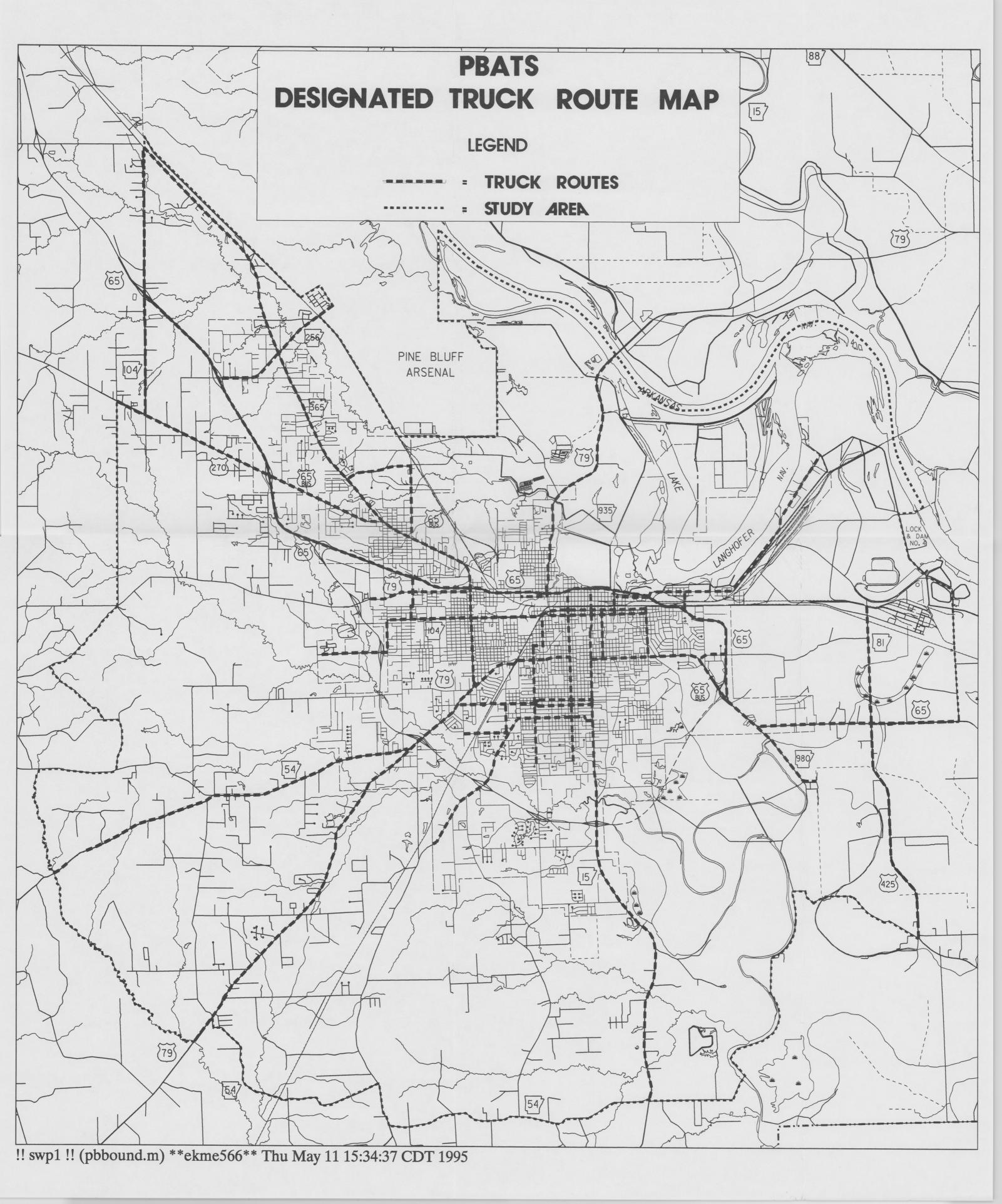
REVIEW EXISTING LOCAL ORDINANCES AND POLICIES THAT AFFECT TRUCK MOVEMENTS TO ASSURE THAT MOVEMENT OF TRAFFIC CAN BE BETTER MANAGED.

- 1. <u>Zoning Ordinance</u>. Conduct a review of the local jurisdictions' Ordinances to determine that adequate provisions exist which address adequate on-site truck loading and unloading. This should also be reviewed when considering zoning changes.
- 2. <u>Curb-Cut Ordinance and Policy</u>: Conduct a review of the local jurisdictions' Ordinances and policies concerning curb-cuts. It is essential that the driveway entrances used by semi-trucks and other large vehicles to access a given facility are wide enough to accommodate turning movements from the street without disrupting on-street traffic.
- 3. <u>Street Construction Standards</u>: Conduct a review of the local jurisdictions' Subdivision Regulations and policies concerning construction standards of streets. Road construction standards for collector and arterial streets as well as local streets that service commercial and industrial land uses need to be designed to sustain the weight of semi-trucks.

- 4. Truck Route Ordinance Text: Conduct a review of the local jurisdictions' existing truck route ordinance and ordinance texts. The City of Pine Bluff adopted a Truck Route Ordinance in the mid 1960's, however, the text has not been revised since that time. The City of White Hall and Jefferson County do not currently have a truck route ordinance and should consider adopting one. Areas that should be addressed are: designation of routes, determination of route criteria, time of on-street deliveries, on-street parking duration and limitations, special purpose route designations, and posting of maintenance bond, weight limits, and enforcement.
- 5. <u>Truck Route Ordinance Map</u>: The City of White Hall and Jefferson County should consider adopting a Truck Route Map. The City of Pine Bluff has an adopted Truck Route Map and has amended it from time to time to reflect changes that have occurred within the City.
- PROJECTS: THE FOLLOWING PROJECTS CAN BE CATEGORIZED AS EITHER ROUTINE MAINTENANCE PROJECTS, LOW COST ROADWAY IMPROVEMENTS PROJECTS, OR TRAFFIC FLOW MANAGEMENT PROJECTS. THESE PROJECTS ARE LOCATED ON EXISTING ROADS DESIGNATED AS A TRUCK ROUTES, OTHER COLLECTOR AND ARTERIAL STREETS NOT DESIGNATED AS TRUCK ROUTES, AND LOCAL STREETS LOCATED IN COMMERCIAL AND INDUSTRIAL AREAS.
  - 1. <u>Port Road, from U.S. Highway 65 to Emmett Sanders Road</u>: This road is the access road to the Pine Bluff Port Industrial Park. The road is rutted from the truck traffic and needs to be overlayed.
  - 2. <u>Michigan Street, from U.S. Highway 65 to Port Road:</u> This road is not on the truck route but is heavily used by trucks to service the adjacent industries and the Pine Bluff Port Industrial Park. The road needs to be overlayed, the turning radius at the intersection of 2nd Avenue needs to be increased, the slope of the road leading to the intersection of U. S. Highway 65 needs to be decreased, and "No Parking" signs need to be installed on the street.
  - 3. Walnut Street/Olive Street, between U. S. Highway 65 and Harding Avenue: The City of Pine Bluff added this street to the Truck Route when the street jog at 11th Avenue was eliminated. In order for it to function as a truck route, "No Parking" Signs need to be installed on Olive Street from Harding A venue to 6th Avenue. The turning radii of the intersections of 6th and 8th Avenues need to be increased.
  - 4. <u>Cherry Street. from 46th Avenue to U.S. Highway 65</u>: This route provides access to the central portion of the City. Turning radii at the intersections of U.S. Highway 65 and 6th, 8th, 27th, and 28th Avenues need to be increased, and on-street parking where it is currently allowed needs to be eliminated.

- 5. <u>Cypress Street, from 5th Avenue to 13th Avenue</u>: This street should be removed from the truck route when the construction of the hazel Street extension occurs.
- 6. <u>Hazel Street. from 13th Avenue to Ridgway Road</u>: This street provides a north-south route to the central portion of Pine Bluff. The turning radii at the intersections of 13th, 17th, and 28th Avenues need to be increased. A central turning lane needs to be installed along Hazel Street between 28th Avenue and 31st Avenue.
- 7. Catalpa Street, between 28th Avenue and 34th Avenue/34th Avenue,
  between Catalpa Street and Apple Street/Apple Street between 28th Avenue
  and 34th Avenue: These streets are part of the truck route in order to serve
  the industrial land uses in the area. The streets were designed as local
  streets and were not originally intended to be used by trucks. All three
  streets need to be widened; Apple Street and Catalpa Street need to be
  overlayed. The intersections of Apple Street and Catalpa Street with 28th
  Avenue, and 34th Avenue with Catalpa Street and Apple Street need to have
  the turning radii increase.
- 8. <u>6th Avenue, from Blake Street (U.S. Highway 79) to the Arkansas Correctional Facilities</u>: The intersection of Bryant Street and Hutchinson Street need to have the turning radii increased.
- 9. <u>2nd Avenue, from Cherry Street to the Tyson Plant</u>: The intersection of 2nd Avenue and Cherry Street turning radius needs to be increased.
- 10. <u>U.S. Highway 65, from East U.S. Highway 65B to West U.S. Highway 65B</u>: The turning radii at the intersections of Cherry Street and Walnut Street need to be increased.
- 11. <u>Miscellaneous Recommendations</u>: a) A signage survey needs to be conducted to determine what type of directional signs need to be installed indicating truck routes, major industrial and commercial areas, and governmental, school and other community facilities that generate truck trips. b) Rubber railroad grade crossings need to be installed on the following roads that cross the railroad tracks: Michigan, Main, Walnut, Cherry, Miramar, and 34th.

# MAP 8. TRUCK ROUTES



#### PEDESTRIAN MOVEMENTS

The PBATS Study Area is a low density urban area that is vehicular oriented and where few people use pedestrian trips to carry out their daily activities. The major emphasis of pedestrian planning in the PBATS area should focus on the type of pedestrian trips that normally begin and end from the end of a vehicular trip. Nevertheless, an overall pedestrian circulation network should be considered in the planning process, particularly those identified under 'New Subdivisions' and 'Arterial and Collector Streets' below. With the increased awareness of environmental issues and the trend toward neighborhood revitalization, there is a need to consider such long range pedestrian plans that link neighborhoods with other neighborhoods and commercial developments. Local pedestrian circulation plans for key areas such as the CBD and the University of Arkansas at Pine Bluff should also be studied.

However, in order to implement any type of pedestrian plan, the public must be convinced that there is a real and perceived need for sidewalk projects, something that has been lacking in the Study Area over the past several years. The last subdivision constructed in Pine Bluff that had sidewalks installed was Belmont Subdivision which was constructed in the 1960's. In the City of White Hall, there are no sidewalks on any of the streets although a recently approved subdivision does contain a natural pedestrian-way that is separated from vehicular traffic.

Because of the lack of pedestrian-ways and sidewalks within the Study Area, the initial plan consists of identifying transportation-management-system types of projects that are directed toward improving safety of children walking to and from school. The following is a brief description of the sidewalk network and recommendations of where sidewalks should be installed near schools.

- Pine Bluff High School 11th Avenue: The school is in the central city area which has an extensive sidewalk network within the neighborhoods. No new sidewalk facilities are needed.
- Jack Robey Junior High School 4101 South Olive Street: The school has sidewalks on a part of its property along 38th Avenue and Main Street. Sidewalks should be installed on Olive Street in front of the school north to 33rd Avenue, and on Main Street from 38th Avenue to 34th Avenue. There is not an extensive network of local streets in the vicinity of the school; however, the existing streets all lack sidewalks.
- Southeast Junior High School 20th Avenue and Ohio Street: The school has a sidewalk running along Ohio Street from Harding Avenue to 38th Avenue. A sidewalk should be installed on Ohio Street between Harding Avenue and 8th Avenue. Pedestrian crossing improvements should be installed at the intersection of Harding Avenue and Ohio Street. There is not an extensive network of local streets in the vicinity of the school; however, the existing streets all lack sidewalks.

- Belair Elementary School 1301 Commerce Road: The school has a sidewalk on its property adjacent to Commerce road; the only portion missing is along Commerce Road between the school driveway entrances. All the streets in the vicinity have sidewalks.
- Broadmoor Elementary School 1800 East 11th Avenue: This school is located in the Broadmoor Subdivision which has an extensive sidewalk network. The only place where no sidewalks are located is on school property adjacent to the public streets.
- Carver Elementary School 300 N. Linden Street: The school has sidewalks on its property adjacent to Linden Street. The sidewalk runs south to Pullen Street which has sidewalks on both sides. Linden Street is the only street that is adjacent to the school site.
- First Ward Elementary School 1300 East 5th Avenue: This school is in the central city area having a number of sidewalks in the vicinity of the school. However, a sidewalk needs to be installed on Ohio Street between 5th and 6th Avenues and on 5th Avenue from Ohio Street to Pennsylvania Street.
- Forrest Park Elementary School 34th Avenue and Hickory Street: The school does not have any sidewalks along its property adjacent to the streets, nor are there any sidewalks in the adjoining neighborhoods. Sidewalks should be installed on the school property on 34th Avenue between Cherry Street and Hazel Street, on 33rd Avenue between Linden Street and Hazel Street, and on Hickory Street between 34th Avenue and 37th Avenue.
- Greenville Elementary School 2501 West 10th Avenue: The school is located in a
  neighborhood that does not have any sidewalks, but sidewalks are located on the streets
  adjacent to the school on Fir Street between 8th and 13th Avenues and on 10th Avenue from
  Fir Street to Hazel Street.
- Indiana Street Elementary School 1519 Indiana Street: There are sidewalks along the two streets adjacent to the school. Along Indiana Street the sidewalk is located between Harding Avenue and 13th Avenue. Along 15th Avenue the sidewalk is located between Indian Street and Ohio Street. All the other neighborhood streets in the area are narrow streets with ditches on both sides that do not have sidewalks.
- Lakeside Elementary School 609 West 15th Avenue: The school is in the central city area which has an extensive sidewalk network in the neighborhoods near the school. No new sidewalk facilities are needed.
- Oak Park Elementary School 3010 South Orange Street: There are no sidewalks on the school property adjacent to the streets, nor are there any sidewalks on any of the streets within the adjoining neighborhoods. Most of the streets in the neighborhood are 18 feet or less in pavement and shoulders. A site study should to be conducted to determine what type of sidewalk system should be installed to access the school.

- Sam Taylor Elementary School 1415 West 13th Avenue: The school has sidewalks on West 13th Avenue and on Ash Street. Sidewalks need to be installed along 12th Avenue from the school east to Hickory Street and on Plum and Locust Streets from 13th Avenue to 17th Avenue.
- 34th Avenue Elementary School 34th Avenue and Missouri Street: The school has a sidewalk on Missouri Street the length of the school property. There is also a sidewalk on the south side of 34th Avenue between the school and Main Street. A sidewalk should be installed on Missouri Street from 32nd Avenue to 31st Avenue to provide access to the students who live north of the school.
- Dollarway High School 1900 Dollarway Road: The school has sidewalks on all adjoining streets. The neighborhood located southeast of the school has an extensive sidewalk network, whereas the neighborhood located southwest of the school does not have any sidewalks. A sidewalk should be installed along Dollarway Road from the school to the intersection of Williams Street and Dollarway Road.
- Dollarway Junior High School/Townsend Elementary School 2601 Fluker Street: Fluker Street is a major east-west transportation link. The Elementary School is located on the south side of Fluker Street, and the Junior High School is located on the north side of the street. The students are required to cross the street for various activities. There is a school crossing flasher sign at the pedestrian crossing. Sidewalks are located on both sides of the school property adjacent to the street. The sidewalks are located from the Townsend Park main entrance road to U. S. Highway 79, and on the south side of Fluker Street. The streets in the neighborhood east of the school do not have curb and gutter or sidewalks. A traffic engineering study should be conducted to determine if the existing school street crossing is located properly and meets safety standards for pedestrian crossings.
- James Matthews Elementary School 4501 Dollarway Road: There are no sidewalks on the school property adjacent to Dollarway Road. A sidewalk should be installed along this street from the High School to Williams Street. Pedestrian school crossing improvements should also be installed on Dollarway Road. There is a sidewalk located across from the school on Cottonwood Street. This sidewalk is substandard in width and in need of repair. It should be extended north to the Cottonwood Housing Development.
- Pinecrest Elementary School 5601 Calhoun Street: There are no sidewalks on the school
  property adjacent to the street nor are there any sidewalks within the neighborhood. The
  majority of the streets in the neighborhood are 18 feet or less in width and have no shoulders.
  A study should to be conducted to determine what type of sidewalk system should be installed
  to access the school.

- White Hall High School 700 Bull Dog Drive: The school site is designed as a self-contained facility in a natural setting. The school is located approximately 1,000 feet from the only public street serving it. The location of the facility is not conducive to pedestrian access, particularly in light of the sparsely populated neighborhood. A sidewalk should be installed along Bulldog Drive (a private street) from its entrance at Holland Street to the school.
- White Hall Junior High School 8106 Dollarway Road: There are no sidewalks on the school property adjacent to the streets, nor are there any sidewalks on any of the streets within the neighborhood. Sidewalks should be installed along Dollarway Road. A traffic engineering study should be conducted to determine what type of sidewalk system should be installed along the other streets adjacent to the school.
- Gandy School 400 Gandy Avenue: There are no sidewalks on the school property adjacent to the streets nor are there any sidewalks on any of the streets in the neighborhood. Sidewalks should be installed along the school property adjacent to Gandy Avenue and along Taylor Street from the school site to Bessie Drive.
- Moody Elementary School 700 Moody Drive: The school site is a self contained facility
  which is located 1,500 feet from Moody Drive, the only public road serving the school. The
  location of the facility is not conducive to pedestrian access from the adjacent, sparsely
  populated neighborhood. A sidewalk should be installed along Moody Drive from Holland
  Street to the school.
- Watson Chapel Senior and Junior High School 3900 and 4100 Camden Road: There are no sidewalks on the school property adjacent to the two highways nor on any of the streets within the neighborhood. Sidewalks should be installed along State Highway 54 from the school site to East Lake Drive and along Oakwood Road from the school to near the U. S. Highway 65 overpass. A traffic engineering study should be conducted to determine what other pedestrian improvements need to be implemented to meet safety standards for pedestrians.
- Coleman Elementary School 4600 West 13th Avenue: The school site has facilities on both the north and south sides of 13th Avenue and on the east and west side of Redbud Street. Redbud Street is barricaded during school hours. Thirteenth Avenue is a major east-west transportation link. The students are required to cross 13th Avenue for various activities. There is a school crossing flasher sign at the pedestrian crossing. Sidewalks are located on both sides of the school property adjacent to 13th Avenue and continue east to the intersection of Blake Street. The streets within the neighborhood are narrow and have no curb, gutter, sidewalks, or shoulders. A traffic engineering study needs to be conducted to determine if any sidewalks need to be installed on the neighborhood streets for the purpose of accessing the school.

- Edgewood Elementary School 4100 West 32nd Avenue: There are no sidewalks on the school property adjacent to the streets. There is a pedestrian walkway connecting Taylor Drive with the school. A sidewalk should be installed in front of the school adjacent to 32nd Avenue. A traffic engineering study should be conducted to determine if additional sidewalks should be constructed along adjacent streets for the purpose of accessing the school.
- L.L. Owen Elementary School 3605 Oakwood Road: There are no sidewalks along Oakwood Road which is the only street adjacent to school property. The recommendations are similar to those for Watson Chapel High School. Sidewalks need to be constructed on Arkansas Highway 54 and on Oakwood from Highway 54 to a point near the U. S. Highway overpass.
- Sulphur Springs Elementary School 9210 Sulphur Springs Road: This school is a rural school on the edge of the Study Area. It is a sparsely populated area. At this time, a pedestrian walkway system should not be constructed to access the school.

Other foci of pedestrian movement planning in the PBATS Study Area should be directed towards the following areas:

- Central Business District/Urban Core Area. The existing pedestrian walkways should be
  maintained. Emphasis should be placed on making the pedestrian ways accessible to persons
  with disabilities. Installing amenities that give the pedestrian a perception of well-being and
  safety and that will promote a willingness to use the walkways should be an objective.
- New Commercial and Multifamily Residential Developments. A pedestrian walkway
  system should be designed and incorporated into new commercial developments and new
  multi-family construction. Emphasis should be placed on separating pedestrian movements
  from vehicular movements and providing pedestrian walkways to the developments'
  perimeters.
- New Subdivisions. Pedestrian walkways should be required in all subdivisions receiving approval from local entities. The walkway systems should be designed so as to reduce pedestrian-vehicular conflict where possible and to foster effective pedestrian movement that links different land uses as would a vehicular transportation network.
- Arterial and Collector Streets. Pedestrian walkways should be installed along those arterial and collector streets where there is evidence of pedestrian movement.
- Pedestrian T.S.M. Projects. Pedestrian movement projects that are safety oriented and which can be implemented at a low capital cost should be installed. Such improvements include pavement crossing markings, signing, curb cuts, etc.

#### **BICYCLE PLANNING**

In the past there has been very little demand by the public for the establishment of road and off-road bikeways in the PBATS Study Area. At the same time, local governments have ignored the needs of bicycle riders, perpetuating the lack of bicycle use as an alternative transportation mode. However, in areas that are already densely developed as is much of Pine Bluff, implementing a bikeway plan is difficult, particularly when one considers that developed areas contain the destinations of most travel trips. Since safety is of the utmost importance in terms of bikeway design, minimizing potential conflicts between bicycles and automobiles by physically separating the two is the optimum method of providing a bikeway. But densely developed areas rarely contain enough available land to provide for separate bike paths, and even if land were available, the costs of land purchase and bike path construction would be prohibitive. Therefore, in the PBATS Study Area, the only viable alternative to separate bike paths is to confine bikeways to the existing street system through a program of signing and bike lane striping. Such a program alerts motorists that bicycles are more prevalent on signed and striped streets and assists in making bicycle movements safer and more predictable.

The bicycle plan prepared by PBATS consists of a bicycle transportation network that resembles the major street network. This network is designed to be relatively direct so that it will be more attractive to those riders using the network for non-recreational trips, and it also provides for as much continuous movement as possible. Since bike riders must comply to the same traffic regulations as does a motorist, bikeways containing continuous disruptions such as stop signs at every block and street jogs discourage use of the system. Therefore, major roads rather than local streets have been recommended as primary bike routes under the bicycle plan. The proposed bike route system can be implemented by properly signing the routes, and in cases where the existing pavement is wide enough for both automobile and bicycle lanes, installing designated bike lane pavement markings. The map on page 89 shows the proposed bicycle network.

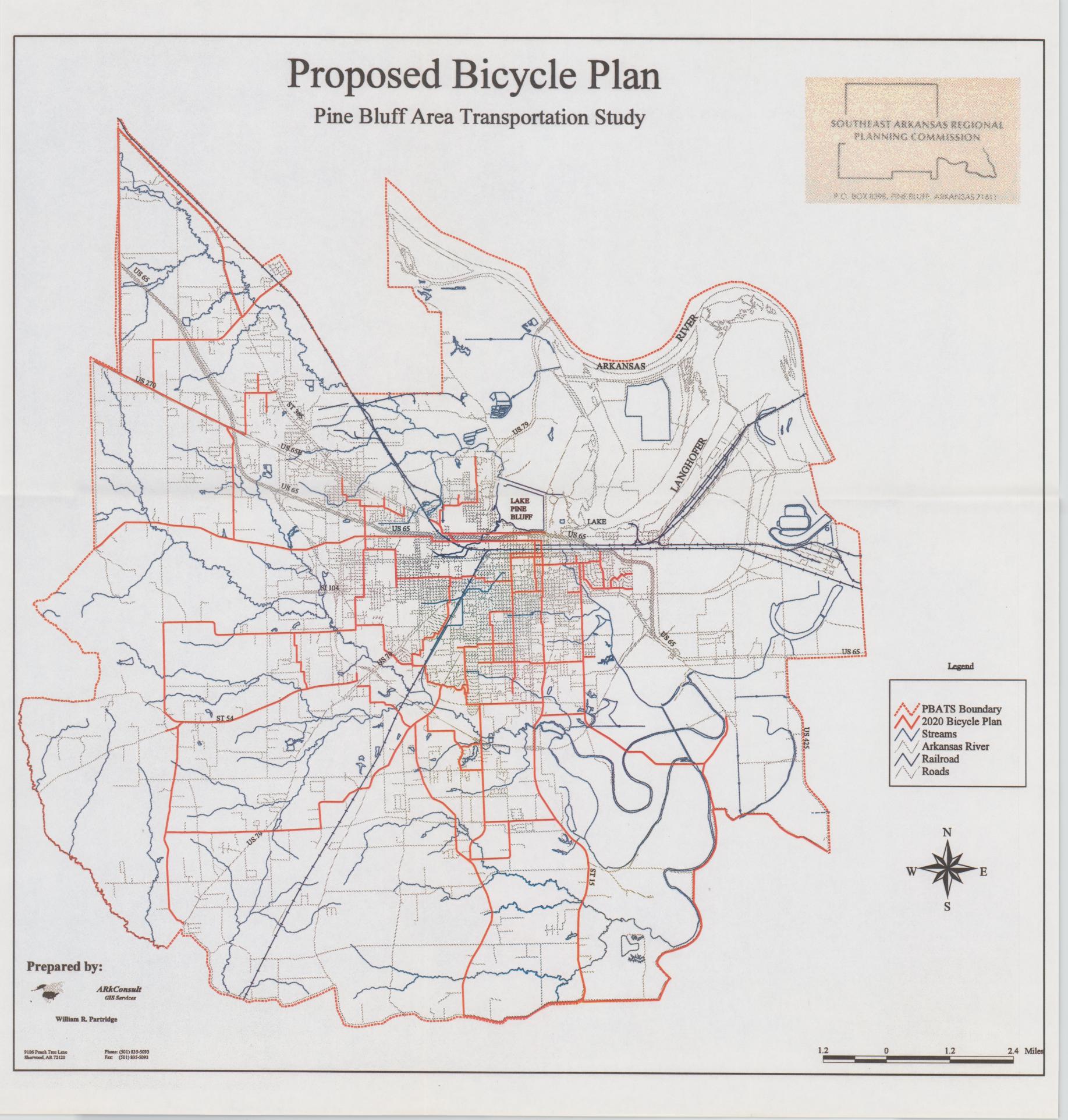
The following recommendations should also be given consideration when new development occurs:

- When constructing or reconstructing arterial streets, the inclusion of bikeways along the route should be considered.
- Local entities should be encouraged to modify their subdivision regulations to provide for a bicycle circulation network that will connect various types of land uses.
- Encourage major activity centers that generate a large number of trips to install bicycle parking areas and bicycle racks.
- Encourage local entities to implement a bicycle registration fee program and allocate fees collected being allocated to bikeway improvements.

 Encourage local entities to implement a bicycle safety and road use training and education program designed to teach elementary school children how to abide by the rules governing safe bicycle riding.

In addition, local entities should research using abandoned railroad rights-of-way, utility rights-of-way/corridors, and drainage rights-of-way/corridors for bikeways.

# MAP 9. PROPOSED BICYCLE NETWORK



#### TRANSPORTATION ENHANCEMENT PROGRAM

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 contains provisions for improving the surface transportation system through development of transportation enhancements. Transportation enhancements are defined in the ISTEA as follows:

- 1. Bicycle and pedestrian facilities
- 2. Acquisition of scenic easements and historic sites
- 3. Scenic or historic highway programs
- 4. Landscaping or other scenic beautification
- 5. Historic preservation
- 6. Rehabilitation and operation of historic transportation facilities
- 7. Preservation of abandoned railway corridors (including their conversion to bicycle and pedestrian facilities
- 8. Control and removal of outdoor advertising
- 9. Archeological planning and research
- 10. Mitigation of water pollution due to highway runoff above and beyond normal environmental mitigation

The Arkansas Transportation Enhancement Program (ATEP) will enable the Arkansas State Highway and Transportation Department (AHTD) to make a portion of Arkansas' enhancement funding available to city, county, and other state government agencies. ATEP funding will be based on a formula with a maximum federal share of 80% and a minimum local share of 20%. The AHTD estimates it will receive approximately \$3.2 million each year through 1997 for statewide enhancement projects.

ATEP projects will be divided into three broad categories encompassing the ten items mentioned in the ISTEA: historic projects, scenic and environmental projects, and bicycle and pedestrian projects. While no specific dollar amount will be set aside for any specific category, the AHTD has set a goal of 30% of available enhancement funds for projects submitted by other jurisdictions and other state agencies.

Applicants for ATEP grant funding must be official governmental bodies (city or county government or state agencies). Requests for ATEP grant funding for projects within urbanized areas greater than 50,000 population must be submitted through the appropriate MPO. In Jefferson County, ATEP requests must be submitted through SARPC. The project must clearly demonstrate that it will serve one or more of the ten identified purposes or functions included in the definition of transportation enhancement activities as stated on the previous page. The applicant must demonstrate that the project is financially feasible, that it has the resources and capabilities to complete the project, and that it has a plan for maintenance of the new or improved facility. The applicant must certify that it will provide the required matching funds equal to at least twenty percent of the project's total cost.

The Transportation Enhancement Program is one option that cities and counties can use to provide for pedestrian and/or bikeway projects. Most times, budget constraints limit cities and counties to providing maintenance on existing streets and implementing a few new street projects that are necessary to improve access and traffic flow of automobiles and trucks. Pedestrian and bicycle ways may not even be considered in light of more pressing street needs. Pedestrian or bicycle projects that are for recreational or transportation purposes can be applied for under the enhancement program. However, if an applicant wishes to apply for pedestrian or bicycle projects to be located on or in close proximity to roadway right-of-way, the major purpose or function of the project must be for transportation purposes, and that recreational or scenic aspects comprise only an incidental or secondary purpose of a temporary nature.

# MANAGEMENT SYSTEM

#### MANAGEMENT SYSTEM

Monitoring the existing transportation system is a vital function of the planning process. A transportation management system which evaluates the existing transportation infrastructure and transit system is an essential element not only in establishing a maintenance program but also in selecting projects for inclusion in the transportation improvement program. In accordance with the U. S. Department of Transportation regulations, management systems must be developed and included in the planning process. The development of the management systems will be a joint venture undertaken by the Arkansas Highway and Transportation Department, local jurisdictions, and PBATS. Brief descriptions of these management systems are as follows:

- <u>Pavement Management.</u> This system consists of a process to analyze and summarize pavement information for use in selecting and implementing cost-effective pavement construction rehabilitation and maintenance programs.
- Bridge Management. This system consists of analyzing and summarizing bridge conditions to be used in selecting and implementing cost-effective bridge replacement, rehabilitation, and maintenance programs.
- Highway Safety Management. This system's goal is to reduce all transportation accidents. A
  major objective is to consider safety aspects in the earliest stages of the planning process.
  Another major objective is to identify, analyze, and develop counter-measures for high
  accident rate locations and categorical-type accidents.
- <u>Traffic Congestion Management</u>. This system provides information on transportation system performance and analyzes and summarizes alternatives methods to reduce congestion.
- <u>Public Transportation Management</u>. This system consists of a process to analyze and summarize information for selecting and implementing cost-effective means of providing transit service.
- <u>Intermodal Management</u>. This system was addressed in the section titled "Intermodal Transportation Facilities beginning on page 73 of this document.

The Arkansas Highway and Transportation Department is taking the lead role in developing the methodology and the evaluation procedures for the pavement and bridge management systems since development and implementation of these two systems require the use of highly sophisticated equipment. Following is a more in-depth discussion of the process of developing and implementing the highway safety, traffic congestion, and public transportation management systems which will be conducted by PBATS.

#### SAFETY MANAGEMENT SYSTEM

During the planning period, the Metropolitan Planning Organization (MPO) (in the PBATS Study Area, the Southeast Arkansas Regional Planning Commission (SARPC) serves as the MPO), with the assistance of local governmental units and the AHTD will utilize various safety data for the purpose of identifying safety management problem areas for all modes of transportation. The objective is to reduce the number of accidents by improving safety at all stages of the transportation system, i.e., from the design of the facility, its actual use, and maintenance. The MPO will assist local governments in the process of evaluating locations with high accident rates and locations that are potentially hazardous in order to develop solutions to improve safety features of said locations. These solutions may be minor transportation management projects such as restriping while others might be costly and require significant changes to a specific transportation link. All recommended changes will comply with adopted State and Federal safety and design standards. In addition, the MPO and the local governments will work with and coordinate the safety program with other broad-based safety programs.

#### CONGESTION MANAGEMENT SYSTEM

During the planning period, the MPO, with the assistance of local governmental units and AHTD, will utilize various congestion management monitoring methods to identify and recommend solutions to congested corridors. Such methods will also include utilizing the expertise of local technical personal as well as monitoring public involvement and public comments.

Performance standards will be established to measure the level of congestion that is occurring on the transportation network. These standards will be based on a variety of collectable data such as travel time, delay time, turning movements, traffic signalization data, and traffic accident data. The Congestion Management System will be designed to be a continuous system. Through this process, transportation projects will be recommended which may range from minor transportation management projects such as restriping to recommending major changes to the transportation system that would involve amending the Transportation Plan.

#### PUBLIC TRANSPORTATION MANAGEMENT SYSTEM

During the planning period, the MPO, with the assistance of the local public transit provider and other transportation providers, will monitor the transportation services provided to the public and the cost of providing these services. The objectives are to 1) increase the public transportation ridership, 2) encourage coordination between the various transportation providers, and 3) provide transit service through the most cost efficient method. An examination of the transit system will be conducted in 1995 to identify what changes can be made in the existing transit service that would improve the efficiency of the operation.

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