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March 11, 2002

Rick Gregory

Rick Gregory, City Planner
City of Lebanon
200 Castle Heights Avenue North
Lebanon, TN 37087

RE: C.J.'s Incorporated, et al. vs. City of Lebanon, et al.
USDC, Middle District of Tennessee, Case No. 3:99-0566

Dear Rick:

Enclosed please find you notebook containing the General Development Plan for the city of Lebanon which is dated March 1984. Thank you for your assistance in this matter.

Very truly yours,

MANIER & HEROD

Mary

Mary W. Carter
Paralegal

Enclosure

MWC/mwc
6269.42999

216520

GENERAL DEVELOPMENT PLAN

LEBANON, TENNESSEE

MARCH 1984

A REPORT TO THE

LEBANON MUNICIPAL-REGIONAL PLANNING COMMISSION

PREPARED BY

JOHN COLEMAN HAYES AND ASSOCIATES, INC.
ENGINEERS, ARCHITECTS AND PLANNERS

LAND USE AND COMMUNITY FACILITIES
PLANNING ASSISTANCE BY
LEBANON-WILSON COUNTY PLANNING OFFICE

Sam Edwards, Planning Director
Rick Gregory, Planner
Jamie Creswell, Secretary
Howard Steverson, Draftsman

MARCH 1984

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INTRODUCTION

The employment and population forecasts included as a part of this General Development Plan indicate that the Lebanon Urban Area is on the threshold of a period of sustained growth. The findings of the plan do not predict revolutionary growth, but steady growth which will place continious pressures upon local government in the area.

Lebanon's increasing population will require adequate utilities, police and fire protection, parks and recreation areas, schools, a convenient transportation network, and a range of other publicly supplied facilities and services. Since the quality of environment is a principal factor attracting growth, the ways in which these facilities and services are provided will be of crucial importance in determining the desirability of Lebanon as a place to live. If Lebanon is allowed to experience deterioration, the growth rate will be significantly slowed.

The General Plan contained in this document is an important element of the planning process, since it identifies the directions in which the Community will be heading during the next several years. It can be used to guide the activities of the Chief Executive, Legislature, City Departments, public institutions, and private individuals.

The plan does not presume to take over the responsibilities of the School Board, Recreation Board, Public Works Department, or any other established agency. Instead, it is designed to give the public as well as private sectors a basis for using constructively the interdependencies which exist between the physical elements of the Community with the best practicable view of the future development of the area.

The City of Lebanon has had an active planning program for a number of years. Major elements of the basis of this program, the General Plan, include a study of the population and economy; a plan for land use, transportation, and community facilities; and a public improvements program and capital budget. These plan elements were developed by the Lebanon Municipal Regional Planning Commission during the late 1960's and early 1970's. Since that time, the City has experienced substantial social and economic change resulting in increased community needs and alterations to the physical growth pattern. Such changes necessitated this revision and up-dating of the Community's long-range plan for physical development.

Essentially, the General Plan is divided into three sections--research and analysis, plan formation, and plan effectuation. The first section, research and analysis, includes the collection of relevant information concerning the community; the evaluation of this information and its relation to planning; and the forecasting of employment, population, and land use. The second section includes an enumeration of critical assumptions affecting the future development

of the Community; the establishment of objectives, standards, planning concepts, and policies; and the physical elements of the plan itself, including land use, transportation, housing, and public facilities. The final section sets forth measures for implementing the plan.

CHAPTER I

BACKGROUND FOR PLANNING

THE ECONOMY

HISTORICAL DEVELOPMENT OF THE ECONOMY

Knowledge of the major economic activities which provided a basis for the settlement of Lebanon and how the City's economy has evolved is most helpful in understanding the present and possible future economic structure of the community. Several major stages of economic development can be identified on the basis of differing characteristics of the leading activities:

Prior to 1900 -- Processing of Local Raw Materials -- The earliest urban economic activities -- paper, cotton, wool, flour, and lumber manufacturing -- were generally small, locally-owned operations whose markets were probably not very extensive. Most of these activities are still carried on.

These activities emerged from a strong agricultural base. Almost from the beginning of Wilson County and Lebanon history, the area has been known as one of the state's leading agricultural centers. Livestock and dairying have generally received special emphasis, but diversified crop production has made a significant contribution to the local economy. In the early 1800's Lebanon was noted as a center of horse breeding and racing, and later as a major stagecoach center. These activities served as stimulants to early economic growth.

1900-1950: Processing of Local and Nonlocal Raw Materials in Locally-Owned Firms, Utilizing Low to Medium Skilled Labor -- A major addition to the manufacturing base occurred in 1908 when the Lebanon Woolen Mills was established by local interests. The woolen mills represented Lebanon's first large, modern industry. In addition, the nonlocal markets and sources of raw materials for the operation linked the local area with other areas. Local supplies of low to medium skilled labor appear to have been a major factor in establishment of the mill.

The year 1908 also saw emergence of a number of small, locally-owned enterprises -- a cooperage factory, a canning plant, an overall factory, and a new feed mill -- together with a large lumber manufacturer from Alabama. Lebanon trade and service functions were also firmly established with the doubling of the central business district in 1908.

Local economic activities at this time consisted primarily of the woolen mills, lumber and wood products, livestock and poultry feed production, dairy products, and flour milling. The manufacture of apparel goods made up only a small part of urban employment at this time, but it was expanded considerably with the location of the

Lebanon Garment Company in 1936. These activities remained the principal industries until after World War II.

As late as 1949, the Lebanon industrial base consisted of two large industries and numerous smaller, nonmechanized firms. These firms were raw material processors oriented to large supplies of low to medium skilled labor and, for the most part, could be classified as "Traditional Southern" industries.

After 1950: Processing of Raw, Semi-finished, and Finished Materials in Branch Plants of Large National and International Firms, Utilizing Low to Highly Skilled Labor -- The most significant changes in the local industrial sector have occurred since 1950. The growing community of manufacturers in Lebanon which in 1950 included only three (3) industries employing as many as 100 persons and a scattering of smaller plants, nearly all home owned, by 1957 included 18 industries with a total employment of over 1,500 workers. Major additions to the industrial base during this period included Texas Boot Manufacturing Company, Lux Time Division of Robert Shaw Controls, Hartmann Luggage Company, and Precision Rubber Products. These plants alone now employ over 2,500 workers which represents nearly one-half of the manufacturing employment in Wilson County.

By 1957, the manufacturing sector had a number of industries employing 100 workers or more, and it had begun to diversify functionally. Manufacturing employment was no longer concentrated in a handful of firms, nor were industrial activities confined to the manufacture of textiles, apparel, flour milling, and lumber and wood products. The new firms were not limited to "Traditional Southern" processors of raw materials, but were mainly fabricators of semi-finished goods (manufacturers of fabricated metals, precision instruments, and rubber products). Moreover, the plants represented major branches of nonlocal firms with extensive multi-state markets, giving Lebanon a wide market area for a greater proportion of its products than before 1950.

Industrial trends begun in the 1950's have carried through the 1960's and 1970's. Increasing momentum and further functional diversification were stimulated in the 1960's by the addition of such employers as the Ross Gear Division of TRW, Lebanon Aluminum, Bradley Candy, Rock City Box Sales, Custom Packaging, Custom Speciality, Fortune Plastics and Midwesco. These firms increased urban employment by a sizeable number of workers, and today account for over 1600 industrial jobs in the community.

While several smaller firms located in Lebanon during the early 1970's, including Steve's Sash Company, the bulk of the additions to the local industrial base during this period were through expansions of existing industries. The major employer added during the decade came with the opening of Toshiba - America, Incorporated in 1978 -- a manufacturer of televisions, stereos and microwave ovens which today employs over 650 skilled workers.

Although ample supplies of low to higher skilled labor in the Lebanon area were a major factor in the location of new firms since 1950, low cost electrical power and good industrial sites were equally important considerations. The latter factor, good industrial sites, offered a special attraction to new industry with the development of a city-owned industrial subdivision in 1957. This was a tract of over 300 acres improved with adequate utilities, streets, and rail facilities. Other improved sites have been developed and offered by the City since that time.

Another major change influencing industrial development in the Lebanon Area since the early 1960's has been the deconcentration of industry from Metropolitan Nashville (Davidson County) into outlying counties. Although the manufacturing base in Lebanon had developed largely independent of Nashville, this movement contributed substantially to the further development of Lebanon's industrial base through the 1960's and 1970's. Major contributing factors to this industrial deconcentration included good interstate highway access to outlying areas, ample supplies of increasingly higher skilled labor, lower taxes and less expensive land with necessary services and utilities.

Lebanon's pattern of economic development reflects heavy dependence on manufacturing activity as the basis for urban settlement. The pattern through the more than 30 years since 1950 reveals a sustained progression toward more varied and complex manufacturing, a trend indicative of the transition from an agrarian to an increasingly advanced industrial economy which has been underway throughout Tennessee and much of the South since World War II. The newer, larger industries which have located in Lebanon in the last three (3) decades are an indication that the local area, like Nashville and other cities, has increasingly become linked to an urban economy involving the interchange of products throughout an area much larger than the local urban area or county.

Subsequent paragraphs attempt to recognize this linkage by examining the Lebanon and Wilson County economy in a multi-county or regional context.

THE COUNTY'S POSITION IN THE REGION

A realistic view of the local economy must consider it as part of a larger regional economy. The regional view in this section involves a comparison of economic development in Wilson County and the Mid-Cumberland Region in terms of trends in population, income, commerce, and employment.

Population

A brief analysis of trends in population is helpful in gauging the direction of economic activity. Changes occurring not only in total population, but in the urban and rural segments often accompany

ILLUSTRATION 1

MID-CUMBERLAND REGION OF TENNESSEE

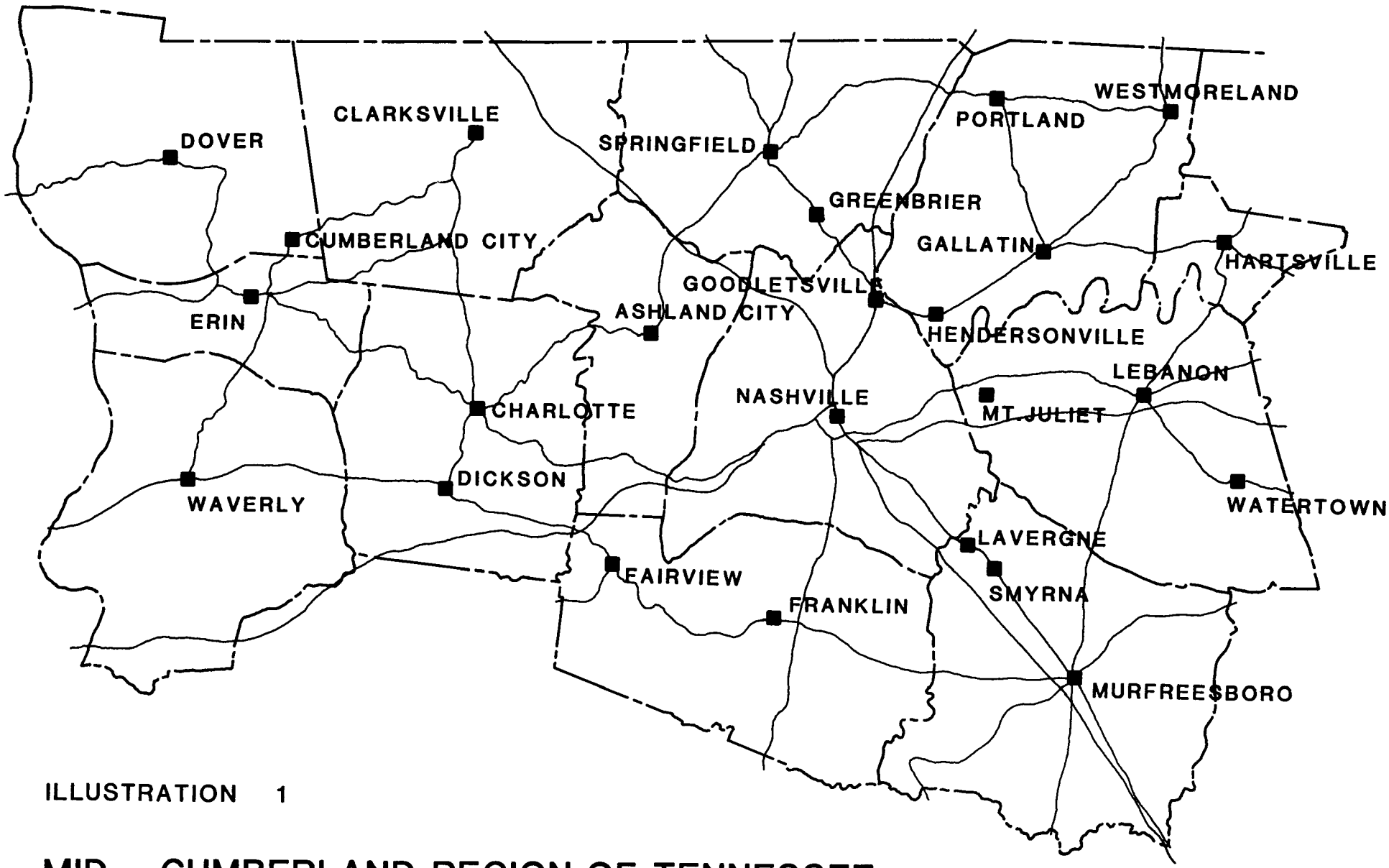


ILLUSTRATION 1

MID - CUMBERLAND REGION OF TENNESSEE

NORTH

SCALE: 1'' = 8 MI.

changes in the character of the economy. Table I shows total and urban population of counties in the Mid-Cumberland Region in 1940, 1970 and 1980.

As might be expected in a region focused on a major urban center, total population increased substantially between 1940 and 1980. The bulk of population growth between 1940 and 1970 occurred in and at the fringe of the larger urban centers, with many outlying counties losing rural population in numbers commensurate with urban gains. While urban population by 1970 had increased substantially over 1940 levels in outlying counties, all except Montgomery, Rutherford and Sumner were still less than one-half urbanized, and all except these same three counties had smaller shares of regional population.

The 1980 census figures, however, indicate that the regional distribution has reversed its centralizing direction -- a trend that became evident in the late 1960's. With the exception of the region's smallest, fringe area counties, outlying counties have increased their shares of the region's population since 1970, while the portion in Davidson County has decreased. Moreover, every county by 1980 had experienced an increase in total population over 1970 levels, suggesting that urban gains now exceed rural losses in the outlying counties. Together these trends indicate net expansion of the region at a much faster rate in the outlying counties than in Metropolitan Nashville - Davidson County. As indicated in Table I, only Davidson County and the smallest, more remote counties of the region grew at a rate of less than 20 percent between 1970 and 1980, while the other outlying counties grew at rates ranging from 27 to 68 percent.

Wilson County was among the 10 counties in the region to experience a net increase in population between 1940 and 1970. The increase, however, was moderate and somewhat below the higher regional average resulting from large gains in Davidson, Montgomery, Rutherford and Sumner Counties. Between 1970 and 1980, Wilson County population increased at a rate well above the regional average, representing the fourth highest growth rate in the region.

The growth rate of the region between 1940 and 1970 is reflected in the significant growth in the principal urban centers of the region's counties, and this is true to an extent between 1970 and 1980. As shown in Table II, substantial population gains occurred in the City of Clarksville (Montgomery County) and in the cities of the other primary growth counties of the region which are located adjacent to Metropolitan Nashville - Davidson County. Hendersonville and Brentwood are two examples of substantial rates of population growth in cities at the fringe of Davidson County. High percentage growth rates in other primary growth counties such as Rutherford and Wilson, however, are also contributed to by significant growth in unincorporated areas on the fringe of Davidson County.

The City of Lebanon has also experienced an appreciable amount of population growth outside of the municipal boundaries since 1970, while the city had a five (5) percent loss of population inside the City. This negative growth has been the direct result of a Tennessee

TABLE 1

POPULATION OF COUNTIES IN THE MID-CUMBERLAND REGION
1940, 1970 and 1980

	1940		1970		1980		% Change
	Population	% of Region	Population	% of Region	Population	% of Region	1970-1980
Cheatham	9,928	1.97	13,199	1.66	21,616	2.2	+63.8
% Urban	00.0		00.0		00.0		
Davidson	257,267	50.98	447,877	56.83	477,811	49.19	+ 6.7
% Urban	65.1		97.4		98.3		
Dickson	19,718	3.91	21,977	2.77	30,037	3.09	+36.7
% Urban	17.8		25.8		23.4		
Houston	6,432	1.27	5,845	0.73	6,871	0.70	+17.4
% Urban	00.0		00.0		00.0		
Humphreys	12,421	2.46	13,560	1.65	15,957	1.64	+17.7
% Urban	15.6		28.0		27.6		
Montgomery	33,346	6.62	62,721	7.82	83,342	8.58	+32.9
% Urban	35.4		65.4		65.7		
Robertson	29,046	5.75	29,102	3.63	37,021	3.81	+27.2
% Urban	23.0		33.4		37.8		
Rutherford	33,604	6.66	59,428	7.39	84,058	8.66	+41.4
% Urban	28.3		58.7		56.1		
Stewart	13,549	2.68	7,319	0.88	8,665	0.89	+18.4
% Urban	00.0		00.0		00.0		
Sumner	32,719	6.48	56,106	7.13	85,790	8.84	+52.5
% Urban	14.8		50.3		57.9		
Trousdale	6,113	1.22	5,155	0.66	6,137	0.63	+19.0
% Urban	00.0		00.0		43.5		
Williamson	25,220	4.99	34,330	4.29	58,108	5.98	+68.8
% Urban	16.3		27.4				
Wilson	25,267	5.01	36,999	4.56	56,064	5.77	+51.5
% Urban	23.6		33.8		26.3		
REGION	504,630		793,618		971,477		+22.4

SOURCE: U.S. Census of Population, 1940, 1970, 1980.

TABLE II

POPULATION OF SELECTED MUNICIPALITIES,

MID-CUMBERLAND REGION

1940, 1970 AND 1980

	1940	1970	1980	1970-1980
Clarksville	11,831	31,719	54,777	72.7
Murfreesboro	9,495	26,360	32,845	24.6
Gallatin	4,829	13,253	17,191	29.7
Lebanon	5,950	12,492	11,872	- 5.0
Springfield	6,668	9,720	10,814	11.3
Franklin	4,120	9,497	12,407	30.6
Dickson	3,504	5,665	7,040	24.3
Waverly	1,318	3,794	4,405	16.1
Huntsville	--	2,243	2,674	19.2
Ashland City	957	2,027	2,329	14.9
McEwen	617	1,237	1,352	9.3
Erin	905	1,165	1,614	38.5
Brentwood	--	4,099	9,431	130.1
Portland	1,212	2,872	4,030	40.3
Hendersonville	--	412	26,561	+1000.0

SOURCE: U.S. Census of Population, 1940, 1970, 1980.

Department of Public Health moratorium placed on the city's municipal wastewater system for much of the 1970's, and still remains in effect today. The moratorium prohibits the connection of any additional houses, businesses, industries or other developments to the system until required treatment and other improvements are implemented. The city has worked toward resolving the problem for a number of years with the Environmental Protection Agency (EPA). EPA grant funds were approved in 1983 and construction is expected to be initiated early in 1984.

Income

Income expressed in various ways provides an overall indication of an area's economic effectiveness. Two measures of income, total personal income and average per capita income are used here to indicate Wilson County's position in the Mid-Cumberland Region and the relative well-being of the county's residents.

As shown in Table III, Wilson County's share of total regional personal income represents the fifth largest portion among counties surrounding Davidson County's major regional share of almost 57 percent. Personal income in the Mid-Cumberland Region more than doubled between 1971 and 1978, with income increasing in all counties. All counties increased or maintained their share of the regional total except Davidson, which declined by 5.1 percentage points. The share of regional personal income in Wilson County increased from 4.1 to 4.5 percent during the period.

Average economic benefits for individual residents in Wilson County, as approximated by per capita income in Table IV, were somewhat above the regional average for both 1970 and 1978. Per capita income in the county was slightly higher than the State average in 1970 but had fallen below the State by 1978. Wilson County ranked fifth in the rate of per capita income growth for the region for the period.

Commerce

Business establishments in most areas, unlike manufacturing or agriculture, serve mainly local markets. Nevertheless, local business activity is highly important to an area's overall economic strength because the goods and services sold through local stores contribute to local income as well as absorb and distribute local income resulting from the export of manufactured and agricultural products. The following brief review of the magnitude and growth of retail trade and services in Wilson County in relation to other counties of the Mid-Cumberland Region is offered as a broad measure of economic vitality in these areas.

Table V shows a comparison of changes in per capita sales by county in the region between 1967 and 1977. Retail trade and services increased in Wilson County during the period by both measures, but at a rate below the regional average. Per capita sales in Wilson County in 1967 and 1977 ranked below the regional average in retailing, but were nearer average in services.

TABLE III

PERCENT OF PERSONAL INCOME OF COUNTIES

IN THE MID-CUMBERLAND REGION

1971 AND 1978

COUNTY	1971	1978	CHANGE IN PERCENTAGE POINTS 1971-1978
Cheatham	1.4	1.6	+ .2
Davidson	62.0	56.9	- 5.1
Dickson	2.3	2.4	+ .1
Houston	.6	1.1	+ .5
Humphreys	1.3	1.4	+ .1
Montgomery	7.1	7.1	-----
Robertson	3.1	3.7	+ .6
Rutherford	6.3	7.0	+ .7
Stewart	.7	.7	-----
Sumner	6.2	7.2	+ 1.0
Trousdale	.5	.6	+ .1
Williamson	4.4	5.5	+ 1.1
Wilson	4.1	4.8	+ .7
REGION	100.0%	100.0%	
REGION TOTAL	$3,000,200,000	$6,758,100,000	

SOURCE: Tennessee Statistical Abstract, 1980.

TABLE IV

Per Capita Income of the State and Counties

In the Mid-Cumberland Region

1970 and 1978

	1970	1978	Percent Change 1970-1978
TENNESSEE	3,079	6,547	112.6
Cheatham	2,767	5,755	107.9
Davidson	3,853	8,520	121.1
Dickson	2,804	5,648	101.4
Houston	2,575	5,071	96.9
Humphreys	2,761	6,040	118.7
Montgomery	3,405	6,019	76.4
Robertson	2,858	6,204	117.0
Rutherford	2,834	6,219	118.4
Stewart	2,654	4,736	78.4
Sumner	3,130	6,300	101.2
Trousdale	2,626	7,169	173.0
Williamson	3,615	7,303	102.0
Wilson	3,093	6,470	109.1
REGION	2,997	6,265	109.0

SOURCE: Tennessee Statistical Abstract, 1980.

TABLE V

PER CAPITA SALES IN RETAIL AND SERVICE SECTORS, BY COUNTY, IN THE MID-CUMBERLAND REGION

1967 and 1977

County	RETAIL TRADE $ Sales Per Capita 1967	1977	SERVICES $ Sales Per Capita 1967	1977
Cheatham	694	1376	43	231
Davidson	1785	4252	355	1268
Dickson	1018	2722	99	239
Houston	659	1183	31	84
Humphreys	1055	2765	71	276
Montgomery	1285	3130	127	341
Robertson	940	2285	72	132
Rutherford	1170	2707	119	401
Stewart	944	1563	58	116
Sumner	941	2207	86	299
Trousdale	1734	3598	53	117
Williamson	1089	2483	102	519
Wilson	1033	1923	103	276
REGION	1104	2476	101	330

SOURCES: Tennessee Statistical Abstract, 1980.
U.S. Census of Business, 1967.

A further indication of Wilson County's trade position in the region can be gained by comparing local retail and service sales with local personal income. In general, a greater percentage of sales in relation to income suggests greater success in capturing local dollars in local stores. Wilson County's percentage, shown in Table VI, ranks in the lower half of the region suggesting that local commerce receives a relatively small part of trade dollars potentially spent by local residents.

TABLE VI

TOTAL RETAIL AND SERVICE SALES AS A PERCENT OF

TOTAL PERSONAL INCOME FOR COUNTIES

IN THE MID-CUMBERLAND REGION

1977

County	Percent	County	Percent
Cheatham	37.3	Rutherford	63.0
Davidson	77.7	Stewart	38.1
Dickson	63.6	Sumner	49.0
Houston	29.3	Trousdale	69.7
Humphreys	62.5	Williamson	55.2
Montgomery	66.7	Wilson	44.8
Robertson	49.3		

SOURCE: Tennessee Statistical Abstract, 1980.

The pattern in Wilson County can be explained in part by its close proximity and accessibility to the trade drawing power of Nashville as a regional trade center, whose regional strength is in high cost, specialized, and luxury goods and services which usually account for larger portions of family expenditures when income rises.

Employment

The distribution of employment among major economic sectors in Wilson County and the Mid-Cumberland Region at different points in time, as presented in Table VII, provides a broad measure of the functional characters of both economies and how they are changing. The major functional changes in the County between 1960 and 1980 appear to be increases in all nonagricultural sector shares of employment balanced against a continued declining share in agriculture. The most significant increases occurred in the manufacturing, retail and service sectors. Total employment, like total population, experienced a substantial increase since 1960 in that it more than doubled. In 1960, agriculture was still the County's third largest employer, however, it had dropped to fourth by 1980.

In comparing the 1980 Wilson County employment structure with that of the region, major differences appear in the respective proportions of total workers in agriculture, transportation, wholesale trade, finance, services and public administration sectors which reflect the greater urbanization of the region. While the County has a higher percentage of workers employed in manufacturing, other sectors have similar percentages.

Total employment in Wilson County increased by over 123 percent between 1960 and 1980 while increasing only slightly more than 75 percent in the Mid-Cumberland Region. Except for agriculture, however, changes in employment distribution among economic sectors since 1960 in the region have generally been similar to changes in the County. During this period, as shown in Table VIII, the County's share of regional employment steadily increased from 4.3 to 5.5 percent. This increased regional share reflects the trend of a more even distribution of the Region's employment consistent with the expansion of Greater Nashville into the Region, and the substantial industrial development which Lebanon and Wilson County have experienced since the 1950's.

SUMMARY

Together, the economic indexes reflect Wilson County's position as an urbanizing area located adjacent to a much larger and regionally dominant urban center. The County represented well over four percent of the Region's population, employment and income in 1960. Trends in population and employment confirm that Wilson, like other metropolitan area counties in the Mid-Cumberland Region, is undergoing the process of urban development which Nashville experienced decades earlier. Decentralization of manufacturing in terms of employment to outlying

TABLE VII

EMPLOYMENT IN MAJOR INDUSTRIAL SECTORS,
WILSON COUNTY AND THE MID-CUMBERLAND REGION

	Wilson County				Mid-Cumberland Region			
	1960	% of Total	1980	% of Total	1960	% of Total	1980	% of Total
Agriculture, Forestry, Mining	1,786	17.1	2,057	8.8	18,397	7.5	17,178	4.0
Construction	849	8.1	2,011	8.6	17,920	7.3	35,645	8.3
Manufacturing	2.607	25.0	6,196	26.5	55,981	23.0	104,788	24.4
Transportation, Communications, Utilities	545	5.2	1,356	5.8	16,865	6.9	29,633	6.9
Wholesale Trade	278	2.7	678	2.9	9,510	3.9	17,178	4.0
Retail Trade	1,503	14.4	3,624	15.5	35,515	14.6	67,426	15.7
Finance, Insurance, Real Estate	298	2.9	842	3.6	11,215	4.6	20,185	4.7
Services	1,949	18.7	5,027	21.5	59,255	24.3	104,788	24.4
Public Administration	297	2.8	888	3.8	11,251	4.6	19,755	4.6
Not Reported	327	3.1	701	3.0	7,949	3.3	12,884	3.0
TOTAL	10,439	100.0	23,380	100.0	243,858	100.0	429,460	100.0

SOURCE: U.S. Census of Population, 1960, 1970
1980 Sector Share Estimates, John Coleman Hayes & Associates, Inc.
1980 Employment, Tennessee Department of Employment Security.

TABLE VIII

TOTAL EMPLOYMENT OF COUNTIES IN THE MID-CUMBERLAND REGION

1960, 1970 and 1980

	1960	% of Region	1970	% of Region	1980	% of Region
Cheatham	3,086	1.3	5,472	1.7	9,080	2.1
Davidson	153,374	62.5	181,317	56.3	227,770	53.1
Dickson	6,366	2.6	9,012	2.8	13,500	3.1
Houston	1,433	0.6	1,875	0.6	2,730	0.6
Humphreys	3,681	1.5	4,769	1.5	6,350	1.5
Montgomery	14,868	6.1	26,792	8.3	26,810	6.2
Robertson	9,842	4.0	11,909	3.7	16,710	3.9
Rutherford	15,329	6.3	24,139	7.5	35,880	8.4
Stewart	2,385	1.0	2,450	0.8	2,500	0.6
Sumner	13,321	5.4	22,852	7.1	37,080	8.6
Trousdale	1,906	0.8	2,302	0.7	3,180	0.7
Williamson	8,828	3.6	13,840	4.3	24,490	5.7
Wilson	10,439	4.3	15,127	4.7	23,380	5.5
REGION	243,858	100.0	321,856	100.0	429,460	100.0

SOURCE: U.S. Census of Population, 1960, 1970
Tennessee Department of Employment Security, 1980 Employment

counties began in the 1950's, and current data confirm that these counties are accounting for increasingly larger shares of the Region's population, employment, and income. The trends are indicative of an expanding metropolitan region, and for Wilson County imply continuing urbanization, economic expansion, and closer economic ties with Nashville.

FUTURE ECONOMIC ACTIVITY IN LEBANON AND WILSON COUNTY

It is possible to consider the future economy from many standpoints, however, attention here is focused on a major aspect which is of particular importance for comprehensive planning -- the overall employment structure. The future level of employment is a measure of economic potential that relates to numbers of people, and therefore is directly useful in forecasting future population. The projections presented in this and the following sections are intended to indicate what future levels of employment and population are likely to be if the conclusions reached in this report hold true.

The foregoing analysis has attempted to recognize the need to consider the local economy as a segment of a larger regional economy. The regional economy is part of a still larger part of an increasingly intra-related national economic structure. Therefore, in considering the future local economy, it is logical and necessary to take into account the major trends which the national and state socio-economic structure is expected to follow.

With this economic interdependence in mind, the employment forecast for Wilson County is made based on the following broad assumptions concerning economic conditions:

(1) The institutional framework of the Nation and Mid-Cumberland Region will not change radically during the projected period.

(2) Major events, such as widespread, long-lasting energy shortage or war, or periods of economic inflation or recession, will not alter significantly the industrial structure of the economy or the rate of economic growth.

(3) Current technological, scientific, and social trends such as values placed on work, education, income, and leisure will continue.

(4) The regional economy will grow during the projected period at a rate similar to the regional growth rate over the previous 20 year period.

As shown in Table IX, total regional employment is expected to exceed 600,000 by the year 2000. This total employment is further apportioned to the region's counties on the basis of the anticipated share of total regional employment in line with historical growth trends. All counties outside of Davidson are expected to maintain or increase their percentage shares of regional employment, balanced against the declining share for Davidson County. Wilson County is

expected to continue the steady increase of its percentage share of regional employment experienced in the two previous decades. The County's total employment by the year 2000 is projected to exceed 43,600.

The trend between 1960 and 1980 indicates, overall, that all services-producing sectors of the local economy have been increasing their shares of Wilson County employment, primarily at the expense of the long-term decline in agricultural employment. By the year 2000 it is expected that virtually every service-producing sector in Wilson County will increase its share of County employment, while agriculture continues to decline. As Wilson County's urban employment expands, it is expected to increasingly resemble the functional structure of the region and nation. Proportions of County employment in the major economic sectors are presented in Table X.

TABLE IX

TOTAL EMPLOYMENT OF COUNTIES IN THE MID-CUMBERLAND REGION
1980-2000

	1980	% of Region	1990	% of Region	2000	% of Region
Cheatham	9,080	2.1	12,012	2.3	15,377	2.5
Davidson	227,770	53.1	254,341	48.7	272,473	44.3
Dickson	13,500	3.1	17,235	3.3	22,142	3.5
Houston	2,730	0.6	3,134	0.6	3,690	0.6
Humphreys	6,350	1.5	8,356	1.6	10,456	1.7
Montgomery	26,810	6.2	34,991	6.7	44,900	7.3
Robertson	16,710	3.9	20,890	4.0	24,603	4.0
Rutherford	35,880	8.4	47,526	9.1	60,276	9.8
Stewart	2,500	0.6	3,134	0.6	3,690	0.6
Sumner	37,080	8.6	50,137	9.6	65,197	10.6
Trousdale	3,180	0.7	3,656	0.7	4,305	0.7
Williamson	24,490	5.7	33,425	6.4	44,284	7.2
Wilson	23,380	5.5	32,902	6.3	43,669	7.1
REGION	429,460	100.0	521,739	100.0	615,062	100.0

SOURCES: U.S. Census of Population, 1960, 1970
Tennessee Department of Employment Security, 1980 Employment
John Coleman Hayes & Associates, Inc., Projections 1990, 2000

TABLE X

EMPLOYMENT IN MAJOR INDUSTRIAL SECTORS OF WILSON COUNTY
1980 and 2000

	1980	% of Total	2000	% of Total
Agriculture, Forestry, Mining	2,057	8.8	2,183	5.0
Construction	2,011	8.6	3,756	8.6
Manufacturing	6,196	26.5	12,010	27.5
Transportation, Communications, Utilities	1,356	5.8	2,620	6.0
Wholesale Trade	678	2.9	1,310	3.0
Retail Trade	3,624	15.5	6,943	15.9
Finance, Insurance, Real Estate	842	3.6	1,703	3.9
Services	5,027	21.5	10,131	23.2
Public Administration	888	3.8	1,703	3.9
Not Reported	701	3.0	1,310	3.0
TOTAL	23,384	100.0	43,669	100.0

Sources: U.S. Census of Population, 1960, 1970
1980 Sector Share Estimates and Projections, John Coleman Hayes & Associates, Inc.
1980 Employment, Tennessee Department of Employment Security

THE POPULATION

Population analysis and forecasts are essential to the formulation of any program for community improvement. Future land space needs are determined in accordance with the needs of future numbers of residents can answer specific questions concerning particular community needs. For example, population forecasts may foretell the need for more schools, streets, and other community facilities.

Analysis of the Wilson County economy has indicated an employment level of over 43,600 by the year 2000, an increase of more than 86 percent over 1980 employment. In order to provide a basis for determining the future population which can be expected to parallel this economic expansion, the following paragraphs attempt to analyze the population of Lebanon and Wilson County with respect to past trends, existing characteristics, and potential growth factors.

COMPONENTS OF POPULATION CHANGE

Change in population for any given area can occur through the collective, or individual influence of three factors (1) natural increase or decrease, or the difference between total births and total deaths; (2) net migration, in or out of an area; and (3) expansion of city boundaries. Population change in Wilson County was relatively slight from the early 1900's to 1960, however, total population more than doubled between 1960 and 1980. The City of Lebanon, on the other hand, experienced consistent and high percentage increases the first half of the century, moving from 1,956 people in 1900 to 12,492 in 1970. A net loss of population has occurred within the City boundaries of Lebanon between 1970 and 1980, however, due to the moratorium on sewer system connections by the Tennessee Department of Public Health, which effectively halted new construction in the city during the 1970's and restricted the City's ability to grow through expansion of the corporate boundaries. Considerable growth has occurred at the fringe of the Lebanon City limits boundary, however.

The County's population numbered 25,394 in 1910 and 27,668 in 1960. The increment of population growth for the five years following 1960, however, was larger than the net increase during the previous 50 years, and as noted, County population more than doubled from 1960 to 1980. Much of the relatively slow growth between 1940 and 1960 was brought about largely by net out-migration. Natural increase in Wilson County has consistently numbered about 2,500 people for each decade since 1940. The difference in net population change before and after 1960 vary directly with net migration. Since 1960, therefore, net in-migration of people to the County has accounted for the bulk of the sizeable population increases.

TABLE XI
COMPONENTS OF POPULATION CHANGE IN WILSON COUNTY

1950-1977

Components	1950-1960	1960-1970	1970-1977
Natural Increase	3,132	2,645	2,200
Net Migration	-1,782	6,686	8,200
Population Change	1,350	9,331	10,400

SOURCE: Tennessee Statistical Abstract, 1980.

This pattern of population change and migration appears typical in areas which have been heavily agricultural and where there has been a time lag between the decline in agricultural employment and commensurate increases in urban employment opportunities. Reversal of the out-migration trend since 1940 is closely parallel to the substantial increases in the number of urban jobs which have occurred during the period, particularly in Lebanon since the late 1950's. In addition, brief examination of county net migration by age groups between 1940 and 1960 indicates that approximately 80 percent of net out-migration was accounted for in the 15-39 year old groups, all included within the productive years of life when employment is essential.

POPULATION FORECASTS

In order to plan for the development of any city, it is necessary to know approximately how many people will be living in the area for a given period of time in the future. It is the objective here, therefore, to suggest what the future population of Lebanon is likely to be.

As a first step in forecasting the population of the Lebanon Urban Area, the population of Wilson County is projected to the year 2000. Use of the county control forecast provides several important advantages in view of the following assumptions:

(1) Forecasts for large areas are substantially more accurate than those for smaller areas;

(2) Population growth in a smaller area is related to and affected by the growth in the larger region of which it is a part, particularly from the standpoint of economic influences on the population; and

(3) Changes in the economy of an area can exert an important influence on the population, especially by affecting migration.

The County offers the advantage of being the immediate larger area encompassing the Lebanon Urban Area and one for which a projected level of employment to the year 2000 is available.

Future Population In Wilson County

Future population in Wilson County is projected to the year 2000 on the basis of past and present trends in the ratio of total employment to population as indicated below.

TABLE XII

PROJECTED POPULATION FOR WILSON COUNTY
1990 and 2000

Year	Total Employment	Employment As A % of Population	Population
1960	10,439	37.7	27,668
1970	15,127	40.9	36,999
1980	23,380	41.7	56,064
1990	32,909	43.7	75,307
2000	43,669	45.7	95,556

SOURCE: U.S. Census of Population, 1960, 1970, 1980
Department of Employment Security, 1980 Employment Projections, 1990, 2000, John Coleman Hayes & Assoc., Inc.

The projection of 95,556 County residents in the year 2000, as indicated in Table XII, represents an increase of over 88 percent over the 1980 population level. The increase is expected to be more the result of net in-migration than natural increase and implies an increase in the proportion of adults within the 20-39 age groups in the County population.

Future Population In The Lebanon Planning Area

Projection of the future population for the Lebanon Urban Area provides a basis for estimating the demand for land and community facilities such as schools, water and sewer systems, and similar facilities which will be required to serve the local area population.

Future population in the Lebanon Urban Area is projected to the year 2000 on the basis of past and present trends in the ratio of Lebanon Urban Area population to total County population. Since the 1960's the City of Lebanon and its contiguous territory has consistently accounted for approximately one-third of Wilson County's total population. Projection of the Lebanon Urban Area population assumes a continuation of this trend over the planning period. The Urban Area projections, shown in the following Table XIII, therefore represent a one-third share of the Wilson County control population forecasts which are based on anticipated future employment levels for the County. The project population of 32,202 by the year 2000 reflects growth in excess of 70 percent over 1980 levels.

TABLE XIII
PROJECTED POPULATION FOR THE LEBANON URBAN AREA
TO THE YEAR 2000

Year	Population
1980	18,900*
1985	22,140
1990	25,379
1995	28,790
2000	32,202

*Estimated Urban Area Population

Source: U.S. Census of Population, 1960, 1970, 1980 Current Estimate And Projections To Year 2000, John Coleman Hayes & Associates, Inc.

THE PHYSICAL ENVIRONMENT

LAND USE

Purpose and Methodology

This section presents an evaluation of Lebanon in terms of physical characteristics of land and structures. The study includes all land within the Lebanon Urban Area which is the total area depicted on the Lebanon base map, comprising the City's incorporated territory as well as the fringe areas encompassing the City.

A community-wide survey of land use and structural conditions was conducted by the Lebanon-Wilson County Planning Office staff during the fall and spring of 1981-82. Tax maps were used in the field survey for recording the use and condition of each structure on a parcel-by-parcel basis. Information on types of land use and structural conditions was portrayed by colors and patterns on lot line maps for visual interpretation. Supplemental tables showing land use acreages and structural conditions were compiled before final evaluation of data. Other data relevant to the analysis of land and structural characteristics were provided through a soil survey by the U.S. Soil Conservation Service, local area flood studies, geological reports and similar sources.

Land use categories utilized in the study are identified as follows:

(1) Residential includes uses devoted to operation or maintenance of household units; rooming and boarding houses membership lodgings; residence halls or dormitories; retirement homes and orphanages; religious quarters; mobile homes; and similar structures.

(2) Commercial includes retail uses devoted to retailing of building materials; hardware; farm equipment; general merchandise; food; automobiles; marine and aircraft, and accessories; apparel and accessories; furniture; home furnishings and equipment; and similar uses. Also included are services devoted to operation or maintenance of transient lodgings; finance, insurance and real estate sales; personal services; business services; repair services; professional services; contract construction services; animal husbandry; and similar uses.

(3) Industrial includes uses devoted to manufacturing, processing, or refining food, textiles; apparel; lumber; furniture; paper; printing; chemicals; petroleum; rubber; metal; stone; clay; glass; and similar uses. Also included are wholesaling, warehousing, and storage uses.

(4) Public and Semi Public includes uses devoted to operation or maintenance of hospitals and out-patient medical clinics; governmental, educational, and cultural functions; and similar uses. Also included are churches; cemeteries; membership lodges;

parks and recreation areas; off-street parking areas and other transportation facilities (except streets, alleys, and railroads); electric, gas, water and sewer systems and facilities; and similar uses.

(5) Railroads and Streets includes uses devoted to operation or maintenance of public streets and railroads; and similar uses.

(6) Vacant Undeveloped includes land and water areas where development has not occurred.

In the evaluation of structural characteristics, the conditions of structures were divided into the following categories defined by the U.S. Bureau of the Census:

(1) Sound housing is defined as that which has no defects, or only slight defects which normally are corrected during the course of regular maintenance.

(2) Deteriorating housing needs more repair than would be provided in the course of regular maintenance.

(3) Dilapidated housing does not provide safe and adequate shelter and in its present condition endangers the health, safety, or well-being of the occupants.

An Overview of Land Characteristics and Patterns of Growth

The City of Lebanon is located approximately 30 miles to the east of Nashville on Interstate Highway 40. U.S. Highway 231 and U.S. Highway 70 intersect in the City's Central Business District (CBD). The total incorporated area of the City encompasses 4,733 acres, but Lebanon's total urban area includes 29,796 acres. Almost 73 percent (21,732 acres) of the land in the urban area is undeveloped, while the remaining 27.1 percent (8,064 acres) is used for residential, commercial, industrial, and other uses.

Residential uses predominate, comprising over 53 percent (4,292 acres) of the developed urban area. Railroads and streets are the second largest land user with 17.0 percent (1,373 acres) followed by public and semi-public uses with 16.6 percent (1,341 acres), industrial uses with 6.8 percent (549 acres) and commercial uses with 6.3 percent (510 acres). The spatial distribution of land uses is shown on illustration 2.

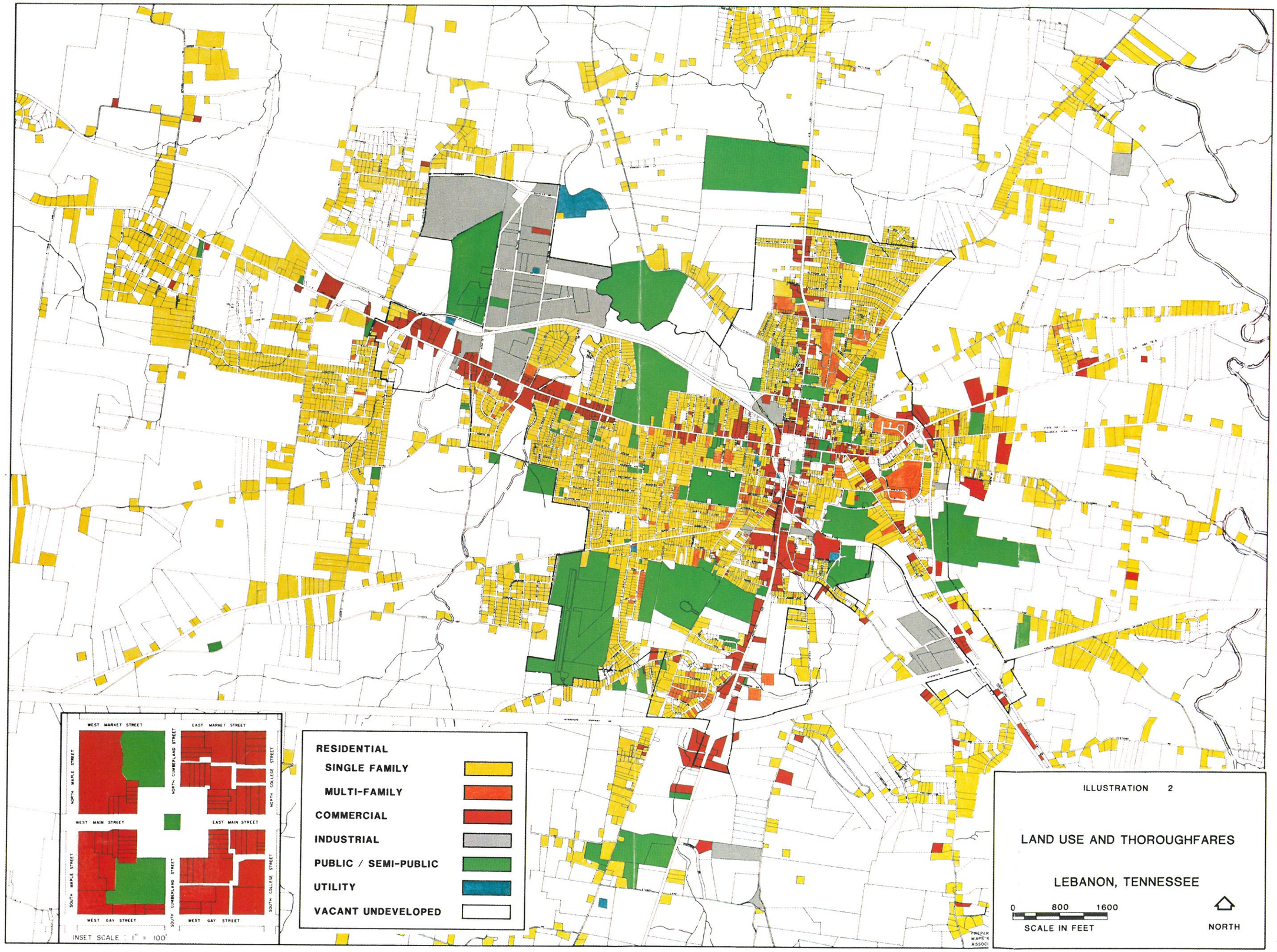
Lebanon's early settlement began near "a magnificent spring surrounded by a grove of giant cedars". Early development consisted of 40 acres surrounding the public square. As development continued over the years, Lebanon's residential nucleus accompanied commercial development of the public square. Commercial expansion subsequently enveloped the adjacent residential area and by the early 1900's, the central business district was solidly established.

ILLUSTRATION 2

LAND USE AND THOROUGHFARES

LEBANON, TENNESSEE

1982


WEST MARKET STREET
EAST MARKET STREET
NORTH MAPLE STREET
NORTH CUMBERLAND STREET
NORTH COLLEGE STREET
WEST MAIN STREET
EAST MAIN STREET
SOUTH MAPLE STREET
SOUTH CUMBERLAND STREET
SOUTH COLLEGE STREET
WEST GAY STREET
WEST GAY STREET
INSET SCALE : 1" = 100'
RESIDENTIAL
SINGLE FAMILY
MULTI-FAMILY
COMMERCIAL
INDUSTRIAL
PUBLIC / SEMI-PUBLIC
UTILITY
VACANT UNDEVELOPED
ILLUSTRATION 2
LAND USE AND THOROUGHFARES
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH

As the area surrounding the square developed, new streets were formed and further residential growth occurred. Early growth generally radiated outward in all directions from the square, however, the primary thrust of the City's growth has been to the north and west since the 1950's. The bulk of new residential development in the last decade has been outside the City's corporate limits to the west both north and south of Highway 70, to the north adjacent to Highway 231, and to a lesser extent to the south in the vicinity of the Lebanon Municipal Airport and Interstate Highway 40.

City expansion has been hindered somewhat to the south, southeast and northwest by both natural and man-made obstacles. To the south and northwest Barton and Sinking Creeks and their tributaries have served as obstacles to development. Temporary inundation of surrounding land has caused considerable damage to those structures built within the flood plain. Fortunately, few residences in recent years have been constructed within these flood plain areas due to the guidance of subdivisions regulations and zoning controls. Newer residential development to the west and northwest has "leapfrogged" beyond the flood plain of these streams, and today these sections represent primary growth areas of the community. A major stimulus for this growth has been convenient access to the Lebanon Industrial Park which serves as a primary concentration of employment opportunities in the community and the availability of prime residential sites. Significant residential growth in these areas has also served as a market stimulus for considerable commercial development along West Main Street in recent years from the Castle Heights Military Academy grounds and extending westerly beyond the U.S. Highway 70 By-Pass intersection which provides access to the industrial park. The West Main Street Commercial area now represents one of the community's major concentrations of retail trade and service activity.

Construction of the Tennessee Central Railroad tracks and subsequent commercial development hindered residential expansion in the southern areas. Also, within these areas and the northeast portion of Lebanon are numerous sink holes and rock outcroppings which pose physical limitations for most development. These natural obstacles to development are depicted in Illustration 3.

These physical limitations plus the early lack of building codes, subdivision regulations and zoning, allowed disorderly and uncontrolled development. Double front type lots, narrow street rights-of-ways, poor street alignment, inadequate surface drainage facilities, little or no setback, small lots, and poorly constructed houses were the consequences. These problems are evident in a number of the older residential areas of the City which are generally located within a mile of the public square. Uncontrolled growth of this type resulted in less than desirable living environments and has contributed to deterioration and blight in these areas. The extent of substandard housing conditions is evident in these older neighborhoods on Illustration 4, which indicates the spatial distribution of structural conditions.

ILLUSTRATION 3

LAND UNSUITABLE FOR URBAN DEVELOPMENT

LEBANON, TENNESSEE

1982

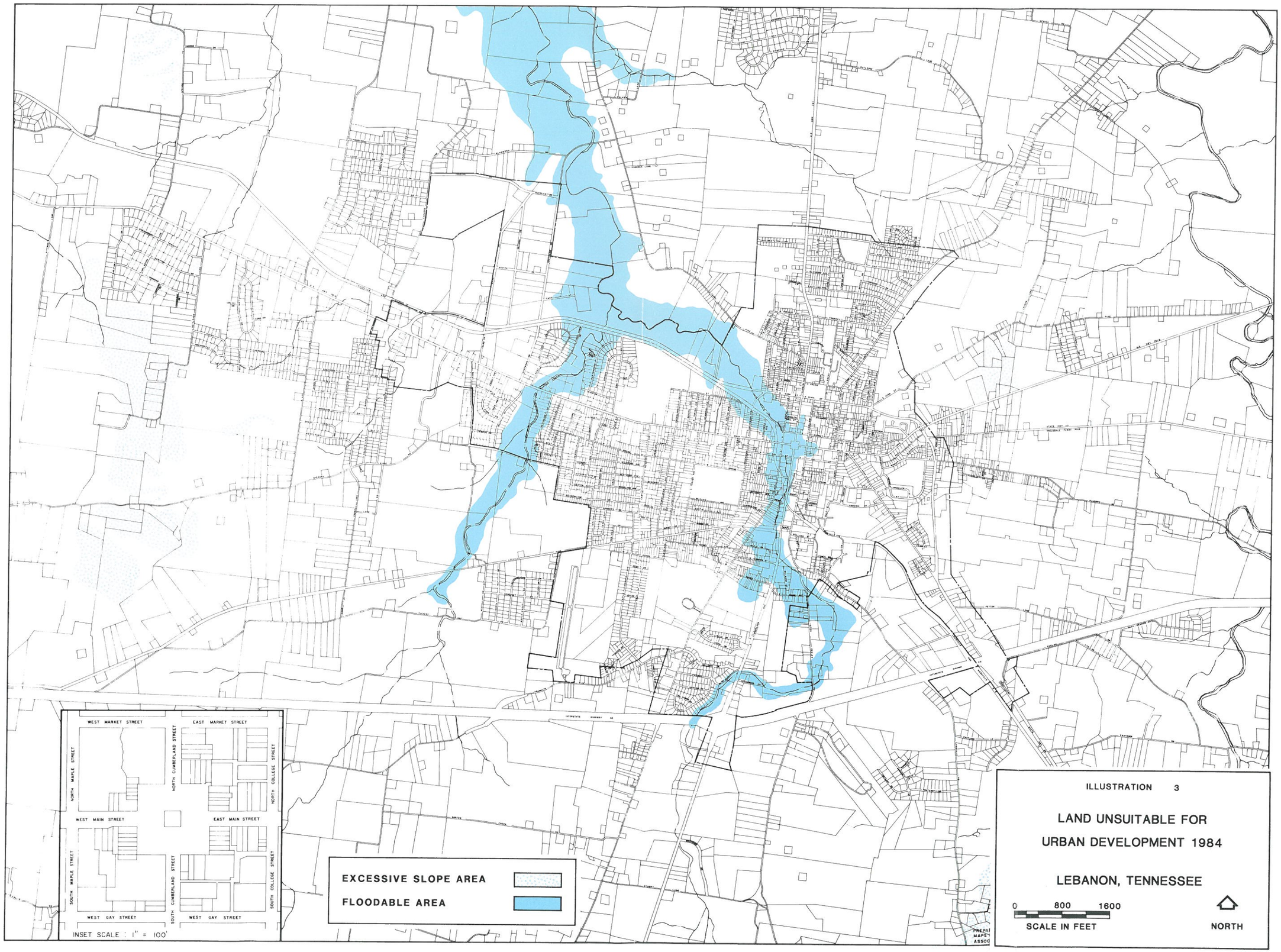

WEST MARKET STREET
EAST MARKET STREET
NORTH MAPLE STREET
NORTH CUMBERLAND STREET
NORTH COLLEGE STREET
WEST MAIN STREET
EAST MAIN STREET
SOUTH MAPLE STREET
SOUTH CUMBERLAND STREET
SOUTH COLLEGE STREET
WEST GAY STREET
WEST GAY STREET
INSET SCALE : 1" = 100'
EXCESSIVE SLOPE AREA
FLOODABLE AREA
ILLUSTRATION 3
LAND UNSUITABLE FOR
URBAN DEVELOPMENT 1984
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH

ILLUSTRATION 4

STRUCTURAL CONDITIONS

LEBANON, TENNESSEE

1982


WEST MARKET STREET
EAST MARKET STREET
NORTH MAPLE STREET
NORTH CUMBERLAND STREET
NORTH COLLEGE STREET
WEST MAIN STREET
EAST MAIN STREET
SOUTH MAPLE STREET
SOUTH CUMBERLAND STREET
SOUTH COLLEGE STREET
WEST GAY STREET
WEST GAY STREET
INSET SCALE : 1" = 100'
STANDARD
DETERIORATING
DILAPIDATED
ILLUSTRATION 4
STRUCTURAL CONDITIONS
1982
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH
PREPA MAPS A550

Through the Lebanon Community Development Office, the City has made substantial progress over the past five (5) years in the revitalization of several segments of these older, declining areas. To date, over 100 substandard houses have been rehabilitated through Community Development Block Grant assistance along Hobbs Avenue, Adams Street, Jennings Street, Maple Drive and Greenwood Street. Many public facilities such as water and sewer lines and streets have also been upgraded in these areas. Further neighborhood improvements will be scheduled in the future on the basis of the community revitalization plan which is subsequently outlined in this study.

With the advent of modern subdivision, zoning and building regulations in the late 1940's and 1950's residential subdivisions began to take on a different appearance; the grid street design became more varied, houses were constructed with better craftsmanship and materials, streets were curbed and the topography of the land was considered in the planning stages. It became mandatory that sewered lots be at least 9,000 square feet in area and where septic tanks were installed, lots of at least 15,000 square feet were required. Subdivisions in the north, west and southerly sections of the community reflect this controlled growth.

As the expenses of city living increased and rural roads and transportation methods improved, numerous residences appeared along major highways outside of Lebanon. This expansion resulted in elongated annexation of urban land. This type of development is usually quite costly to the City upon annexation and extension of services to these areas. Today, there is a significant amount of development at the fringe of the City outside of the corporate boundaries along and near major access routes. Attempting to annex and serve some of these areas will be more of a burden upon the City than others. The extension of city services to the Bluebird Road and Old Murfreesboro Road areas will be particularly costly since many of the properties have substandard structures. Annexation of substandard properties results in a very small contribution to the City tax base which will pay only a fraction of the cost required to provide adequate water and sewer, streets, police and fire protection, and other city services.

In the last decade, additions to the City through annexation have been limited to only a few small areas due largely to the lack of local sewerage treatment capacity to serve new areas. This is the primary factor resulting in negative population growth for Lebanon between 1970 and 1980. While there is a substantial amount of vacant land interspersed on much of the fringe area development due to the "leapfrogging" of outward City growth, there are many developed areas which should be annexed. Even though initial costs will be high, over

the long range, much of the cost of serving these properties will be accommodated through the resulting increased property tax base and increases in state-shared taxes to the City. A long range annexation program can be implemented as the sewer system capacity is increased under the scheduled improvement program.

A closely related factor that has influenced residential development in Lebanon is the soil and its drainage capacity. Poor drainage is a common characteristic associated with most soils in the Lebanon Urban Area. Illustration 5 indicates the locations of the various soil classifications, and the limitations of each classification are shown in Table XIV. As is evident, most of the Lebanon Urban Area soils have moderate to severe limitations for most urban development activities, and most soils in the community are not conducive to the use of septic tanks. Septic tanks are being used in many areas at the City's fringe where poor soil conditions exist creating conditions which contribute to poor sanitation and generally poor living environments. Such problems can be resolved through the expansion of municipal sewer system services to these areas.

With the exception of the extensive business expansion along West Main Street, the basic patterns and concentration of commercial activity have been relatively stable since the late 1960's and early 1970's. A considerable increase in business activity, however, is evident in the vicinity of the U.S. Highway 231 - Interstate 40 Interchange and to a lesser extent at the U.S. 70 - Interstate 40 Interchange. Both of these areas cater primarily to highway oriented businesses such as eating, transient lodging and auto service establishments. In recent years, however, U.S. 231 south (South Cumberland Avenue) and the 231 Interchange area have begun to attract different types of commercial activity including a financial institution, specialty store, auto dealership, construction equipment dealer, and auto tire establishment. A subdivision offering lots for commercial development has also located south of the U.S. 231 Interchange across from the commercial camping grounds. To date, a veterinary hospital has located in the subdivision.

The major concentration of retail and services uses is located in and adjacent to the Central Business District (CBD). Business development has expanded outward from the public square on Cumberland Avenue (U.S. 231) both to the north and south, along East Main Street, and along West Main Street. Business development along West Main is rapidly converting the once residential street to commercial use between the public square and Castle Heights Military Academy. As noted, the most extensive commercial development in recent years has occurred beyond Castle Heights on West Main Street.

The CBD has been in a state of transition for many years. The declining viability of the CBD as the center of retail trade activity has paralleled the development of competing shopping areas along

ILLUSTRATION 5

SOIL ASSOCIATIONS MAP

LEBANON, TENNESSEE

1982

SYMBOL	MAPPING UNIT NAME
1	BRADEYVILLE LOMOND
2	STIVERSVILLE HAMPSHIRE INMAN
3	TALBOTT ROCK OUTCROP
4	GLADEVILLE BARFIELD ROCK OUTCROP
5	EGAM ROLLEEN CAPSHAW

NORTH

0 2000 4000

SCALE IN FEET

LEBANON, TENNESSEE

ILLUSTRATION 5

SOIL ASSOCIATIONS MAP

DEVELOPMENT TABLE XIV
CAPABILITY OF SOILS WITHIN
THE LEBANON URBAN AREA

Symbol	Mapping Unit Name	Limitation	Light Industries %	Commercial Buildings %	Local Roads & Streets %	Dwellings with Basements%	Septic Tank Absorption Fields %	Depth to Rock	Agricultural Land %	Woodland Suitability	Hydrological Units
I	Bradeyville	Slight	40	40	-	10	30	30%-5'	75	75%-30	75% C
	Lomond	Moderate	50	50	90	15	60	60%-40-60"	20	25%-20	25% B
		Severe	10	10	10	75	10	10%-40"	5		
II	Stiversville	Slight	-	-	-	10	10	25%-	10	50%-30	10%B
	Hampshire	Moderate	40	40	60	20	40	75%-40"	25	50%-20	90%C
	Inman	Severe	60	60	40	70	50	65"	65		
III	Talbott	Slight	-	-	-	-	-	75%-40"	-	100% C	100% C
	Rock Outcrop	Moderate	75	75	-	-	10	25%-12"			
		Severe	25	25	100	100	90				
IV	Gladeville	Slight	-	-	-	-	-	75%-10"	-	100% C	90% C
	Barfield	Moderate	-	-	-	-	-	25%-20"			10% D
	Rock Outcrop	Severe	100	100	100	100	100				
V	Egam	Slight	-	-	-	-	-	85%-5'	80	30%-20	85%C
	Rolleen	Moderate	50	50	10	50	5	15%-40-60"	10	60%-30	15%D
	Capshaw	Severe	50	50	90	50	95		10	10%-2W	

Source: United States Department of Agriculture, Soil Conservation Service
Survey by Mr. Jesse F. Campbell, Soil Scientist, 1982

231 north and West Main Street. Modern stores, convenient access, adequate off-street parking, and less congestion at the outlying shopping areas have been primary factors attracting shoppers to these areas.

In a survey of shopping area preference conducted by the City 15 years ago (1967), 44.2 percent of Lebanon's residents preferred to shop in the CBD while 31.9 percent preferred Lebanon's shopping center, 11.6 percent preferred shopping in Nashville-Davidson County, and 12.3 percent had no preference or shopped in other areas. A similar survey today, however, would no doubt show a decline in preference for CBD shopping due primarily to the persistance of structural deterioration, inadequate off-street parking, traffic congestion, and functional obsolescence.

The Lebanon Industrial Park, located in the northwesterly section of the City, represents the primary concentration of industrial and wholesaling activities in the community. The Industrial Park, initially developed by the City in the late 1950's with over 300 acres, has made a major contribution to Lebanon's industrial growth for a number of years. Toshiba of America was the last major industry to locate in the park in 1978, occupying the last available acreage.

During the 1970's another concentrated area of industrial activity developed at the northwest quadrant of the U.S. 70 - Interstate 40 Interchange in south Lebanon. Like the Industrial Park, this area has good highway and rail access with immediately available utilities. In addition, a substantial amount of vacant acreage is still available to accommodate industrial expansion in the area. Wastewater services are scheduled to be expanded in the area via the Watertown Highway interceptor line, and a study is in progress to determine the feasibility of improving additional land for new industrial development in the area.

Other industrial plant sites are located in various areas of the City with the most significant industrial acreage being situated just northwest of the CBD and further north adjacent to North Cumberland Street. Most of these scattered sites represent earlier industrial growth in the community and some have resulted in conflicts with adjacent commercial and residential activities due to traffic congestion, inadequate off-street parking and inadequate loading facilities. Major land use conflicts, however, do not appear to exist today.

Analysis of Land Use Classifications and Structural Conditions

With the previous summary of land characteristics and development patterns serving as a frame of reference, subsequent pages present a more detailed analysis of land use and structural conditions in accordance with the prior defined classification systems. Table XV indicates a summary of the various land use categories by amount of acreage in the Lebanon Urban Area, while Tables XVI and XVII depict the number and condition of residential and non-residential structures in the area, respectively.

TABLE XV
LAND USE
LEBANON URBAN AREA
1982

USE CATEGORY BY ACRES

	Residential	Commercial	Industrial	Public and Semi-public	Railroads and Streets	Total Developed	Vacant Undeveloped	Total Acres
Inside City Limits	1,644.65	380.24	451.65	701.40	458.68	3,636.62	1,096.34	4,732.96
Outside City Limits	2,646.98	129.30	97.26	480.89	913.92	4,268.35	20,794.69	25,063.04
Total	4,291.63	509.54	548.91	1,182.29	1,372.60	7,904.97	21,891.03	29,796.00

Source: Lebanon-Wilson County Planning Office;
John Coleman Hayes & Associates, Inc.
Engineers, Architects, Planners

TABLE XVI
RESIDENTIAL STRUCTURAL CONDITIONS
LEBANON URBAN AREA
1982

	Sound	Percent of Total	Deteriorating	Percent of Total	Dilapidated	Percent of Total	Total Dwelling Units	Percent of Total
Inside City Limits	3,505	80.0	763	17.4	112	2.6	4,380	100
Outside City Limits	1,639	88.8	154	8.3	53	2.9	1,846	100
Total Dwelling Units	5,144	82.6	917	14.7	165	2.7	6,226	100

Source: Lebanon-Wilson County Planning Office;
John Coleman Hayes & Associates, Inc.
Engineers, Architects, Planners

TABLE XVII

NON-RESIDENTIAL STRUCTURAL CONDITIONS
LEBANON URBAN AREA
1982

	Sound	% Of Total	Deteriorating	% of Total	Dilapidated	% of Total	Total	% of Total
Inside City	567	85.1	83	12.4	17	2.5	667	100.0
Outside City	91	91.0	4	4.0	5	5.0	100	100.0
Total	658	85.8	87	11.4	22	2.9	767	100.0

Source: Lebanon-Wilson County Planning Office;
John Coleman Hayes and Associates, Inc.
Engineers, Architects, Planner

Residential Uses and Conditions:

With the exception of vacant undeveloped land, residential uses account for a major portion of the land in the urban area. These uses comprise almost 4,300 acres, or 53 percent of the total developed area.

Among the previously noted local development problems of poor soil conditions, inadequate drainage and flooding, and incidences of land use conflicts, one of the most critical problems is the prevalence of structural deterioration and blight. Structural survey data revealed that almost 83 percent of the 6,226 dwelling units in the total urban area are in sound condition while 14.7 percent are classified as deteriorating and 2.7 percent as dilapidated. Only 80 percent of the housing within the city limits is classified as sound, with the remaining 20 percent being substandard. These figures reflect a higher pecentage of sound housing outside of the City due to the large number of the houses that have been constructed on the City's fringe in recent years. The bulk of the substandard housing within the city limits is concentrated in the previously discussed older, declining neighborhoods. While substandard housing outside of the City is scattered, two (2) major concentrations are located along Old Murfreesboro Highway and in the Blue Bird Road Area. The spatial distribution of structural conditions in the Lebanon Urban Area is shown on Illustration 4.

A Housing and Community Revitalization Program is set forth in the plan implementation section of this report. The program focuses on the improvement of substandard housing conditions and the revitalization of declining neighborhoods as well as on needed revitalization measures in the Central Business District, the problems and prospects of which are considered in more detail under the following sections.

Nonresidential Uses and Conditions: The physical and other factors affecting the characteristics and spatial distribution of nonresidential land uses have been outlined in the previous discussion of land development. Nonresidential land in the urban area amounts to 3,772 acres, or over 47 percent of the total developed area. The majority of the nonresidential uses are concentrated inside the city limits, within and adjacent to the CBD, along West Main Street and in the Industrial Park, and in the vicinity of the interstate interchange areas.

Structural survey data indicate that almost 86 percent of the nonresidential structures are in sound condition, with over 11 percent deteriorating and three (3) percent dilapidated.

Commercial land uses, including retail trade and service activities, account for 509.5 acres or 6.4 percent of the developed land in the urban area. Again, the CBD and adjacent areas, the West Main strip commercial area, and businesses in the vicinity of the U.S. 231-Interstate 40 Interchange area represent the major concentrations of these areas. A major problem in the strip commercial areas include

inadequate control of ingress and egress for individual business sites ofen resulting in conflicting traffic movements, however, a number of problems are evident in the CBD including:

1) Traffic Congestion-U.S. Highway 70 and U.S. Highway 231 intersect at the Public Square--the center of the Central Business District. The 1980 Transportation Study by the Tennessee Department of Transportation indicates this area to be the point of heaviest traffic convergence in the City. U.S Highway 231 (North and South Cumberland Street) was shown to carry an average daily traffic volume of about 11,000 vehicles at the Square, while U.S. Highway 70 (East and West Main Street) was shown to carry an average daily traffic count ranging from 4,500 on East Main Street to 14,000 on West Main Street.

Traffic Congestion is particularly intensified at the Public Square during peak hour traffic periods in the morning and afternoon, but some level of congestion appears to be prevalent throughout the day because of the large through traffic volumes on these two (2) major arterial routes.

2) Inadequate Off-Street Parking-A recent parking survey indicates a total of only 140 public off-street parking spaces in the CBD. Sixty-four of these spaces are provided in the parking "island" in the center of the square, while 76 spaces are provided in the municipal parking lot at the southwest corner of the square. An additional 40 on-street spaces are available in the immediate square area and 54 more on-street spaces are available in the CBD along the major access streets. These on-street spaces, which produce parking manuevers conflicting with traffic flows, tend to further intensify congestion created by the convergence of heavy traffic volumes in the square.

This large volume of through traffic, traffic congestion, and limited availability of parking, therefore, are substantial deterrents to potential CBD shoppers who may otherwise make shopping visitsto the CBD on a more frequent basis.

3) Structural Deterioration-In the CBD, on four (4) blocks fronting on the Public Square, there is a total of 76 active retail-service estalishments and 9 vacant business structures. These 85 units contain an estimated 387,000 square feet of floor area, 351,000 square feet occupied and 35,600 square feet vacant. Approximately 15,000 square feet of the vacant space is in the old theater building. One vacant structure, the old hotel, was destroyed by fire only in recent months.

The structural survey indicates that over 45 percent or 166,150 square feet of the occupied business space is in substandard structures (deteriorating or dilapidated), while over 87 percent or 30,850 square of the vacant space is in such condition. The majority of these substandard buildings are of masonry construction and appear structurally stable, however, considerable restoration work is required to return this space to sound condition.

Many of the buildings which are designated as being in sound condition could be classified as functionally obsolete due to such problems as poorly arranged interior space and/or poor interior design and lighting, dated equipment and merchandise displays, and deteriorating furnishings and fixtures.

This brief summary of CBD problems emphasizes that the continuation of an economically viable Central Business District in the future demands: (a) rerouting of heavy through traffic volumes from the CBD area, (b) provision of adequate off-street parking area, and (c) substantial revitalization of substandard/functionally obsolete structures, both internally and externally.

Further evaluation of commercial land use reveals that a total of over 969 acres of land within the corporate boundaries of the City are zoned for commercial activities. As indicated, however, just slightly more than 380 acres inside the City are presently in commercial use, reflecting that Lebanon has an excess of almost 590 zoned commercial acres. Some of this zoned area is now occupied by other uses, e.g. residences, but must still be considered as available and potential commercial land. This available commercially zoned acreage represents more land than is projected as needed over the planning period to the year 2000 for the entire urban area. Many of these presently zoned areas may never actually go into commercial use or serve more than marginal commercial activities due to:

1) Limited overall market demand for commercial uses or limited demand at the particular site location, or

2) Limited desirability of a particular site as a result of adjacent structural deterioration, congestion, or other environmental problems.

CBD revitalization activities in the future can be expected to encourage the expansion of existing businesses and development of new businesses in line with market demands as the central shopping area becomes more accessible, convenient and attractive to local shoppers. However, CBD renewal and expansion is often preempted in meeting market demands due to the relative ease of establishing new business locations at outlaying, less congested areas along major transportation routes. New neighborhod business locations at the City's fringe are likely to be required as outward growth occurs, however, an emphasis toward containment of existing business zones and increasing the quality of development in these zones will lead to safer, more attractive, convenient and more economically viable commercial areas for the City of Lebanon.

Industrial land uses including manufacturing, wholesaling and warehousing activities, account for almost 549 acres or 6.9 percent of the total developed area. The primary concentrations of these uses are in the Industrial Park and in the vicinity of the U.S. 70-Interstate 40 Interchange. Scattered sites are located in several areas of the community, the larger ones of which are north of the CBD along Maple Street and at the intersection of East Forest Avenue and

U.S. 231 North, as well as, to the south of the CBD along U.S. 231 South and along South College Street. The Industrial Park is now filled to capacity and few improved industrial sites are available in the community. There is potential for additional industrial expansion, however, adjacent to the industrial concentration at the U.S. 70 - Interstate 40 Interchange. This area has suitable topography, excellent rail and highway access, and is conveniently located with respect to water. Sewer service is scheduled for the area. There also appears to be good potential for additional industrial development to the south of this interchange area because of good topography and availability of rail and highway access, however, the extension of adequate utilities to this area will be required.

The structural survey indicates that the vast majority of land uses in the industrial classification are in sound condition. Only a few small industrial locations in older areas of the City are considered to be in a deteriorating condition.

Public and Semi-Public uses comprise over 1,340 acres or 16.6 percent of the total developed area. These uses are grouped under three (3) major classifications including: (1) Institutional; (2) Entertainment and Recreation; and, (3) Transportation, Communications and Utilities.

Institutional land uses occupy over 606 acres of land in the community. The majority of these acres are accounted for by large space using facilities such as Cumberland University, Castle Heights Military Academy, the high school and elementary schools, hospital and other health facilities, and cemeteries. Other institutional uses in the locality include the Wilson County Courthouse, Lebanon City Hall, Board of Education Offices, National Guard Armory and the Lebanon Services Building. For the most part, these uses are well placed, have adequate sites and access, and are generally compatible with their surrounding areas. One instance of incompatibility, however, is the National Guard Armory which is located on an inadequate site in a predominantly commercial area on South Cumberland. This problem is to be resolved through the scheduled construction of a new Armory facility at a site adjacent to the Lebanon Municipal Airport.

Entertainment and recreation land uses account for 477 acres in the public and semi-public use category. The bulk of this acreage is represented by the Lebanon Golf and Country Club, Hunter's Point Golf Course, James E. Ward Agricultural and Community Center, Williams D. Baird Municipal Park, and park areas on Adams Street and Beard Avenue. No major land use problems or conflicts are associated with these uses.

Land uses included in the transportation, communications and utilities classification comprise over 257 acres. Facilities that fall within this category include the Lebanon Municipal Airport, County highway department, electric generating substations, telephone company, radio station, Wilson County Electric Cooperative, sewage treatment plant, bus and truck terminals, and public parking areas. All of these are reasonably well located in Lebanon with adequate access, sufficient

site acreage, and do not add materially to traffic congestion. In regard to public parking areas, as previously indicated, the primary problem is that a very limited amount exists to handle the heavy traffic volumes in the area of the public square. Additonal parking must be provided in the CBD area within convenient walking distance to shopping facilities.

Lebanon is served by the main line of the L & N Railroad which runs diagonally in a northwest-southwest direction through the center of the City. The railroad and street systems as development factors have been generally discussed. Both the railroad and the street system account for almost 1,373 acres or over 17 percent of the total developed area. The thoroughfare system and other transportation facilities are inventoried and evaluated in a subsequent section of this report.

Vacant Undeveloped: Of the 21,732 acres of vacant land in the Lebanon Urban Area, almost 1,100 acres are inside the corporate limits. Much of this land is unsuitable for development due to flooding, adverse topographic conditions, sink holes, rock outcroppings, and man-made barriers. Numerous small acreage tracts suitable for development, however, exist throughout the City.

Vacant land outside the corporate limits is plentiful, however, some areas are more condusive to development than others. Areas to the north and west offer prime residential acreage, while land areas to the southeast in close proximity to the L & N Railroad and Interstate 40 offer good industrial potential. These areas are relatively free from adverse topography and other natural obstacles to development. Expansion of the public sewer system is recommended to serve outward city growth into these areas.

Even though areas to the south of Interstate 40 are especially predominant with sink holes and rock-croppings, development of the area has intensified in recent years. The obstacle of the interstate itself and the cost of extending water and sewer services south of Interstate 40 have also served to delay any extensive development of the area, and will likely be a continuing depressant in the future. However, the prime vacant areas existing along major access routes and in the vicinity of the interchanges will increasingly be impacted by development pressure as adequate utilities are extended to serve them.

The poor quality of development at the City's easterly fringe has limited growth to the east and will continue to do so in the immediate future. In addition, rock out-croppings and limited soil quality in this area will also deter extensive development as will the lack of adequate utility services.

Future Land Needs

Residential: Additional residential land likely to be needed by the year 2000 was projected by distributing future numbers of families (calculated from projected population, assuming continuation of the 1980 Lebanon average of 2.64 persons per household and an average of almost 3 persons per household in the County) in the urban area with some increase in densities. Increasing density will occur as lot size per family decreases with expansion of the City's water and sewer systems and as the demand for apartments increase. While the popular preference for detached single-family residences is expected to remain the dominant influence over the planning period, density increases due to increased apartment type construction is anticipated. Trends in high interest rates and inflated housing costs in recent years effectively remove many families from potential home ownership and increase the likelihood for higher density apartment development in the future to accommodate local housing needs. In view of these considerations, it is estimated that 2,168 additional residential acres will be needed in the Lebanon Urban Area by the year 2000.

Commercial: The amount of land needed to accommodate new commercial facilities in the urban area during the planning period was projected by obtaining a ratio between current acreage in commercial use and current local population, then adjusting the ratio to reflect expected changes in site design of commercial facilities. Future retail and service sites figure to use more land in relation to population in view of the trend toward incorporating a substantial proportion of total space for off-street parking and landscaping. In particular, facilities which locate in the outlaying portions of urban areas are expected to have ample space to utilize the contemporary "shopping center" development arrangement, wherein buildings often occupy less than one-quarter of the site. By the year 2000, retail and service uses in the urban area will require the development of an additional 363 acres. This demand will require the use of only about 61 percent of the 590 acres presently zoned in excess of commercial need -- and will likely require locational adjustments to meet changing land use patterns and new market demands.

Industrial: Total employment for industrial, wholesaling and warehousing activities in the urban area by the year 2000 is calculated as 13,320 employees, or an increase of 6,446 over 1980 figures. Utilizing a standard of 20 employees per gross industrial acre, additional land needed by the year 2000 is estimated to be 322 acres.

Public and Semi-Public: Public and semi-public land, including space for institutional, entertainment and recreation, and transportation, communications, and utilities uses, is also expected to increase--in terms of new sites to serve population growth and as sites for existing community facilities are expanded to meet improved standards. Schools should account for much of the demand for institutional space; they require expansion directly with population growth and are requiring larger sites for more space per pupil and multiple-purpose use. Land for entertainment and recreation uses figures to increase

due to improvements in the local neighborhood park system. Transportation, communication, and utilities uses will require little additional land by the year 2000; modest increases will be required for utilities expansions, while most off-street parking space (included in the projected land space needs in other use categories) will be provided by private business and industry. It is anticipated that public and semi-public uses in the urban area will need 275 additional acres by the year 2000.

Railroads and Streets: Based on increases in land for other uses, additional streets needed to serve this development would likely utilize 390 acres by the year 2000. Railroads are not expected to require additional land during the planning period.

THOROUGHFARES

A community must continually upgrade its system of major streets to provide adequate traffic circulation for a growing population. Following is an analysis of Lebanon's street system, along with an indication of future needs. The existing thoroughfare network is graphically depicted on Illustration 2.

Thoroughfare Classification

Streets in the Lebanon Urban Area have been classified on the basis of specific function, and the type and volume of traffic on each street. Streets with higher traffic volumes are classified as principal arterials, whereas those with intermediate and lower volumes are classified as minor arterial and collector, respectively. The following definitions describe the functions of these classifications.

Arterials--Facilities which provide for major traffic movements within and through the City. The first and most important function of arterials is to move vehicles; land access is a secondary function.

Collector Streets--Facilities which serve to drain traffic off local streets, leading the traffic to arterials or to local generators such as schools, shopping centers, or community centers. Land access is a secondary function of collectors.

Local Streets--Facilities which serve to provide access to property abutting the public right-of-way. Moving traffic is a secondary function. Even though local streets comprise a large percentage of the city's street mileage, they carry, in relation to their length, a small portion of the vehicle miles traveled and are thus not considered a part of the major street network.

Thoroughfare Network and Traffic Flow

The existing street system in the Lebanon Urban Area totals over 170 miles. Arterials account for more than 37 miles, or 21.9 percent of the total street network. Collectors make up over 25 miles, or 14.1 percent of the system, and local streets amount to over 107 miles or 63 percent.

Traffic volumes, which provide a description of the magnitude of the vehicular movements, indicate the relative importance and utilization of streets and their relationship to distributions of population and land use.

Principal arterial routes in the urban area include West Main Street (U.S. Highway 70 North), Cumberland Street (U.S. Highway 231 and State Route 10), Interstate Highway 40, U.S. 70 By-Pass (High Street and State Route 24 By-Pass) and State Route 26 - U.S. Highway 70 South.

High volumes of local traffic are generated along West Main Street by adjacent densely developed residential neighborhoods, the industrial subdivision, highway business areas, and the Central Business District. Additional volumes are generated by through daily traffic movements between Lebanon and Metropolitan Nashville. Average Daily Traffic (ADT) compiled in the 1980 Lebanon Transportation Plan revealed a peak volume of 14,900 on this street in the vicinity of Castle Heights Academy--only Interstate Highway 40 had a higher traffic volume in the urban area. The ADT counts, however, indicate that substantial through traffic movement between Lebanon and Nashville is handled on Interstate Highway 40 which reduces east-west traffic flows on West Main Street. In addition, further relief is provided by U.S. Highway 70 By-Pass to the north.

The most heavily traveled principal arterial in the area, Interstate 40, replaced U.S. Highway 70 as the major transportation link between Nashville to the west of Lebanon and Knoxville to the east. Major regional traffic flows into and out of Metropolitan Nashville, therefore, do not significantly contribute to traffic congestion on the local street system.

Cumberland Street (U.S. Highway 231) serves as the principal arterial providing north-south access for Lebanon. The southerly segment of this street is the City's major access link to Interstate Highway 40 to the south, which accounts for much of the traffic it accommodates. Business development near the U.S. 231-Interstate 40 Interchange, however, continues to account for an increasing volume of traffic along South Cumberland Street.

The final routes in the system classified as principal arterials include U.S. Highway 70 By-Pass (High Street and State Route 24 By-Pass) and State Route 26-Highway 70 South.

The By-Pass route serves to reduce traffic congestion in the CBD by routing U.S. Highway 70 traffic around the densely developed downtown area. This route, as well, facilitates the movement of traffic from east Lebanon to the U.S. Highway 70-Interstate 40 Interchange, and to Carthage and Watertown. It also provides alternative access to the Lebanon Industrial Park for heavy trucking activity and industrial workers. ADT counts approach 10,000 along the By-Pass between the Industrial Park and North Cumberland Street. Increasing local traffic

congestion in the CBD and along West Main Street has resulted in significantly increased utilization of the By-Pass over the past 10 years. The By-Pass joins with State Route 26-U.S. Highway 70 as access to Interstate 40 and points beyond to the southeast.

Streets in the major thoroughfare system classified as minor arterials, which carry intermediate volumes of traffic, include the following: Cedar Street-Hartsville Pike (State Highway 141); East Main Street; Spring Street; and segment of Leeville Pike.

Hartsville Pike provides the primary access from the northeasterly segment of the urban area to downtown Lebanon, while Cedar, East Main and Spring Streets serve as secondary major routes to aid local traffic circulation in the densely developed areas within and adjacent to downtown. The street segments including Winwood Road and Leeville Pike forms the primary access to the southwest quadrant of the urban area.

The collector streets in Lebanon accommodate traffic around the public square, serve as alternate routes, or serve as feeder routes for the principal and minor arterial streets. Presently East Forest Avenue, College Street-Cainsville Pike, East Spring Street, Park Avenue, McGregor Street-Manier Street-Bluebird Road, Trousdale Ferry Pike (State Highway 141), West Gay Street, Maple Street-Old Murfreesboro Road, Franklin Pike, Holloway Drive, Castle Heights Avenue, Fairview Avenue-Greenwood Avenue-Leeville Pike, Westhill Drive-Hickory Ridge Road-Blair Lane, Hartman Drive and Coles Ferry Pike serve as collector thoroughfares. ADT volumes on these streets vary from 500 on outlying segments of Old Murfreesboro Road and Bluebird Road to in excess of 4800 on Hartman Drive.

Efficient traffic circulation through the thoroughfare network of the Lebanon Urban Area appears to be handicapped mostly by a lack of lateral connections between the major radial highways and by inadequate rights-of-ways and pavement widths on particular road segments.

Projected Thoroughfare Needs

Future volumes of traffic likely to occur in the urban area depend not only on future amounts of population and employment but also on the distribution of residential and nonresidential land in the area. Assuming that the bulk of the community's population growth will occur in the northerly and westerly portions of the urban area and that most of the additional employment opportunities will be dominantly located in the central portion, it is possible to project the amount of average daily traffic which can be expected by the year 2000 if no changes are made regarding the major thoroughfare network.

Existing ADT volumes on arterials and collectors have been generally discussed in the analysis. These and projected future volumes are shown on Illustration 6. The magnitude of increases likely to occur on existing streets by the year 2000 is as follows:

Principal Arterials:

Interstate 40 -- Projected increases in traffic volumes range from 75 to 84 percent.

West Main Street -- Projected increases range from 57 to 208 percent.

U.S. 70 North -- Projected increases range from 65 to 82 percent.

U.S. 70 By-Pass -- Projected increases range from 57 to 172 percent.

Cumberland Street -- Projected increases range from 52 to 146 percent.

U.S. 70 South (State Route 26) -- Projected increases range from 80 to 100 percent.

Minor Arterials:

East Main Street -- Projected increases range from 35 to 40 percent.

Hartsville Pike (State Highway 141) -- Projected increases range from 59 to 200 percent.

West Spring Street -- Projected increases range from 19 to 32 percent.

Winwood Road-Hickory Ridge Road-Crowell Lane-Leeville Pike -- Projected increases range from 76 to 367 percent.

Traffic volume increases on all of these streets would be sufficient to reclassify these routes as principal arterials by the year 2000.

Collector Streets:

East Forest Avenue -- Projected increases in traffic volume amounts to 36 percent.

College Street-Cainsville Pike -- Projected increases in traffic volumes range from 60 to 106 percent.

East Spring Street -- Projected increases amount to 60 percent.

Park Avenue - Projected increases amount to 47 percent.

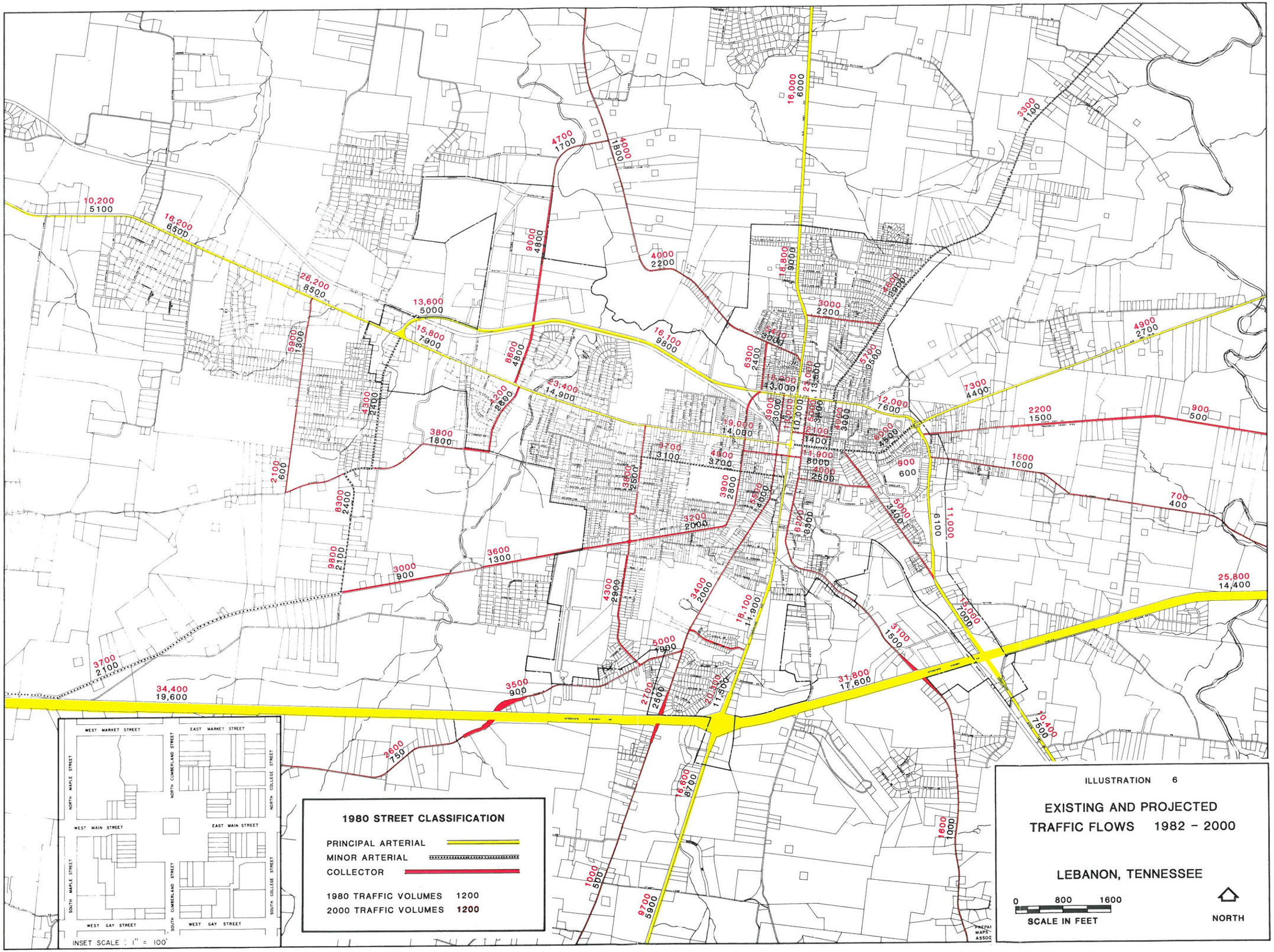
McGregor Street-Manier Street-Bluebird Road -- Projected increases range from 50 to 75 percent.

ILLUSTRATION 6

EXISTING AND PROJECTED TRAFFIC FLOW

1982 - 2000

LEBANON, TENNESSEE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5000
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9800
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3400
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6100
3100
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31,800
17,600
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10,000
25,800
14,400
10,400
7500
1600
1000
1000
500
9700
5900
16,800
8700
INSET SCALE : 1" = 100'
WEST MARKET STREET
EAST MARKET STREET
NORTH MAPLE STREET
NORTH CUMBERLAND STREET
NORTH COLLEGE STREET
WEST MAIN STREET
EAST MAIN STREET
SOUTH MAPLE STREET
SOUTH CUMBERLAND STREET
SOUTH COLLEGE STREET
WEST GAY STREET
WEST GAY STREET
1980 STREET CLASSIFICATION
PRINCIPAL ARTERIAL
MINOR ARTERIAL
COLLECTOR
1980 TRAFFIC VOLUMES 1200
2000 TRAFFIC VOLUMES 1200
ILLUSTRATION 6
EXISTING AND PROJECTED
TRAFFIC FLOWS 1982 - 2000
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH

Trousdale Ferry Pike (State Highway 141) -- Projected increases range from 46 to 80 percent.

West Gay Street -- Projected increases amount to 60 percent.

East Market Street -- Projected increases amount to 33 percent.

Maple Street-Old Murfreesboro Road -- Projected increases range from 30 to 100 percent.

Holloway Drive -- Projected increases amount to 100 percent.

Franklin Pike -- Projected increases range from 163 to 940 percent.

Castle Heights Avenue -- Projected increases range from 48 to 52 percent.

Fairview Avenue-Greenwood Avenue-Leeville Pike -- Projected increases range from 40 to 233 percent.

Westhill Drive - Hickory Ridge Road-Blair Lane -- Projected increases range from 61 to 353 percent.

Hartman Drive -- Projected increases range from 79 to 176 percent.

Coles Ferry Pike -- Projected increases range from 80 to 122 percent.

Greatly increased traffic volumes on segments of a number of these streets such as College Street, Maple Street, Franklin Pike, East Market Street, Greenwood Avenue, Blair Lane, Hartman Drive and Coles Ferry Pike would also require reclassification of these routes as minor or principal arterials.

A number of streets presently in the local street network would increase in traffic volumes sufficiently to change their classification to collector streets.

The substantially increased traffic volumes indicated above were projected by the Tennessee Department of Transportation on the basis of increased trips for shopping, work, and similar activities likely to be generated due to growth in local population and employment by the year 2000 and the future spatial distribution of land uses in the area. Knowledge of existing and future traffic volumes and movements provides the basis for establishment of a thoroughfare system capable of accommodating existing and future traffic in the urban area.

These greatly increased traffic volumes are reflected in the following data which indicates a comparison of existing and future vehicle miles of travel per day on the Lebanon street system by classification of street:

Street Classification	Vehicle Miles of Travel 1980	2000
Interstate	120,486	214,000
Principal Arterial	165,909	300,500
Minor Arterial	22,929	45,400
Collector	46,774	89,400
Local	57,678	83,300
Total	413,776	732,600

Source: Tennessee Department of Transportation, Office of Research and Planning.

COMMUNITY FACILITIES

In the following paragraphs, Lebanon's community facilities in each of five (5) major groups are examined to identify the capacity of existing facilities to meet current needs and the additional capacity necessary to meet future demands. Existing community facilities are graphically depicted on Illustration 7.

Transportation

Airport: The Lebanon Airport is located in the southwest section of the City between Leeville Pike and Franklin Road, just north of Interstate Highway 40. The airport has a 3,500 x 75 foot paved runway capable of accommodating planes up to and including a DC-3 and an adjacent 3,500 x 30 foot paved taxi strip, and a 2,200 x 200 foot sod runway. The airport is located on a site of approximately 100 acres. Buildings consist of two (2) metal hangars 100 x 80 feet in size, and a block and steel headquarters building containing an operations office, living quarters, classroom, waiting room and shop. The airport, which is under the direction of a fixed-base operator under contract with the City of Lebanon, is equipped with unicom radio service with a transmission range of up to 100 miles. Adequate parking facilities include 18 marked and 40 unmarked spaces on a paved surface.

ILLUSTRATION 7

COMMUNITY FACILITIES

1982

LEBANON, TENNESSEE

EDUCATION FACILITIES

1. BYARS-DOWDY SCHOOL
2. HIGHLAND HEIGHTS SCHOOL
3. McCLAIN ELEMENTARY SCHOOL
4. MARKET STREET SCHOOL
5. SOUTHSIDE SCHOOL
6. CARROLL-OAKLAND SCHOOL
7. SAM HOUSTON SCHOOL
8. WALTER J. BAIRD JUNIOR HIGH
9. LEBANON HIGH SCHOOL
10. LEBANON-WILSON COUNTY LIBRARY

ADMINISTRATIVE AND HOUSEKEEPING FACILITIES

11. CITY HALL
12. POLICE DEPARTMENT
13. FIRE DEPARTMENT
14. WATER TREATMENT FACILITIES
15. WASTEWATER TREATMENT FACILITIES
16. CITY SERVICE BUILDING
17. WILSON COUNTY COURTHOUSE
18. WILSON COUNTY JAIL
19. BADDOR BUILDING(COUNTY OFFICES)
20. SANITARY LANDFILL

TRANSPORTATION

21. LEBANON AIRPORT
22. MUNICIPAL PARKING AREA

HEALTH FACILITIES

23. McFARLAND HOSPITAL
24. JAMES ROBERTSON HEALTH CENTER
25. UNIVERSITY MEDICAL CENTER
26. MARGIE ANNA NURSING HOME
27. QUALITY CARE AND CEDARS NURSING HOME
28. WILSON COUNTY MENTAL HEALTH CENTER

RECREATION FACILITIES

29. WILLIAM D. BAIRD MUNICIPAL PARK
30. EASTSIDE PARK
31. ELKINS PARK
32. SPRING STREET MINI-PARK
33. WARD AGRICULTURAL CENTER
34. CEDARS OF LEBANON STATE PARK

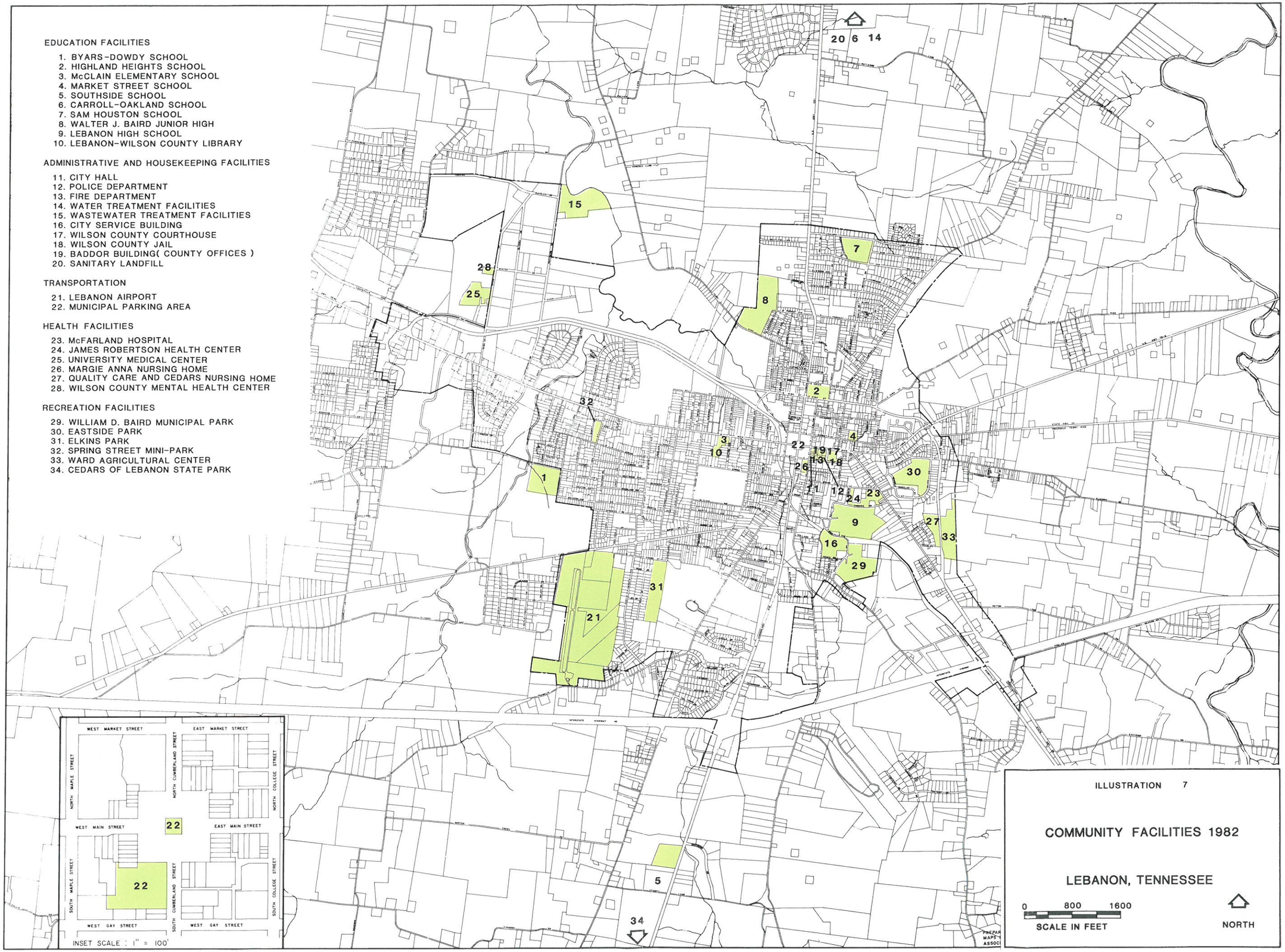


ILLUSTRATION 7

COMMUNITY FACILITIES 1982

LEBANON, TENNESSEE

0 800 1600

SCALE IN FEET

NORTH

The present runway, hangars and headquarters building were constructed in the 1950's. One hangar was added in the 1960's. Improvements between 1979 and 1981 included repaving runway, installing french drain along runway, site fencing at the south end, additional tie downs, add a beacon light and replacement of runway lights. The condition of existing facilities is excellent.

Currently scheduled improvements for 1983 include installation of a 10,000 gallon AV gas tank to replace the existing 2,000 gallon tank, seal runway and apron, pave additional apron area, and recoat the taxiway. Anticipated needs over the next five (5) years include installation of a tank for jet fuel, construction of an additional tee-hangar and tie down space, and construction of an additional hangar. A longer term need includes extension of the runway by an additional 1500 feet.

Municipal Parking Area: There are two (2) public off-street parking areas located in downtown Lebanon. Sixty-four off-street parking spaces are provided in the parking "island" in the center of the square, while 76 spaces are provided in the county-owned parking lot at the southwest corner of the square. Both areas have good access but the square area is generally congested due to heavy through traffic volumes.

An additional 40 on-street spaces are available in the immediate square area and 54 more on-street spaces are available in the Central Business District along major access streets. As previously indicated, these on-street spaces, which produce parking maneuvers conflicting with traffic flows, tend to further intensify congestion in the Central Business District. Additional off-street parking area is required to meet current and future parking needs in the downtown area.

Health

James Robertson Health Center: The James Robertson Health Center, located at East Spring Street and School Drive, serves as the public health center for Wilson County. The facility was constructed in 1961 with an office wing added in 1974, and is in good condition. The building has 6,000 square feet of floor area with offices for the County Health Officer, two (2) County Sanitarians, the Chief Nurse, and a three (3) member clerical staff. Other personnel includes four (4) nurses, one nursing aide, one family planning nurse and one family planning aide. The three (3) acre site provides 18 off-street parking spaces and approximately eight (8) additional spaces are available on-street.

Present needs include the addition of personnel to allow for extending the hours of available service, and the establishment of satellite facilities for better service to areas outside of Lebanon. In addition, there is an anticipated need to double existing building space and personnel by 1990. In order to accommodate this increased building space and additional parking space required, a larger site must be acquired.

McFarland Hospital: McFarland Hospital is located on East Spring Street at Park Avenue on a 5.7 acre site. The original unit, which contained 10 rooms, was constructed in 1917. With periodic expansions, the Hospital had a total of 108 rooms in 1971. With purchase of the facility in 1973 by Humana Incorporated, the number of rooms was expanded to 137 and existing facilities were renovated. Improvements also included the addition of an emergency room, labor and delivery suite, two (2) major operating rooms, cystography room, recovery room, Respiratory Therapy Department, and Physical Therapy Department. Laboratory capabilities were expanded in 1975, a third operating room added in 1980, and an addition 22 bed capacity was provided in 1981-82 for a total of 159 beds at present. The facilities are in good condition.

McFarland Hospital provides general acute health care services with a full-time staff of 288 persons and part-time staff of 96 persons. Staffing includes the Hospital Administrator and five (5) assistant administrators; 42 full-time registered nurses and 20 part-time; 49 full-time licensed practical nurses and 15 part-time; 38 full-time ancillary nursing personnel and 21 part-time; 13 other nursing service personnel and five (5) part-time; one medical record administrator and seven (7) medical record technicians; three (3) full-time licensed pharmacists and seven (7) part-time; three (3) pharmacy technicians; eleven (11) full-time medical technologists and five (5) part-time; three (3) other full-time laboratory personnel and one part-time; one full-time dietitian and one full-time dietetic technician; five (5) full-time radiographers and five (5) part-time, including one (1) radiologist and one (1) pathologist under contract; one (1) full-time physical therapist and one (1) part-time; two (2) full-time physical therapy assistants and one (1) part-time; five (5) full-time respiratory therapists; five (5) full-time respiratory therapy technicians and one (1) part-time; two (2) medical social workers; and, a total of 89 other full-time and 14 part-time personnel including housekeeping and clerical support staff.

Needs anticipated within three (3) years include addition of a professional office building, expansion of ancillary facilities, and expansion/addition of one general surgical operating room. Plans for these improvements are now being prepared. Estimated costs exceed 2.0 million dollars.

Other needs anticipated by the year 1990 include provision of 25 additional beds and addition of a specialized operating room.

University Medical Center: The University Medical Center is located at 1711 Baddour Parkway on an 11 acre site. The facility was constructed in 1977-78, with a nursing home addition constructed in 1981. Capacity includes 115 hospital beds for short-term general acute health care and 24 beds for long-term nursing home care. The building and facilities are in excellent condition. On-site parking includes 372 paved/marked spaces and 150 spaces in a graveled, unmarked parking area.

Hospital personnel includes a full-time staff of 210 persons and part-time staff of 22 persons. Staffing includes the hospital administrator, an administrative secretary/director of personnel, and associate administrator/director of finance; a nursing staff of 105 persons including the director, 16 registered nurses, 34 licensed practical nurses and 46 nursing aides; a business office staff of 17 persons; an accounting/purchasing staff of 10 persons; a maintenance/security staff of 10 persons; a radiology staff of nine (9) persons; a laboratory staff of 12 persons; a pharmacy staff of six (6) persons; a housekeeping staff of 21 persons; a respiratory therapy staff of eight (8) persons; a physical therapy staff of five (5) persons; a dietary staff of 17 persons; and, an operating/recovery room staff of nine (9) persons.

Present needs include additional ancillary areas, and periodic shortage of nursing and physical therapy personnel. Current improvements underway at a cost of 3.25 million dollars, expected to be completed in 1983, include the addition of space for OB-GYN, FX ICC-CCU, OR, dietary, and purchasing. Over the next few years additional physicians will be recruited and the hospital will draw on patient care requiring more specialized care. An expansion of beds to a total of 250 is anticipated for the period between 1990-1995.

Margie Anna Nursing Home: The Margie Anna Nursing Home, an intermediate health care facility, is located on South College Street on a site of .53 acres. The facility contains 22,880 square feet of space and is in good condition. The 46 bed facility was constructed in 1960, and no expansion has occurred since that time. Fifteen off-street parking spaces are provided on the site.

Nursing home personnel include a full-time staff of 27 persons and a part-time staff of 14 persons. Staffing includes the nursing home administrator, activity coordinator, seven (7) licensed practical nurses, 19 nursing aides, seven (7) dietary staff members, and six (6) other staff members in housekeeping, maintenance and clerical services.

There is a current need for additional off-street parking which cannot be accommodated due to the small site. No expansions or improvements are presently planned.

Quality Care and Cedars Nursing Home: This facility is located on the U.S. Highway 70 South By-Pass across from the Ward Agricultural Center on a 6.69 acre site. Quality Care provides 160 beds for intermediate health care services while Cedars Nursing Home provides 60 beds for skilled nursing home care services. The original facilities were constructed in 1977 and expanded in 1982. Cedars Nursing Home was relocated to the facility in January 1983. The condition of the building and facilities is excellent. One hundred and twenty off-street parking spaces are provided.

Cedars Nursing Home is operated by a full-time staff of 57 persons and part-time staff of 11 persons. Full-time personnel include the Director of Nursing, seven (7) registered nurses, four (4) licensed

practical nurses, 31 nursing assistants, five (5) housekeeping staff members, activity director, social worker and physical therapist. Part-time staff includes a medical director, nine (9) nursing assistants, and a registered nurse.

There are no existing needs or problems regarding building space, facilities, equipment or site parking, and there are no scheduled or proposed improvements or expansions over the immediate future. A need for an addition of 30 beds for Cedars Nursing Home and 60 beds for Quality Care is anticipated by the period 1992-1995.

Wilson County Mental Health Center: The Wilson County Mental Health Center is located on Winter Drive, north of the U.S. Highway 70 By-Pass and west of the Industrial Park, on a two (2) acre site. The building is in good condition and no expansions have occurred since the original construction in 1979. The building has approximately 6,000 square feet of floor area, and 32 off-street parking spaces are provided on the site.

The Center is a community-oriented, non-profit, locally directed organization which offers professional counseling services to the citizens of Wilson and Trousdale Counties. Branch offices are located in Mt. Juliet and Watertown. The Center operates on a 24-hour schedule providing a range of mental health services for children, adults, families and older persons including full-time hospitalization, outpatient care, partial hospitalization, emergency service, consultation and education, screening services, follow-up care and transitional services.

The Center is operated by a staff of 18 persons including Executive Director, Administrative Secretary, Building Engineer, Office Manager, Clinical Director, cashier/receptionist, medical records technician, client accounts clerk, A & D Coordinator, C & Y Coordinator, Emergency Services Coordinator, Forensics Coordinator, General Audit Coordinator, Geriatrics Coordinator, C & E Coordinator and aides for day treatment and aftercare.

No existing needs or problems are identified and no improvements or expansions are currently scheduled or proposed. Near future proposed improvements include the renovation of the building interior spaces to meet additional program capacity needs. The extension of services into the community through additional satellite facilities is also anticipated within the next five (5) year period.

Administration and Housekeeping

City Hall: The Lebanon City Hall is located at South College and East Gay Streets. It contains the offices of the Mayor, Commissioner of Finance, and Federal Grants Coordinator, along with all facilities for bookkeeping, tax collection, and for billing and receiving of monies for the various utilities and other proprietary functions of the City.

The City Hall building, originally constructed in 1963, is situated on a .61 acre site which provides adequate off-street parking for 38 vehicles. No expansions have been undertaken since 1963. The 60 foot by 90 foot building is constructed of brick, and considered to be in good condition.

There are presently no scheduled or proposed improvements and the building is considered adequate over the planning period. A need for additional storage space, however, was identified which may be considered in the near future.

Police Department: The municipal police department is located at the intersection of East Gay and Stone Streets in a building used jointly by the police and fire departments, and city court. The structure was constructed in 1965 and is in sound condition. The Police Department utilizes approximately 4,900 square feet of the 90 foot by 165 foot building which is located on a .91 acre site. On-site parking is provided for 10 police cars and adjacent off-street parking of 100 spaces is provided for combined police, fire department and court parking.

The Lebanon Police Department staff includes the Chief, two (2) Det. Ft., two (2) Lieutenants, four (4) Sargents, records secretary, 17 patrolmen and 22 auxiliary policemen. The department has nine (9) radio-equipped cars.

An accepted standard for police protection for a population size commensurate with that of Lebanon is two (2) policemen for every 1,000 population. This standard is met if considering only the city population of just under 12,000 people; however, the entire urban area includes almost 19,000 people. Additional building space is already needed, and the department anticipates the need to double the existing space and number of personnel over the next five (5) year period to maintain adequate service.

Fire Department: The main fire station on Gay Street occupies approximately 9,800 square feet of the 90 foot by 165 foot building shared with the police department. Condition of the building, off-street parking and the site have been previously discussed.

The second fire station on Hartman Drive, constructed in 1964, comprises approximately 5,300 square feet of floor area and is in good condition. Approximately 25 off-street parking spaces are provided. Both stations house space for storage and maintenance of equipment, sleeping quarters, and office space.

The fire department staff consists of 26 full-time personnel including the Chief, Assistant Chief, six (6) captains, six (6) engineers, and 12 firefighters. Personnel work on 24 hour shifts and are off 48 hours, with each staff member averaging a 56 hour week. Firefighting equipment consists of six (6) trucks including two (2) 1200 GPM pumpers, one (1) 1000 GPM pumper, two (2) 750 GPM pumpers, and one antique truck for show purposes. Four (4) of the engines are at the Downtown Station and two (2) at the Hartman Drive Station. The

Department now maintains a Class 6 fire insurance rating. To maintain this rating, Lebanon's fire protection facilities must grow proportionate to the population growth and service area expansion.

As additional territory is added to the city through annexation over the next five years, additional equipment and manpower will be required to accommodate the expansion. Also the City now needs to add a piece of rescue equipment--a snorkel or ladder truck. There is also a need over this short range time period to provide additional rescue equipment and to lower the fire insurance rating, which will require water system improvements. In addition, a third fire station will be required in West Lebanon by 1987-1990, including necessary manpower and equipment.

Wilson County Courthouse: The Wilson County Courthouse, located on East Main Street, was completed in 1968. This modern and functional building is located on a 2.7 acre site and contains 37,170 square feet of floor area which houses the offices of the County Executive, Tax Assessor, County Building Inspector, Lebanon-Wilson County Planning Department, County Election Commission, Agricultural Extension Service, Circuit Court Clerk, Clerk and Master, County Clerk, Register of Deeds, Veterans Service, TBI, and Circuit Judge. In addition, there are two (2) courtrooms upstairs and one downstairs.

Off-street parking area serves the Courthouse as well as the County Jail facilities and includes 199 paved spaces around the Courthouse, and 70 spaces in a paved area across Stone Drive from the Courthouse.

The building is in excellent condition, however, existing needs include the provision of additional office space, either through expansion of the existing courthouse, or a new building off-site. This facility otherwise appears adequate for the planning period.

The Baddour Building, which also houses County offices, is located on East Main Street. This is an older building providing approximately 570 square feet for offices of the County Water and Wastewater Authority, the Attorney General, and the Alcohol and Drug Commission. A storage building and garage containing 924 square feet is located at the rear of the .24 acre site. Present needs identified include a need to rehabilitate the Baddour Building and storage/garage building within the next three (3) years.

Wilson County Sheriff's Department and Jail: This facility shares the Wilson County Courthouse site and was constructed at the same time. The jail was expanded by 668 square feet in 1981, bringing the total floor area to 5,933 square feet. The facility contains offices, prisoner cells, and space for line-up, storage, kitchen facilities and resident quarters.

The Sheriff's Department and Jail are operated by a staff of 27 persons including the Sheriff, Captain, 14 patrolmen, two (2) investigators, four (4) dispatchers, the jailer, two (2) guards, clerk and cook. Existing personnel needs identified include the need for five (5) more patrolmen, two (2) investigators and one records clerk.

Equipment includes five (5) marked patrol units, five (5) unmarked patrol units, one (1) prisoner bus, 11 radios and six (6) walkie talkies. Four (4) additional patrol cars are presently needed.

Existing needs identified with regard to building space and facilities include a closed-in dispatcher office (communications), office space extended for the detective division and records, an interrogations room, space for mugging and finger-printing, a property room, observation cameras, locker room for officers with showers and first aid facilities, security doors for exit and entrance, fenced in exercise area, additional jail space to comply with state minimum standards, and an outside gas room constructed separately from the main building.

Additional space, facility and equipment needs within the next five (5) year period include a juvenile building separate from the adult facility to comply with state standards, an expanded work house, a light auto maintenance building, five (5) additional patrolmen, two (2) more patrol units, specialized equipment, and a four-wheel drive vehicle.

Long range considerations include the need to expand the staff as required to meet the law enforcement needs paralleling county population growth.

Solid Waste Disposal: Lebanon utilizes the County sanitary landfill located on Dump Road off Hunters Point Pike, north of the city. The landfill is on a 33.7 acre site, and the City has option on an additional 21.02 acres. Facilities and equipment include a 50 foot by 100 foot shop building for storage of tools required for equipment maintenance, a compactor, a D8 bulldozer, a 250 loader, a tandem dump truck, and a washer mounted on a 3/4 ton truck. Personnel includes a supervisor, one operator and two (2) laborers.

Scheduled improvements include seeding of area already filled. An existing need includes the need for a new truck or scraper and the need for additional equipment is anticipated within the next five (5) years.

Wilson County is presently exploring the possibility of transporting solid waste to the Gallatin Thermal Plant. This will require construction of a transfer station in the local area. If this is accomplished, the life of the present landfill will likely extend beyond the planning period to the year 2010. If the Gallatin facility is not utilized, however, the present facility will reach capacity by 1990.

City Service Building: The City Service Building is located on Park Drive in the southeastern part of the City on a three (3) acre site. The brick facility is in sound condition and consists of approximately 2,400 square feet of floor area. Space is provided for the Commissioner of Public Works, the Deputy Commissioner/City Engineer, kitchen facilities, meeting room, and warehouse. Adequate off-street parking is also provided. The remaining 2.5 acre site is secured by a cyclone fence and contains garages and maintenance facilities for all the City's rolling stock. Additional storage space is available as required.

No existing problems and needs are identified, and no improvements are proposed or scheduled. The facility is considered adequate for the planning period.

Water System: Lebanon's water system is municipally owned and provides water, drawn from the Cumberland River, to the bulk of the incorporated area as well as to a significant portion of developed areas on the City's fringe. The trunk lines are underground and consequently have no significant impact on land use.

Illustration 8 depicts the current line capacity and distribution of the water system.

The filtration plant is located at Hunters Point, five (5) miles north of Lebanon along U.S. Highway 231. The plant site consists of approximately 10 acres and is situated on the south bank of the Cumberland river at the end of Nathan J. Harsh Bridge. The site is adequate and the plant is in sound condition. The water plant was originally constructed in 1931 but was expanded and improved in 1960 and again in 1972. The design treatment capacity of the plant is 6.0 million gallons per day. Presently the pumps operate on a 12 hour basis distributing water to 5,739 customers. Average daily usage is 3.75 million gallons, while peak daily usage is 4.25 million gallons.

The total water storage capacity of the Lebanon system is 4.0 million gallons. This total includes 1.0 million gallon storage capacity at the plant; a 1.5 million gallon storage facility near East High Street; a .5 million gallon facility in the Industrial Subdivision; and, a 1.0 million gallon facility at Four Mile Hill within the Gladeville Utility District area.

Based on population growth in the Lebanon Urban Area, the number of water customers on the water system can be projected to approximately 8,500 by the year 2000. The present treatment facilities are expected to serve this growth over the planning period. Expansion of the distribution system will be required commensurate with population increases and continued development of the urban fringe areas.

A more immediate concern involves the need for additional water storage capacity. Present storage amounts to slightly less than a 24 hour supply, which is required to meet State minimum standards.

ILLUSTRATION 8

WATER SYSTEM GENERAL SERVICE AREA

1982

LEBANON, TENNESSEE

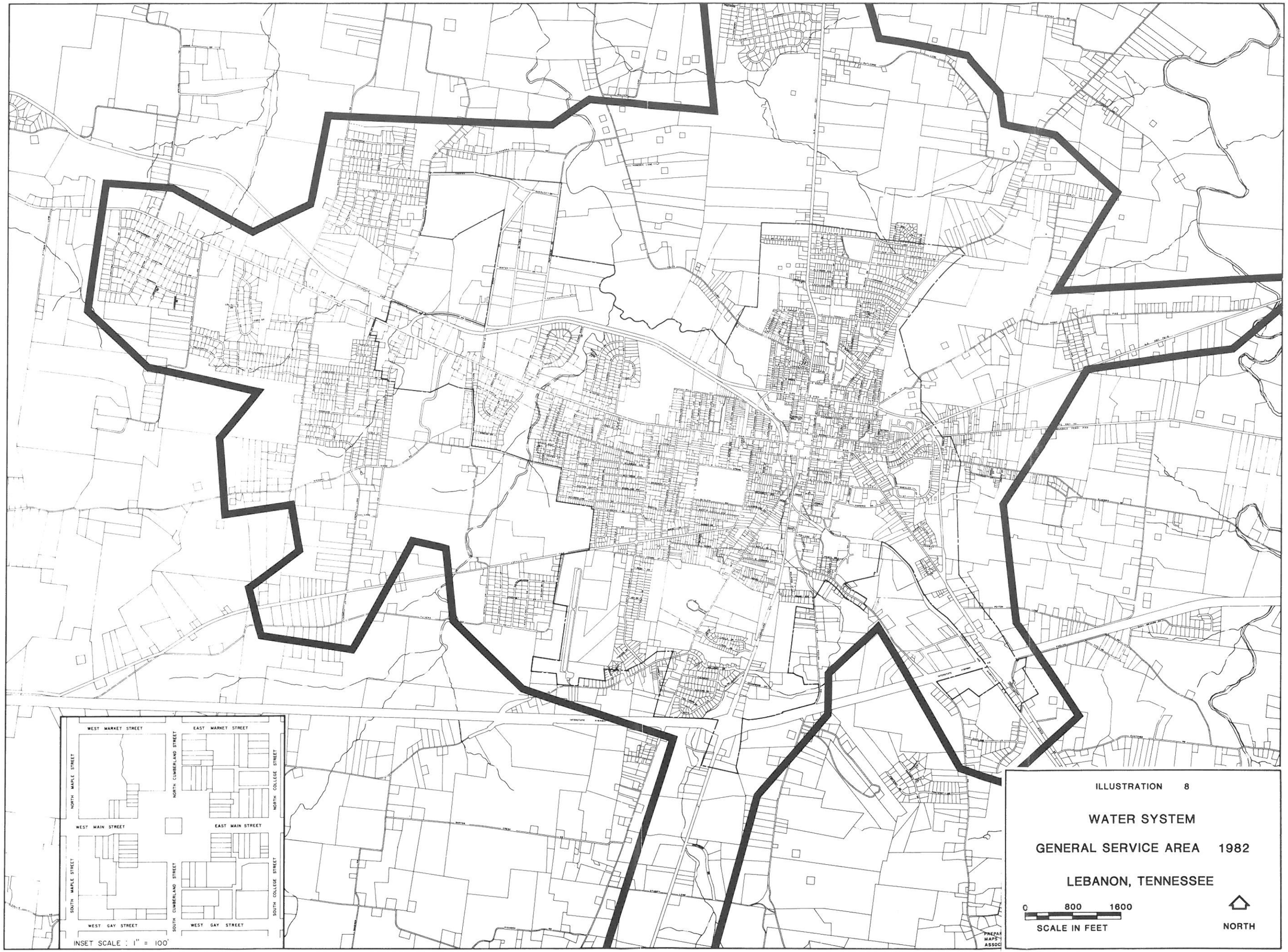


ILLUSTRATION 8

WATER SYSTEM

GENERAL SERVICE AREA 1982

LEBANON, TENNESSEE

0 800 1600

SCALE IN FEET

NORTH

Construction of an additional 2.0 million gallon storage facility within the next two (2) years will assure adequate fire flows, enhance system pressures, and keep the system in compliance with State minimum requirements. In addition, to provide for future storage needs through the planning period an additional 2.0 million gallon facility should be constructed by 1990.

Wastewater System: Approximately 95 percent (3,972 customers) of the population residing within Lebanon's corporate limits is served by sanitary sewers. The geographic extent of sewer system coverage is shown on Illustration 9. The system works primarily by gravity flow, however, nine (9) lift stations are situated in various sections of the City.

The wastewater treatment plant, a trickling filter system, is located in the northwest section of the City on a 26 acre site near the intersection of Hartmann Drive and Quarles Drive adjacent to Barton's Creek. The facility was designed for an average wastewater flow of 2.0 million gallons per day and was placed into operation in 1962. Presently the average daily treatment amounts to 3.1 million gallons with peak daily treatment of 10.93 million gallons. The plant effluent is discharged through an outfall line to Old Hickory Reservoir.

Existing treatment facilities are overloaded and do not meet effluent discharge standards of the Tennessee Department of Public Health (TDPH) and the Environmental Protection Agency (EPA). Also there is a pressing need to extend sanitary sewer services to a number of residential and commercial areas that have failed septic tank and absorption field systems. Because of these problems, TDPH imposed a sewer connection moratorium on the Lebanon system in 1972 which has resulted in severe restriction of growth and development for the City and contiguous territory since that time.

To correct current system problems and remove the TDPH moratorium, the City is now finalizing the package of required financing from EPA and other sources to construct the following:

1) Additions and modifications to the wastewater treatment facility;

2) Barton's Creek interceptor sewer;

3) Blair Lane interceptor sewer;

4) Sinking Creek interceptor sewer; and,

5) Watertown Highway interceptor sewer.

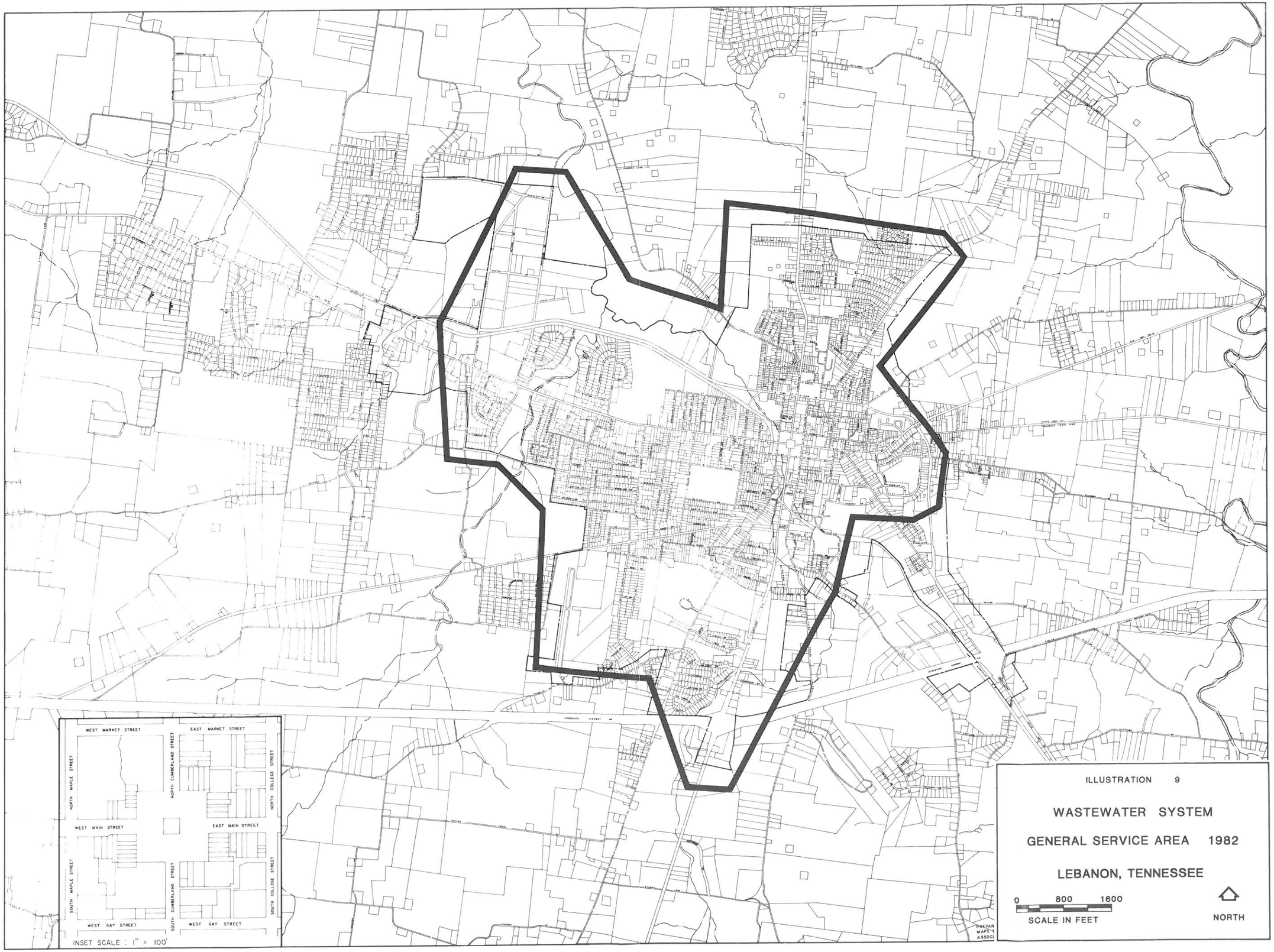
With the proposed wastewater treatment facility improvements, treatment capacity will be expanded to 4.72 million gallons per day, and is expected to serve City needs to the design year 1990.

ILLUSTRATION 9

WASTEWATER SYSTEM GENERAL SERVICE AREA

1982

LEBANON, TENNESSEE


WEST MARKET STREET
EAST MARKET STREET
NORTH MAPLE STREET
NORTH CUMBERLAND STREET
NORTH COLLEGE STREET
WEST MAIN STREET
EAST MAIN STREET
SOUTH MAPLE STREET
SOUTH CUMBERLAND STREET
SOUTH COLLEGE STREET
WEST GAY STREET
WEST GAY STREET
INSET SCALE : 1" = 100'
ILLUSTRATION 9
WASTEWATER SYSTEM
GENERAL SERVICE AREA 1982
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH
PREPAR
MAPS I
ASSOCI

Additional capacity will be required to meet treatment needs for the balance of the planning period to the year 2000. To accommodate additional treatment capacity expansion, all currently scheduled wastewater transmission facilities are designed for the year 2000 peak flow of 12.43 million gallons per day.

In addition, the expansion of collection lines to other presently unsewered fringe area development will be required with subsequent City growth through annexation following completion of the currently scheduled improvements. Additional collection lines will be required to serve future growth over the planning period as the City takes in developing fringe areas.

Recreation

William D. Baird Municipal Park: William D. Baird Municipal Park is located in the southern section of Lebanon behind the Lebanon High School and north of Cainsville Road. Approximately 45 acres of the 62 acre site are developed. Developed facilities include five (5) baseball diamonds, three (3) tennis courts, a supervised playground and running track. Two (2) T-ball courts were also recently completed by the City. The site is lighted and off-street parking is adequate.

Currently identified needs for this park include two (2) additional lighted, fenced tennis courts, two (2) lighted handball courts, four (4) picnic tables and grills, and landscaping measures. A fifty percent matching grant was recently requested for these facilities and improvements through the Heritage Conservation and Recreation Service (HCRS), U.S. Department of Interior. The grant program is administered by the Tennessee Department of Conservation.

Additional needs identified over the next five (5) years include development of another tennis court, more youth sports facilities, and a sports field for football and soccer.

Eastside Park: Eastside Park is located on 15 acres in the public housing site. Development consists of one baseball diamond and open playground. Only on-street parking area is available.

Presently identified needs for Eastside Park include development of fifty off-street parking spaces, two picnic tables and grills and landscaping. Fifty percent matching grant funds have also been requested through the HCRS to provide for these facilities and improvements.

Elkins Park: Elkins Park is located on Hobbs Avenue behind the cemetery on a three (3) acre site. Existing development consists of one baseball diamond. Off-street parking is inadequate.

Currently identified needs for the park include a lighted, fenced softball field with bleachers and a restroom/concessions building; a

fenced tot play area; four (4) picnic tables and grills; landscaping; and, provision of 50 off-street parking spaces. Grant funds have also been requested by the City through the HCRS to provide these facilities and improvements.

Spring Street Neighborhood Park: The Spring Street Neighborhood Park is located at the corner of West Spring Street and Oak Street on a one-half acre site. Existing development consists of open playground. On-street parking is available as well as the adjacent Civil Defense parking lot. No additional needs are identified for this park location.

Ward Agricultural Center: The Ward Agricultural Center is located on U.S. 70 By-Pass off Sparta Pike on a 104 acre site. This is a County owned area which serves as the fairgrounds. Developed facilities include a sale and show barn, an exhibit barn, a show arena with bleacher seating, and a nature trail. Original development of the Center site began in the early 1970's.

A long range master plan has been developed for the site which includes additional barns for livestock shows and exhibits, improved parking areas and internal access, outdoor recreation facilities, a community center/exhibit hall facility, and landscaping. Implementation of the master plan, however, has been hampered by the limited availability of necessary financing.

Cedars of Lebanon State Park: The Cedars of Lebanon State Park is located six (6) miles to the south of Lebanon off U.S. Highway 231 on a site of approximately 10,000 acres. The park was originally developed in the 1930's under the CCC and deeded to the State of Tennessee in 1955. Development of the park has continued since that time.

Approximately 950 acres of the site are developed and the balance is in forest. Facilities include a group lodge with complete facilities; a horse barn for horse rentals and a 12 mile horse trail; camp store, gift shop, snack bar and park office; nine (9) cabins; double olympic swimming pool and children's pool; an 18-hole frisbee golf course; Cedar Forest Lodge offering bike rentals, horseshoe, basketball, games, badminton and assembly hall with PA system having weekly square dancing; 12 picnic shelters; 128 campsites--90 with electrical hook-ups and a bath house; 38 tent sites with a bath house; campsite for the disabled; lighted baseball field; 42 picnic tables with grills; five (5) nature trails offering 8.2 miles of hiking area; and, a 12 mile motor cross trail. The park also offers swimming classes and a recreation and naturalist program.

The park is operated by 16 permanent employees and 27 park attendants which are seasonal employees.

The park utilizes City of Lebanon water services, but the public sewer system is not available.

A primary existing need identified is the continuing problem of adequately maintaining the grounds and facilities. Proposed improvements include renovation of the campgrounds and bath house facilities, and reworking the horse and hiking trails.

Needs identified over the next five-year period include the provision of adequate maintenance of existing facilities and upgrading facilities as required, addition of one tennis court, and the addition of full-time personnel.

Longer range needs anticipated are primarily preserving and protecting the park facilities and grounds. Additional personnel will be required in these efforts as resources are available. No additional expansion or addition of facilities is planned or expected.

Other Recreational Facilities: Private recreation facilities in the community include the Lebanon Golf and Country Club on Coles Ferry Pike and Hunter's Point Golf Course off U.S. 231 north.

Old Hickory Lake, nine (9) miles north of the city, provides for boating, fishing, swimming and other water-oriented activities.

Educational and Cultural

Elementary schools and the junior high school in Lebanon operate under a special district system. Presently, grades K-8 are under the special district while grades 9-12 are under Wilson County jurisdiction.

Byars-Dowdy Elementary School: Byars-Dowdy School was constructed in 1962 on a 22-acre site on Hickory Ridge Road in the southwesterly section of the City. Ten classrooms were added in 1964 and four (4) were added in 1968, making a current total of 24 classrooms. The structure is in sound condition and is of concrete block - brick veneer construction. Facilities within the school plant other than classrooms include a library, cafeteria and gymnasium/auditorium. The library was added in 1968.

During 1981-82 there was a staff of 22 teachers. The school serves grades 1-6 and had a 1981-82 enrollment of 483 students. Design capacity of the school, based on a maximum of 25 students per classroom, is 600 students.

Outdoor recreation facilities include a playground with equipment, basketball courts, and a baseball and softball field.

Tennessee Department of Education Standards for an elementary school site call for a minimum of four (4) acres, plus an additional acre for each 100 students enrolled. Byars-Dowdy easily exceeds this standard.

Based on a maximum of 25 students per classroom, the school has a more than adequate number of classrooms to house the students currently enrolled.

Proposals presently being studied include the propsect of adding additional classroom space to the Byars-Dowdy School to assist in accommodating system-wide enrollment.

Sam Houston Elementary School: Sam Houston School was constructed in 1964 with an addition of six (6) classrooms in 1968. The school is located on Oakdale Street and occupies a 20 acre site which more than adequately meets State site requirements. The school plant is in sound condition and has a total of 24 classrooms as well as a library, auditorium, cafeteria and gymnasium. The school has a design capacity of 600 students and adequately houses the present student enrollment.

Outdoor recreation equipment includes a playground with equipment, basketball goals and a ball field.

In 1981-82 there was a staff of 23 teachers and a total enrollment of 427 students in grades K-6.

Proposals presently being considered include the prospect of adding classroom space to the Sam Houston School to assist in accommodating system-wide enrollment.

McClain Elementary School: McClain School, located on West Main Street, was constructed in 1923 on a six (6) acre site. The last expansion of the facility occurred in 1952 when two (2) wings were added in back of the original structure. The front portion of the building is of frame and brick veneer construction while the two (2) rear wings are constructed of concrete block and brick veneer. The facility is in fair condition.

Facilities within the school plant include 14 classrooms, library and a combined cafeteria, gymnasium and auditorium. Outdoor recreation facilities include a ball field and playground facilities.

In 1981-82 there was a staff of 16 teachers and a total enrollment of 316 students, including 13 special education students, in grades K-6.

The McClain School site falls one acre short of the land necessary to meet minimum site standards. There is a sufficient number of classrooms, however, to house the current student enrollment.

Proposals presently being considered include the possible renovations of either McClain or Highland Heights Schools and consolidation of the two (2) facilities, or closing of both facilities and accommodating the enrollments in a new facility or through classroom additions at Sam Houston and Byars-Dowdy Schools.

Highland Heights Elementary School: Highland Heights School, constructed in 1937, is located on East High Street on an 8.5 acre site. With the only addition made in 1952, the school has a total of 16 classrooms as well as a gymnasium, cafeteria and library. While the building is in sound condition, the concrete block construction creates problems in maintaining a desirable exterior appearance. Outdoor recreation facilities include a playground with equipment, tennis courts, and ball fields.

In 1981-82 there was a staff of 22 teachers and a total enrollment of 435 students, including 36 special education students, in grades 1-6. Special education students are in the North Cumberland Education Center.

The Highland Heights site has just enough acreage to meet minimum State site standards. The school falls almost two (2) classrooms short of complying with the standard of no more than 25 students per classroom.

As previously indicated, proposals presently being considered include the possible renovation of either McClain or Highland Heights Schools and consolidation of the two (2) facilities, or closing of both schools and accommodating the enrollments in a new facility or through classroom additions at Sam Houston and Byars Dowdy-Schools.

Southside School: Southside school is located on U.S. 231 South on a 12 acre site. The facility was constructed in 1972 and has a total of 29 classrooms including portables as well as a library, cafeteria and gymnasium. The building is structurally sound but improvements are needed. Outside recreation facilities include a playground with equipment and a ball field.

In 1981-82 there was a staff of 27 teachers and a total enrollment of 614 students in grades K-8. The building is now at design capacity in accommodating student enrollments and expansion will be required with student increases. In addition, the roof is in a state of deterioration requiring improvement. Additional needs over the next five years other than more classroom space include increased space for the library and cafeteria. Longer term needs are under study.

The school site is presently adequate in terms of compliance with minimum site standards.

Carroll-Oakland School: The Carroll-Oakland School, located on a 20.81 acre site, was constructed in 1977 on U.S. 231 North. The facility is in sound condition and has a total of 17 classrooms as well as a library, cafeteria and gymnasium. Outside recreation facilities include a playground with equipment and a ball field.

In 1981-82 there was a staff of 20 teachers and a total enrollment of 420 students in grades K-8. The building is now just short of its design capacity of 450 students and expansion will be required in the near term with student increases.

The school site is more than adequate to meet minimum site acreage standards.

Market Street School: The Market Street School was built in 1957 with a 1959 addition. The one story concrete block and brick veneer structure has eight (8) classrooms and is in sound condition. Other facilities within the school include a library, cafeteria and gymnasium. The school site totals 2.5 acres which falls almost three (3) acres short of meeting minimum site standards. Parking facilities are also limited.

Outdoor recreation facilities include a fenced playground with equipment and basketball court.

In 1981-82 there was a staff of six (6) teachers and a total of 137 students. Only kindergarten classes are served. The school has sufficient classroom space to adequately house the current student enrollment.

Walter J. Baird Junior High School: The Junior High School, located off Coles Ferry Pike, was originally constructed in 1964 and has not been expanded to date. The building is in sound condition and has a total of 18 classrooms, as well as a library, cafeteria, gymnasium, auditorium, band room and chorus room. The 50 acre site significantly exceeds the amount of land required to meet minimum site standards. Outside recreation facilities include playground area with equipment and ball fields.

In 1981-82 there was a staff of 24 teachers and a total enrollment of 500 students in grades 7-8.

Lebanon High School: Lebanon High School, located on Harding Drive, was constructed in 1949 on a 30 acre site. Expansions through 1972 included seven (7) classrooms, a band room and a shop. In addition to 64 classrooms, other facilities within the school include a library, cafeteria, two (2) gymnasiums, auditorium, and food and science labs. The football stadium is also located on the school site. The building is considered to be in fair to good condition.

In 1981-82 there was a staff of 58 teachers and a total enrollment of 1,270 students. Classroom space is more than sufficient to adequately house the student enrollment and the site is in compliance with minimum requirements.

Existing problems identified include the need to update mechanical equipment and economize on operation.

Other short term and longer range expansion and improvement needs are now under study.

Lebanon-Wilson County Library: The Lebanon-Wilson County Library is a joint City-County facility located on West Main Street adjoining the McClain Elementary School site. The building is in good conditon, and a recent addition expanded the total floor area from 3,200 square feet to 5,200 square feet. No off-street parking spaces and only nine (9) on-street parking spaces are available. The library is staffed by two (2) full-time librarians and provides over 17,500 volumes.

With the new expansion, the building is expected to meet library space needs over the planning period, however, additional off-street parking area is required.

CHAPTER II

THE GENERAL PLAN

OBJECTIVES

After a determination of prospective growth within the Lebanon Urban Area has been made, together with an assessment of the consequences of that growth, community development objectives may be formulated. These objectives broadly identify what the plan should achieve over time within the Urban Area. Development goals or objectives involve a wide range of physical, social, and economic considerations which relate to the health, safety, welfare, convenience, and general amenities of the urban scene. Lebanon's General Plan reflects the following objectives:

1. To improve the quality of the environment by eliminating substandard housing, increasing the variety of housing choice, and eliminating incompatible land use;

2. To improve the community's business and industrial sectors by providing adequate space for the suitable location and distribution of these activities;

3. To enhance education, recreational, and public health-safety services by providing adequate sites at suitable locations to serve an expanding community population;

4. To provide for the safe, efficient, and convenient movement of people and goods within the Urban Area by integrating the pattern of land uses with necessary circulation routes and transportation facilities; and,

5. To enable efficiency and convenience in providing community services by encouraging compactness or concentration of development to the extent possible, consistent with prevailing densities and trends in density changes, around centers of urban activity. This would involve consolidation of commercial functions into the central business district and several outlying shopping areas, and the systematic development of vacant land within the built-up area.

PLANNING CONCEPTS

Planning concepts serve as a framework for planning the land use, transportation, and community facility system of the Urban Area. Within this broad system, three (3) major components or "use areas" can be identified--living areas, shopping areas, and working areas. These areas form the basis for the arrangement of land uses within the Urban Area.

Use areas differ significantly in terms of function, physical characteristics, and locational requirements. Each area is intended to include types of land uses which are functionally and physically compatible. Delineation of use areas within the Lebanon Urban Areas took into account the existing pattern of land use and service facilities, as well as the topographic suitability of the land for urban development.

LIVING AREAS

Living areas are predominantly residential in character but usually include certain types of physically compatible service uses such as neighborhood recreation, schools, churches, public safety, or utilities, and convenience retail service outlets such as grocery stores to serve the immediate needs of local residents.

The living areas are the most flexible of all land uses with respect to location. Residential development can take place in terrain offering level, rolling, or hillside sites. Under normal circumstances, however, slopes in excess of 20 percent should be avoided. Residential development should be as compact as possible but with allowance for open space. Widely dispersed patches of isolated development are undesirable because they result in excessive costs regarding the provision of utilities.

SHOPPING AREAS

Shopping areas serve primarily as the major source of goods and private services in the community but, in addition, are important for the employment they provide. There are essentially two (2) types of shopping areas. The large centers include the community's widest range of retail and service establishments, enabling comparison shopping for goods other than convenience items. These centers serve market areas greater than one neighborhood. The smaller shopping areas are "convenience centers", usually consisting of food, drug, limited general merchandise, and personal service establishments intended to serve one neighborhood. Shopping areas require off-street parking space and highly accessible locations. Certain community facilities and merchant wholesaling establishments are also appropriate in the larger shopping centers.

The commercial structure of Lebanon consists of three (3) functional elements which pose somewhat different problems with respect to location and distribution within the urban area: the central business district, neighborhood convenience business establishments scattered throughout the planning area, and ribbon-type development of highway business and other commercial uses along several of the major thoroughfares.

The central business district, like other major shopping centers, provides a large number of commercial outlets concentrated in a relatively small area so that consumers can conveniently visit a variety of stores on foot. However, unlike modern shopping centers, central business districts in most cities were built largely before

the advent of motor vehicles, and typically suffer from traffic congestion and a lack of convenient off-street parking space. If the CBD in the smaller community is to capitalize on the accessibility advantage of its central location with respect to the entire urban area, provision must be made for the pedestrian consumer who comes into the CBD by automobile.

Neighborhood commercial uses should be grouped into locations where services can be conveniently provided people living in each neighborhood area. Local convenience centers should be situated within walking distance or brief driving time. Also, convenience access to major thoroughfares is desirable, along with adequate off-street parking facilities.

The substantial amount of ribbon-type or strip commercial developments in Lebanon renders consideration of their operational aspects particularly important. The lining of thoroughfares with commercial uses invariably creates problems which outweigh the anticipated benefits of accessibility to consumers. Too often, this type of development results in an assortment of retail, service, and highway-oriented outlets which are not properly related to one another or to the traffic-carrying functions of the routes on which they front. Furthermore, as new highways are constructed, the driver-consumer patterns on which these establishments depend will be disrupted, and "commercial slums" will likely result. Meanwhile, continuation of strip commercial growth will reduce the traffic capacities of these streets and deter the use of such land by more appropriate types of development.

WORKING AREAS

Industrial areas are termed "working areas" because they are primarily important to the smaller community for the employment opportunities they provide. It is usually desirable to keep industrial uses separate from other uses, since they are typically neither functionally nor physically compatible--and even less psychologically compatible. However, warehousing and bulk wholesaling uses along with public facilities are examples of nonindustrial uses which might be compatible in an industrial area.

Industrial land locations are, in some ways, more critical than other use types, since the land use needs of industry present a more stringent set of locational requirements than most other types of development. These requirements include easy access to appropriate transportation facilities, rail and/or truck; availability of utilities; reasonably level terrain, not exceeding a five percent grade; proper relationship to neighboring land uses; and, accessibility to a plentiful labor supply.

SUMMARY OF FUTURE LAND SPACE NEEDS

Table XVIII presents a summary of existing land use acreage in the Lebanon Urban Area and of the total need projected to the year 2000. These anticipated future land needs serve as a basis for the land use plan which follows.

TABLE XVIII

EXISTING AND PROJECTED SPACE NEEDS

LEBANON URBAN AREA

1982 AND 2000

Land Use	Acres	
	1982	2000
Residential	4,292	7,460
Commercial	510	873
Industrial	549	832
Public and Semi-Public	1,182	1,457
Railroads and Streets	1,373	1,763
TOTAL	7,906	12,385

Source: John Coleman Hayes & Associates, Inc.
Engineers, Architects and Planners

PLAN FOR LAND USE

RESIDENTIAL LAND

Current trends indicate that future residential areas will increasingly begin to differ over the planning period with respect to density, due to demand for apartments which is already evident to some degree. Given the current high costs for housing (including higher interests and costs for labor, land and materials), it is expected that more significant density changes in residential development will become apparent as resulting demand warrants increased apartment developments and as sewer services are expanded to serve all residential lots in the community.

The land use projection has indicated that approximately 2,168 acres of additional residential land will be needed by the year 2000. Lebanon has an ample supply of land suitable for residential use; thus, the major consideration is not shortage of land but rather how to distribute residential growth in order to maximize benefits and minimize costs.

The plan recommends that land within the present built-up area as well as land outside be used to accommodate future residential growth in accordance with the policy of encouraging compactness of development. The living area graphically depicted on Illustration 10 reflects development of vacant parcels within the built-up area, and development of additional acreage outside the built-up area.

Trends in prevailing residential densities, which generally range from about one to over 10 dwelling units per acre, would not be substantially affected by this policy. Rather, the pattern of development should be guided so that suitable lands which are within the built-up area and can be serviced relatively inexpensively would be developed before the more-costly-to-service outlying lands are used. Density should be controlled but not in a manner which would limit housing choice.

The northerly, westerly and southwesterly portions of the Urban Area, adjacent to existing built-up areas, are the major areas indicated suitable for residential growth. These locations are at the fringe of much of the city's recent development. These areas not only offer level land but also have relatively convenient access to the community's major shopping and work areas. The west and southwesterly areas, in particular, are conveniently located regarding access to Metropolitan Nashville. Local conditions and present development will tend to inhibit extensive residential growth to the east and southeast. Moderate residential expansion, however, can be anticipated. Growth to the northwest has moved beyond the residential development barriers posed by the flood plain of Barton's and Sinking Creeks and the industrial subdivision. Portions of the floodway shown in future growth areas should not be considered for extensive development unless appropriate fill and channel improvements are applied to resolve the problem of periodic flooding.

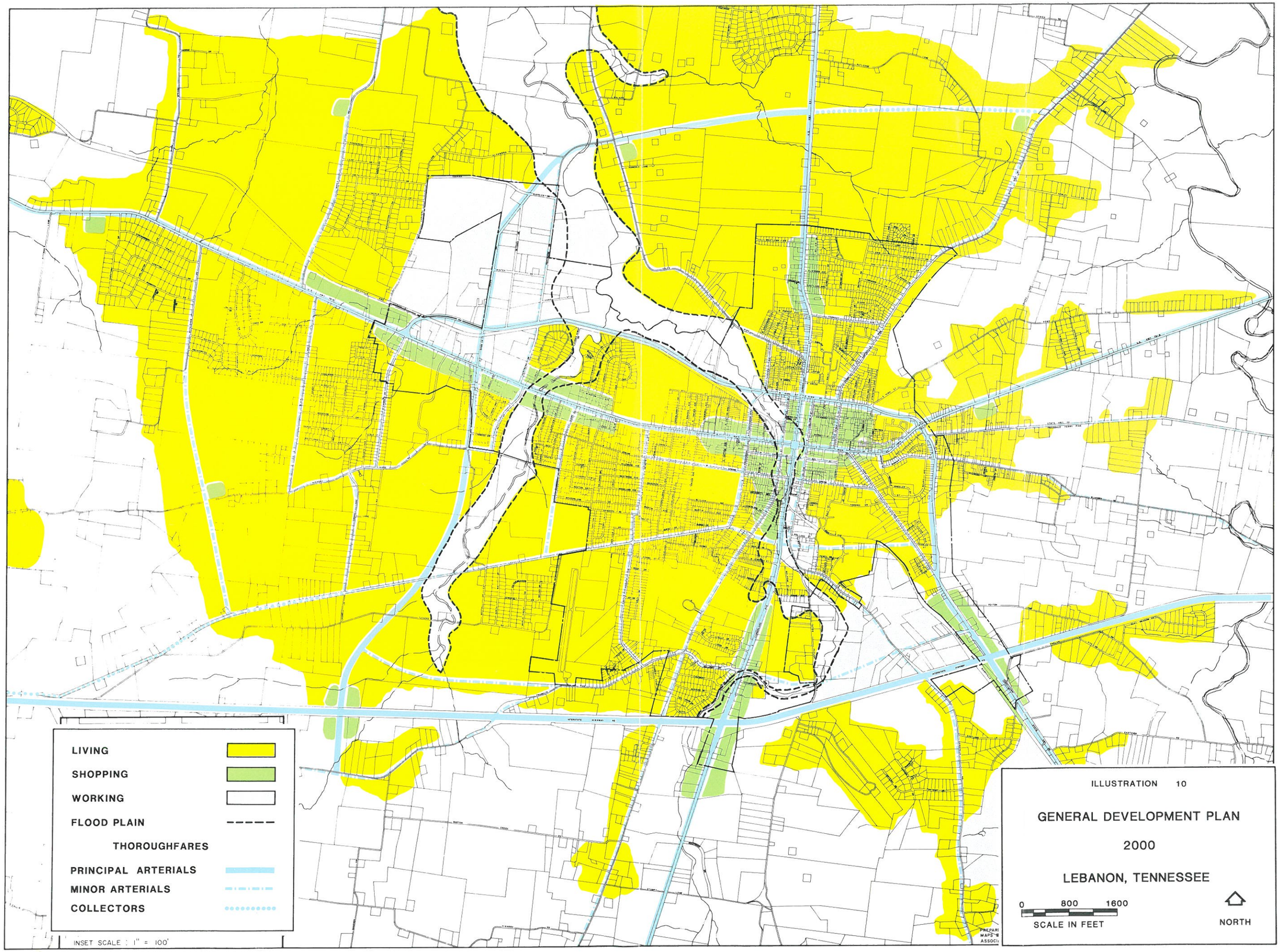
ILLUSTRATION 10

GENERAL DEVELOPMENT PLAN

LEBANON URBAN AREA

YEAR 2000

(To Include Plans for Land Use,
Thoroughfares and Community Facilities)


LIVING
SHOPPING
WORKING
FLOOD PLAIN
THOROUGHFARES
PRINCIPAL ARTERIALS
MINOR ARTERIALS
COLLECTORS
INSET SCALE : 1" = 100'
ILLUSTRATION 10
GENERAL DEVELOPMENT PLAN
2000
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH

INDUSTRIAL LAND

The location and distribution of land in the Lebanon Urban Area for future industrial growth requires especially careful consideration for reasons which have previously been indicated:

1) Industry has been more stringent in locational and site requirements than most other uses;

2) The Lebanon economy is expected to rely importantly on local industrial activities; and,

3) Choice sites for new industry are relatively scarce in the urban area.

In view of these factors, the plan proposes that industry be accommodated in five (5) areas, four (4) of which represent existing industrial concentrations in the community. Three (3) of these areas--the industrial subdivision and sections on West High Street and South Cumberland--offer only limited expansion opportunities. The industrial subdivision, however, can still accommodate the location of several smaller industries as can the areas on West High and South Cumberland Streets, both of which are adjacent to the central business core. Relatively small industrial concerns located in these areas will have access to both highway and railroad facilities. Appropriate floodway protection measures must be considered in any modest expansion of these industrial areas.

The fourth area proposed for continued industrial use and expansion is situated north of Interstate Highway 40 at the Watertown Interchange. Existing industrial concerns already occupy over 50 acres at this location, however, approximately 200 acres of adjacent vacant land area offers convenient access to highway and rail facilities and is immediately accessible to water and sewer facilities. A part of this territory within the corporate limits has already been designated for industrial use through the local zoning ordinance. This location is effectively separated from living areas by the railroad right-of-way to the east and the flood plain of Sinking Creek to the west.

The fifth area proposed for industrial use by the plan is situated south of the Interstate 40 - Watertown Interchange along the L&N Railroad right-of-way. It is recommended that 1000 acres be designated for industrial use in respect of the report by the Hartsville Impact Coordinating Committee which proposes a five county regional industrial park at this location. The proposal recognizes Lebanon's role as a regional employment center, and as well, recognizes the area as a prime industrial location with immediate Interstate and rail access, airport access, within 30 minutes drive of a metropolitan center, and served by water facilities. An interceptor sewer is proposed to serve the area as part of Lebanon's currently scheduled wastewater system improvements program. TVA financial assistance is anticipated in development of the area.

Although designation of this amount of industrial acreage for future development exceeds Lebanon's projected local need by approximately 800 acres, such action provides assurance that the community's prime industrial land will be preserved for industrial purposes. In addition, the area is expected to provide industrial employment for a regional area much larger than considered in forecasting local industrial land needs.

The grouping of industry, as proposed by the plan in these areas, permits tailoring of the selected areas to industrial needs, e.g., heavy-duty streets, good access, group facilities and services, and elimination of needless duplication, making for more efficient utilization of good industrial land.

COMMERCIAL LAND

Commercial functions in Lebanon are not expected to change greatly as the area grows because of the closeness to Nashville's facilities; however, the local structure does have the opportunity to provide for the needs of an expanding urban area population. The plan for shopping areas is aimed toward a more efficient and convenient distribution of commercial facilities rather than toward substantial functional modifications.

It is recommended that much of the commercial development in the urban area be gradually consolidated into an expanded CBD, several existing highway business areas, and into outlying neighborhood convenience shopping areas. This approach is consistent with the overall development policy of concentration and compactness and offers the additional advantages of eliminating incompatible commercial uses from residential areas and of limiting the extension of strip commercial development.

In addition to exerting a centripetal influence on the overall pattern of development, an expanded CBD would be advantageous from the standpoint of the greater variety of shops, goods, and services which its increased size and the larger local population make feasible. The allocated acreage for the future central area includes space for merchant wholesaling establishments in its outer portions, and for off-street parking adequate to serve all commercial outlets.

Shopping areas along North and South Cumberland Streets, West Main Street and State Highway 24 represent controlled expansions of existing highway-oriented commercial areas. In addition, new neighborhood convenience centers of approximately five (5) acres each will be needed at accessible locations throughout the community to serve areas of expected residential expansion. Aside from serving the convenience shopping needs of residents in the general vicinity, the Interstate Highway 40 Interchange shopping locations will also accommodate the shopping and service needs of regional motorists.

Encouragement of outlying commercial development in this form would provide a positive alternative to the ribbon-type development which might otherwise result. Unlike strip development, grouping of facilities could be guided to result in commercial nodes which are sufficiently spaced to serve separate market areas. In turn, this spacing renders movement in the urban area easier, safer, and more aesthetically pleasing, since major traffic ways would not be lined with an admixture of commercial uses and would not be quite so vulnerable to the problems of uncontrolled street access. Grouped commercial development would normally enhance if not insure provision of adequate off-street parking space and control of access.

PLAN FOR THOROUGHFARES

The thoroughfare system is the structural framework of any community. A poorly designed system leads to excessive maintenance costs, additional travel time, congestion, and traffic hazards. On the other hand, a properly planned thoroughfare system will not only provide for the safe, convenient, and efficient movement of goods and people within the city but also will serve to provide adequate access to the community's land uses.

A major thoroughfare plan developed independently of other physical aspects of the community's long-range development plans would be of little significance. Similarly, the development of other plan elements without relation to the thoroughfare plan would be unrealistic. Each element of the community's general development plan complements the other.

The existing thoroughfare system, in addition to present and future traffic volumes, has already been discussed. The pattern of existing traffic loads indicates that, aside from the principal and minor arterials, circulation through Lebanon is possible only via indirect, inconvenient routes containing jogs and narrow pavement. Particular short segments of minor streets carry unusually high traffic volumes, because a more efficient system of collector streets has not been provided.

In order to eliminate these deficiencies in the existing circulation system, and at the same time provide for the needs of a new, more extensive land use pattern, the proposals, as shown on Illustration 10, are enumerated as follows:

1. Construction of a new by-pass is the only new arterial proposed in the plan and therefore is a key ingredient in the creation of a balanced transportation system that will accommodate future travel demands. This by-pass should be built as a controlled access facility. This by-pass includes a new interchange on Interstate 40 directly south of Crowell Lane to provide more convenient interstate access for new industrial, commercial and residential development in the westerly segment of Lebanon.

The proposed by-pass extends south from the new interchange to Franklin Pike and north across Hickory Ridge Road and State Route 24 By-Pass, utilizing existing Rocky Road and Babb Drive, in a north and east direction intersecting with Coles Ferry Pike and North Cumberland Street, and terminating at Hartsville Pike.

Construction of this by-pass route will connect radial routes extending from the central business core. This will relieve future congestion in the CBD by providing better external circulation for new industrial, commercial, and residential development. Rights-of-way widths ranging from 120 feet to 150 feet and general construction requirements for this route have been recommended by the Tennessee Department of Transportation (TDOT).

2. The widening of existing arterials deemed required to accommodate future travel demands include the following routes:

a) State Route 24 By-Pass -- Proposed to be improved to a cross-section of (64'/100').

b) State Route 10 (North Cumberland) -- The segment between Western Avenue and the Hunter's Point Golf Course should be improved to a (64'/100') cross-section and the remaining segment to a (52'/76'/150') cross-section.

c) State Route 24 (West Main) -- Segment between Carver Lane and the edge of the Urban area boundary should be improved to (52'/76'/150').

d) State Route 10 (South Cumberland) -- The segment between Interstate 40 and the urban area boundary should be improved to (52'/76'/120').

e) State Route 141 (Hartsville Pike) -- This facility, from the State Route 24 By-Pass to the urban area boundary, should be widened to a (44'/60') cross-section.

f) State Route 26 (Baddour Parkway) -- Should be widened to a cross-section of (64'/100').

g) State Route 26 (Watertown Highway) -- The segment from Interstate 40 to the urban area boundary should be widened to a (52'/76'/120') cross-section.

3. The development of an adequate collector street system to complement the improved arterial system is necessary to sufficiently distribute concentrated areas of traffic onto the various arterials and offer access into areas of anticipated development. New extensions and improvements to collector streets indicated below include both projects already in the design or construction phase as well as new proposals:

a) Leeville Pike Extension -- The first section of this extension, from Greenwood Street to State Route 10, has already been approved as part of Lebanon's Federal-aid Urban Street Program for improvement to a cross-section of (26'/40') with sidewalks. The second section, from State Route 10 to Park Avenue, should be constructed to a (26'/50') cross-section. This link will provide a much needed east-west connector route through the southern section of town.

b) Leeville Pike -- The segment between Greenwood Street and Crowell Street should be improved to a (24'/50') cross-section.

c) Franklin Pike Extension -- The first part of this link has been completed extending Franklin Pike from Maple Street to State Route 10, improved to a (26'/40') cross-section with sidewalks. The second section of the extension between State Route 10 and State Route 26 should be constructed to a cross-section of (24'/50').

d) Franklin Pike -- This segment from Maple Street to the urban area boundary should be improved to a (24'/50') cross-section.

e) Newby Street -- The bridge over Town Creek and its approaches are inadequate. A cross-section of (26'/40') with sidewalks is recommended.

f) Gay Street Extension -- In order to ease the heavy traffic congestion in the vicinity of the Wilson County Courthouse, the extension of Gay Street to Park Avenue is recommended. This should be constructed on a (26'/40') cross-section with sidewalks.

g) Dawson Lane -- The improvement of the existing segment of Dawson Lane and its extension to Leeville Pike would provide a needed north-south connector link through this area. A (26'/40') cross-section with sidewalks is recommended to serve projected traffic flows.

h) North Greenwood Extension -- This segment would extend north from the intersection of North Greenwood and West Forrest Street and turn east to join State Route 10 (North Cumberland) across from Elmwood Avenue. This route is designed to provide safe and easy access to Walter J. Baird Junior High School. A (26'/40') cross-section with sidewalks is recommended.

i) Bethlehem Road -- A north-south connector link between State Route 24 and Leeville Pike would be provided with the improvement and extension of this route on the western fringe of the urban area. Both the existing road and the extension should be built to a (24'/50') cross-section.

j) State Route 141 (Trousdale Ferry Pike) -- The existing width of this roadway segment from State Route 26 to the Urban Area Boundary is too narrow to accommodate projected traffic. Therefore, it is recommended this section be improved to a (24'/40'/100') cross-section. A narrower right-of-way which includes sidewalks is recommended in the urbanized area of State Route 141.

k) Forrest Street -- A cross-section of (26'/40') with sidewalks is recommended to improve this narrow roadway segment between Hartsville Pike and Lake Street.

l) Castle Heights Avenue -- The segment between Spring Street and West Adams Street is to narrow to meet future travel demands. A (26'/40') cross-section is recommended to serve the expected traffic. The jog at the Sanders Road intersection should be straightened as much as possible during the widening.

m) Coles Ferry Pike -- The improvement proposed for the segment between State Route 10 and the Lebanon City Limits consists of widening to a (26'/40') cross-section with sidewalks.

n) Connector Route -- Construction of a connector route is recommended from the new by-pass route, just north of the proposed interchange, to Franklin Pike at the Airport. This should be constructed to a cross-section of (24'/50'). This route will provide for a more efficient flow of local traffic in the southerly segment of the community and will provide more ready access to the airport and interchange business locations from the west and northwest.

o) Maple Hill Road -- The segment from West Main Street to the urban area boundary should be improved to a (24'/50') cross-section to provide for more efficient traffic flow in this developing northwesterly section.

p) Horn Springs Road -- The segment from West Main Street to the urban area boundary should be improved to a (24'/50') cross-section for better access as this residential area develops.

PLAN FOR COMMUNITY FACILITIES

The adequacy of Lebanon's Community facilities has been discussed in Chapter 1. This section of the General Plan will suggest what should be done to correct existing deficiencies and to provide for future growth. The resulting proposals, with the exception of water and sewer system expansions, are also delineated on Illustration 10. Proposed water and sewer system expansions are graphically identified on Illustrations 11 and 12.

TRANSPORTATION

Airport

Proposed improvements over the next five (5) years include installation of a tank for jet fuel, construction of an additional tee-hangar and tie down space, and construction of an additional hangar. A need by approximately 1990 includes extension of the runway by an additional 1500 feet.

Municipal Parking Area

The plan recommends construction of a multi-story parking garage on the municipal owned parking lot at the southwest corner of the square, increasing parking capacity by a minimum of 200 additional spaces. Ingress-egress should be provided from West Gay Street, if possible, to reduce additional traffic volumes on the square.

HEALTH

James Robertson Health Center

Proposed improvements include doubling of the present building space to 12,000 square feet by 1990. A new site of at least eight (8) acres will be acquired for the facility. Adequate off-street parking and personnel should also be provided. Possible site locations are on U.S. 70 South By-Pass.

McFarland Hospital

Proposed improvements within three (3) years include addition of a professional office building, expansion of ancillary facilities, and expansion/addition of one general surgical operating room. By 1990 anticipated needs include a 25 bed addition and construction of a specialized operating room. The present site must be expanded to accommodate these improvements together with the provision of adequate off-street parking.

University Medical Center

An expansion of beds from the existing total of 139 to 250 is anticipated between 1990-1995. This addition, and required off-street parking can be accommodated on the present rate.

ILLUSTRATION 11

WATER SYSTEM GENERAL SERVICE AREA

LEBANON, TENNESSEE

YEAR 2000

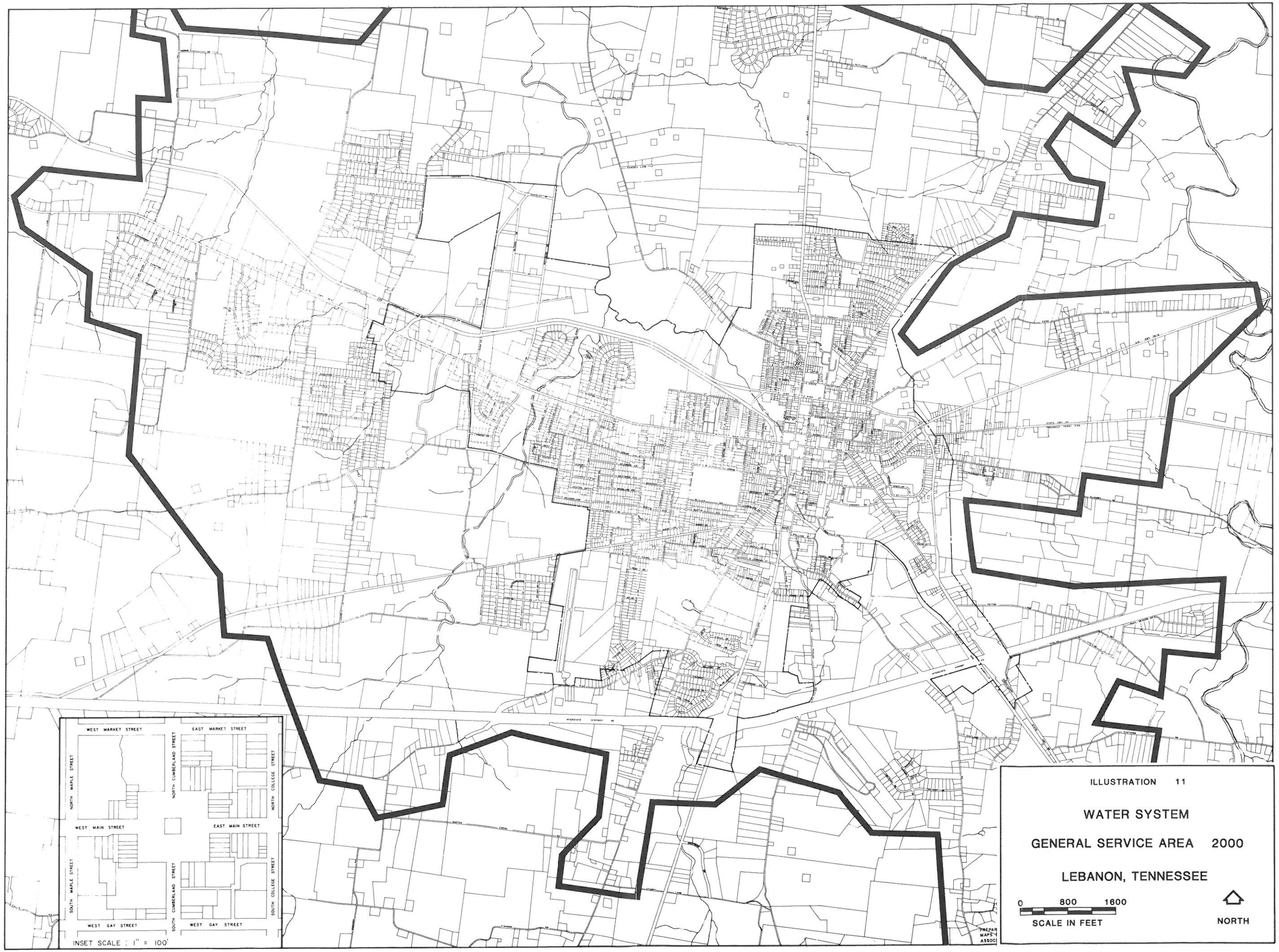


ILLUSTRATION 11

WATER SYSTEM

GENERAL SERVICE AREA 2000

LEBANON, TENNESSEE

0 800 1600

SCALE IN FEET

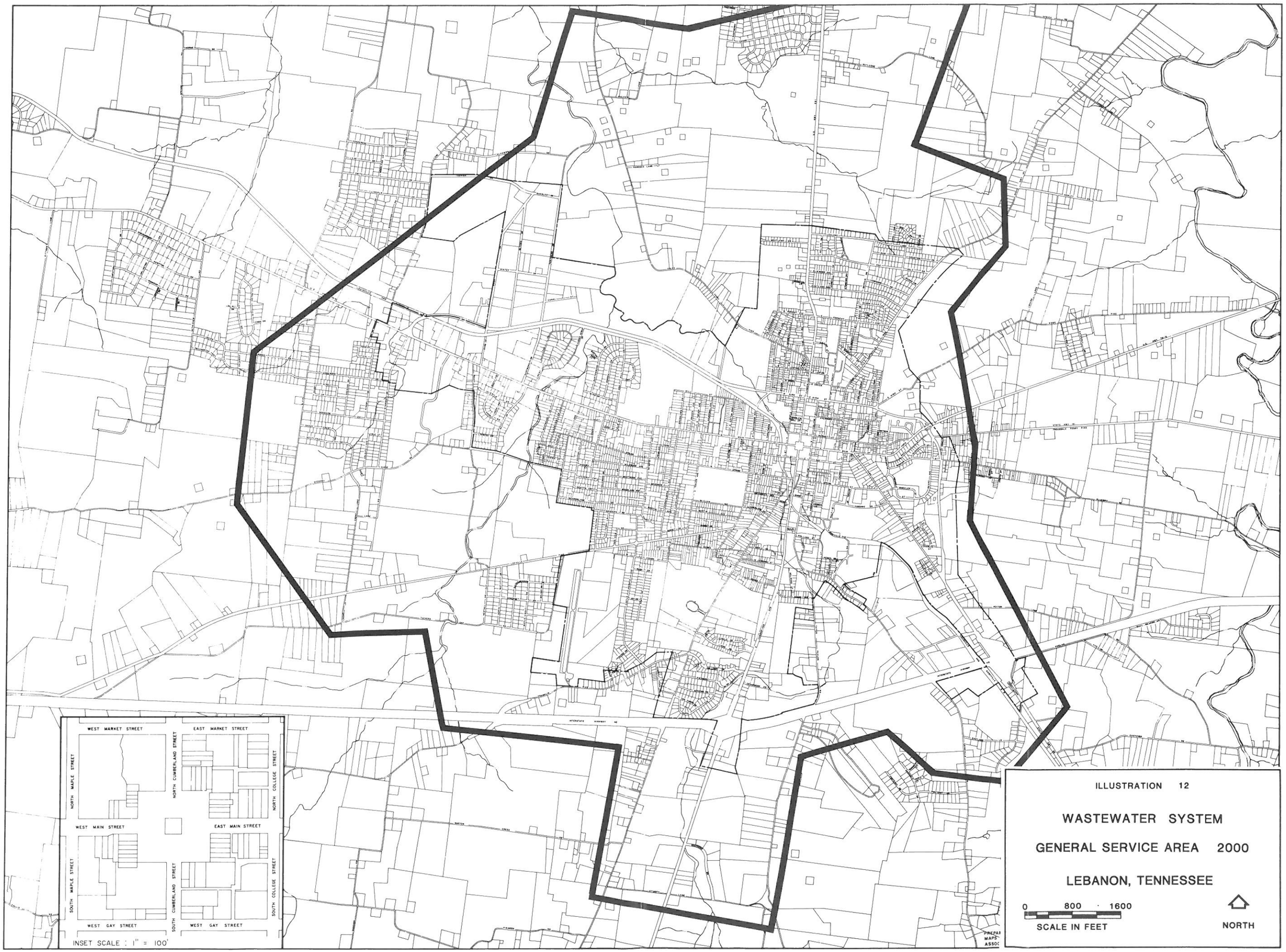
NORTH

ILLUSTRATION 12

WASTEWATER SYSTEM GENERAL SERVICE AREA

LEBANON, TENNESSEE

YEAR 2000


WEST MARKET STREET
EAST MARKET STREET
NORTH MAPLE STREET
NORTH CUMBERLAND STREET
NORTH COLLEGE STREET
WEST MAIN STREET
EAST MAIN STREET
SOUTH MAPLE STREET
SOUTH CUMBERLAND STREET
SOUTH COLLEGE STREET
WEST GAY STREET
WEST GAY STREET
INSET SCALE : 1" = 100'
ILLUSTRATION 12
WASTEWATER SYSTEM
GENERAL SERVICE AREA 2000
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH
PINEPAK MAPS ASSOC

Margie Anna Nursing Home

The present site should be expanded to provide required off-street parking facilities.

Quality Care and Cedars Nursing Home

A need for an addition of 30 beds for Cedars Nursing Home and 60 beds for Quality Care is anticipated by the period 1992-1995. This expansion and additionally required off-street parking can be accommodated at the present site location.

Wilson County Mental Health Center

Proposed improvements in the next three (3) years include the renovation of the building interior spaces to meet additional program capacity needs.

ADMINISTRATIVE AND HOUSEKEEPING

City Hall

Proposed improvements include the provision of additional storage space within the next three (3) years. No site or parking area expansion is required.

Police Department

Proposed improvements, to parallel anticipated city growth and annexation, inlcude doubling of the existing building space and personnel over the next five (5)years to maintain adequate service. Due to present site limitations, a new 10,000 square foot building should be constructed on a three (3) acre site, possibly across Gay Street, to accommodate police operations.

Fire Department

Proposed improvements currently include provision of a snorkel or ladder truck and, with the addition of city territory through annexation over the next five (5) years, additional equipment and manpower should be provided in accordance with standards recommended by the Tennessee Inspection Bureau. The 4,900 square feet of space proposed to be vacated by the police department should accommodate additional building space needs.

A third fire station of approximately 6,000 square feet of floor area is proposed to be constructed on a three (3) acre site in West Lebanon by 1987-1990.

Wilson County Court House

Proposed improvements include the provision of additional office space through expansion of the present courthouse within the next three (3) years.

The Baddour Building, providing County office space, should be substantially rehabilitated within the next three (3) years.

Wilson County Sheriff's Department and Jail

In addition to presently needed additional staff, space and facilities improvements currently required include a closed-in dispatcher office, office space extended for the detective division and records, an interrogations room, space for mugging and finger-printing, a property room, observation cameras, locker room for officers with showers and first aid facilities, security doors for exit and entrance, fenced-in exercise area, additional jail space to comply with state minimum standards, an outside gas room separated from the main building, and four (4) additional patrol cars.

Additional space improvements proposed within the next five (5) years include a juvenile building separate from the adult facility to comply with state standards and a light auto maintenance building. These facilities should be constructed on a separate site of 3-5 acres in the immediate vicinity of the present facilities. Also required for this period are an expanded work house, five (5) additional patrolmen, two (2) more patrol cars, specialized equipment, and a four-wheel drive vehicle.

Long range considerations include the need to expand staff as required to meet the law enforcement needs paralleling county population growth.

Solid Waste Disposal

Existing equipment needed includes a new truck or scraper and the need for additional equipment is anticipated within the next five (5) years.

To extend the life of the current landfill operation beyond the year 2010 and adequately accommodate solid waste disposal, the County proposes to construct a transfer station on a 10 acre site in east Lebanon. The station would compact waste delivered by pick-up vehicles to then be transported to the thermal plant in Gallatin or elsewhere for disposal.

Water System

Current system supply and treatment capacity will meet estimated demands through the planning period, however, additional storage capacity is required. Construction of an additional 2.0 million gallon storage facility within the next two (2) years will insure adequate fire flows, enhance system pressures, and keep the system in compliance with state minimum requirements. In addition, to provide for future storage needs through the planning period, an additional 2.0 million gallon facility will be required by 1990.

Expansion of the distribution system will be required commensurate with population increases and continued development of the urban fringe areas. Proposed water line extensions to serve general new growth areas through the year 2000 are depicted on Illustration 11.

Wastewater System

The city's currently scheduled wastewater expansion program will serve treatment needs to 1990, however, capacity will have to be at least doubled at that time to meet treatment needs through the year 2000.

In addition, the expansion of collection lines to other presently unsewered fringe area development will be required with subsequent city growth through annexation following completion of the currently scheduled improvements. Additional collection lines will be required to serve future growth over the planning period. Scheduled and proposed collection line extensions are shown on Illustration 12.

RECREATION

Lebanon currently has available a community park, several neighborhood park locations, school playfields and playground areas, a state park within six (6) miles, and the County fairground and recreation area, the total of which provides substantial recreation acreage. With the exception of the Cedars of Lebanon State Park, however, all of these local areas do not provide adequate facilities at well dispersed locations to accommodate existing and projected population. These deficiencies are herein proposed to be met through the addition of facilities at these existing locations as required over the planning period, and through the addition of approximately 10 mini-parks on small sites within easy walking distance of the various neighborhood areas.

The Cedars of Lebanon State Park provides a range of facilities for camping, hiking, bicycling, picnicing and horseback riding, therefore, it is not recommended that this general type of facility be duplicated in the local recreation program except for the facilities that may be appropriate at the neighborhood or community park level, i.e., picnicing.

Existing basic recreation facilities available and those required to serve the Lebanon Urban Area population through the year 2000 are indicated as follows:

Facility	Standard/1000 People	Scheduled or Existing 1982	Total Needed By 1990	Total Needed By 2000
Baseball Diamonds	1 per 6,000	7	8	8
*Softball Diamonds (and/or Little League Diamonds)	1 per 3,000	1	8	11
Tennis Courts	1 per 2,000	5	13	16

*Basketball Courts	1 per 1,500	0	11	16
Swimming Pools - 25 Yard	1 per 10,000	0	1	1
Swimming Pools - 50 Meter	1 per 20,000	0	1	1
T-Ball Courts	No Standard	2	5	10
Older Children and Adult Game Facilities	No Standard	0	10	20
Picnic Tables/Grills	No Standard	10	25	40
Handball Courts	No Standard	2	5	10
*Sportsfields	No Standard	0	2	4
*Tot Play/Playground Facilities	No Standard	0	5	10
Community Center	1 per 10,000 - 25,000	0	1	1
Amphitheater	No Standard	0	1	0

*Existing facilities provided at school site locations are taken into account in projecting future needs.

Note: Every effort should be made to light all facilities, thus extending their utility.

The following general guidelines are provided for distribution of the proposed and other incidental facilities requirement among the existing and proposed local recreation areas. Specific time frames for addition of most of the facilities at existing sites should be based on observed use of existing facilities.

William D. Baird Municipal Park -- Add a 50 meter swimming pool and bathhouse facility by 1986-88. As required, add two (2) tennis courts, two (2) softball diamonds, two (2) basketball courts, a T-Ball Court, two (2) sports fields, tot play facilities, two (2) handball courts and four (4) picnic tables/grills. Also add amphitheater by 1985-86.

Provide for additional off-street park and landscaping as required.

Eastside Park -- As required add softball diamond, tot play facilities, basketball court, and adult game facilities.

Elkins Park -- As required add tot play facilities, basketball courts and adult game facilities.

Spring Street Park -- Add facilities as needed similar to those proposed below for other mini-park locations.

Ward Agricultural Center -- As required provide one baseball and three (3) softball diamonds, four (4) tennis courts, 20 picnic tables/grills, two (2) sportsfields, adult game facilities, and tot play area/playground facilities.

Mini-Parks -- The addition of 10 mini-parks is recommended over the planning period, five (5) by 1985-1990. These should be on sites of approximately one acre and within 1/4 to 1/2 mile of each neighborhood service area. One of these parks, proposed for location in West Lebanon, should be at least five (5) acres in size to accommodate a 25 yard swimming pool and bathhouse facility by 1988-1990.

Facilities within each mini-park should generally include a tot play area, play apparatus for older children, seating areas, 1-2 picnic tables/grills, and teenage/adult games such as horseshoes, shuffleboard or croquet and handball courts, basketball courts or tennis courts.

Community Center -- The Tennessee National Guard is in the process of constructing a new National Guard Armory near the Lebanon Airport. It is recommended that the present armory on South College Street be donated to the City of Lebanon for renovation as a community center. Suggested uses include space for club and civic meetings, game rooms, kitchen facilities, arts and crafts, exercise areas, indoor recreation facilities, etc.

EDUCATION AND CULTURAL

School enrollments in the Lebanon Urban Area for grades K-12 are expected to total 7,664 students by the year 2000. The following recommends a plan for accommodating this enrollment over the planning period.

Lebanon High School

A total of 2,200 students in grades 9-12 are projected for the year 2000. Current capacity of the high school is 1700 students, requiring an addition of 20 new classrooms to the existing facility over the period.

Walker J. Baird Junior High School

A total of 1,257 students are projected for the year 2000 in grades 7-8. The junior high school has a current capacity of 700 students. It is recommended that an additional 22 new classrooms be added to this facility over the period to accommodte all 7-8 grade students.

Elementary Schools

A total of 4,207 students are projected for the year 2000 in grades K-6. This elementary enrollment can be accommodated over the planning period as follows:

1) Add five (5) new classrooms each to Byars-Dowdy, Sam Houston and Carroll-Oakland Schools increasing their capacities to 850, 850 and 700 students, respectively.

2) Utilize the Southside Elementary School at its current capacity of 620 students.

3) Utilize the Market Street School at its current capacity to serve 200 kindergarten students.

4) Close McClain and Highland Heights Schools and build a consolidated, 40 classroom school facility on a minimum 20 acre site in West Lebanon to house 1000 K-6 students.

Lebanon-Wilson County Library

To resolve off-street parking needs, raze the McClain School within the next three (3) year period and provide adequate on-site parking facilities.

Additional staff will be required in operating the expanded facility. In addition, on the basis of one volume per capita, the present stock of 17,500 volumes should be expanded to 33,000 over the planning period.

CHAPTER III

IMPLEMENTATION OF THE GENERAL PLAN

Surely, ignored plans are useless plans. Logical plans for future growth can be developed but must be translated into action if they are to be of any value. Thus, implementation is a crucial part of the planning process. The measures recommended in this Chapter represent means by which the preceding plan proposals may be implemented.

HOUSING AND COMMUNITY REVITALIZATION PROGRAM

Improvement of the physical environment is an imperative need of almost every community. This section explores ways of strengthening and revitalizing the City of Lebanon. The emphasis is on housing and residential areas, however, other areas such as the Central Business District are considered as they affect conditions in the community.

OVERALL STRATEGY

Housing

The Housing Act of 1949 established as its goal "a decent home and a suitable living environment for every American family". This is an admirable goal, and no one will question it. However, it is far from realization, since the problem of substandard housing has been only partially attacked and few families can afford to buy a home in today's housing market.

Considerable attention, reflected in the number of federally-assisted housing programs, has been given to this problem by the national government. Under the public housing program, federal grants provide subsidies to local housing authorities for the purpose of building homes for low income families. The present number of public housing units in the City will not accommodate Lebanon's immediate needs, however, funds for additional public housing units are not presently available. Other rental subsidy programs for low income families have included the Sec. 236, Sec. 8 New Construction, Sec. 8 Moderate and Substantial Rehabilitation, and Sec. 8 Existing. Of these, only the Sec. 8 Existing rent subsidy program remains, but at a substantially reduced level of funding. Lebanon should continue use of the Sec. 8 Existing program as allocations are available. This program provides rent subsidies for low income families to live in private rental units.

There are also programs involving Department of Housing and Urban Development (HUD) Sec. 202 (Elderly) and 221(D)(3) loans which allow private builders and non-profit organizations to construct rental housing for low to middle income groups. These programs should be encouraged by the City of Lebanon if the demand for low and middle income housing cannot be satisfied under existing building practices in the private market.

The HUD Community Development Block Grant (CDBG) program also provides grant funds to local governments for use in direct grant and/or low interest loans to low and moderate income families for housing rehabilitation. The City of Lebanon has utilized this program extensively since 1975, resulting in the rehabilitation of approximately 100 deteriorating dwelling units. Additional CDBG rehabilitation funds are anticipated to be used in the future in association with neighborhood revitalization efforts.

Another approach to the substandard housing problem involves encouraging renters and owners to increase expenditures on their homes. This task can be accomplished through clean-up, paint-up, and fix-up campaigns, coupled with an adequate code enforcement program and the use of rehabilitation grants or low cost loans.

Unfortunately, however, the low income housing need is far greater than it has been possible to accommodate under these programs. Families with several children and annual incomes amounting to less than $7,000-$8,000 cannot buy or rent decent homes no matter how low the mortgage interest rates or rents. Therefore, it can be concluded that substandard housing is part of a larger social and economic problem--poverty. Low and moderate income housing needs for Lebanon are set forth in Appendix A (Housing Assistance Plan).

At the same time, very few families in the middle to higher income categories are able to compete in today's housing market because of high housing prices and high interest rates. While mortgage interest rates have fallen over the past two (2) years from the 17 percent range to the 13 percent level, an average house loan of $63,000 would still require approximately 70 percent of the average family's annual earnings to repay the loan. Innovative financing, such as variable rate mortgages, has permitted more families to purchase homes, with house payments increasing over time as family income increases. Tennessee Housing and Development Agency home financing programs for families earning under $25,000-$30,000 annually have also assisted many families in the purchase of new homes. However, few first time home buyers and others without equity in a present home are able to buy in today's housing market and are, therefore, competing for rental housing units which are also in limited supply at reasonable rates. Innovative home financing, lower interest rates, and reduced inflation in housing prices and construction costs, all appear to be required for home ownership to continue to be an attainable part of the American Dream.

Neighborhood Revitalization

Title I of the Housing Act of 1954 provided federal grants in amounts up to three-fourths of the cost of urban renewal projects. Under this program, communities could clear blighted areas and sell the land for appropriate redevelopment purposes. The Act also allowed cities to restore deteriorating areas and to protect sound areas from blighting influences. In the past, Lebanon implemented several urban renewal projects.

The Urban Renewal Program was replaced by the Housing and Urban Development Act of 1974 which created the Community Development Block Grant (CDBG) program which, on a more limited basis, provides 100 percent grant funds to communities for neighborhood revitalization including rehabilitation of deteriorating dwellings, acquisition and demolition of dilapidated dwellings, relocation of displaced families to standard housing, and public facility improvements. Lebanon has also made extensive use of the CDBG program in several blighted neighborhoods since 1975. This program provides a limited, but powerful tool for halting the speed and spread of blight.

Public Facilities

In addition to the CDBG program, there are several other federal programs which provide grants for the construction and expansion of public facilities. The City of Lebanon is currently utilizing CDBG funds in combination with a 55 percent Environmental Protection Agency (EPA) grant to improve the Municipal Wastewater Treatment Plant and extend interceptor sewers to several unsewered areas of the Community. EPA grants were recently reduced from a 75 percent to a 55 percent matching grant program for the improvement of municipal waste treatment and collection facilities.

These programs aid communities such as Lebanon in providing needed facilities without overtaxing limited local financial resources.

Recreation

The Heritage Conservation and Recreation Service (Department of the Interior), through the Tennessee Department of Conservation, provides grants of up to 50 percent for the acquisition and development of parks and recreation areas. The City of Lebanon has requested grant funds through this program for facilities improvements to several City park locations.

Tax-Incentives

The 1981 Tax Recovery Act provides incentives for private restoration of older commercial structures in the form of up to a 25 percent tax write-off for the cost of restoring a building designated on the National Register of Historic Structures. A historically significant building 50 years of age or more is eligible for historic register designation. As building age decreases, the amount of tax write-off decreases accordingly. This incentive has proven to be a powerful tool for revitalization efforts in Central Business Districts and other older commercial areas.

Code Enforcement

An adequate code enforcement program is essential to any community where attempts are being made to improve living conditions. The building code enforces minimum standards of structural quality and

safety in the construction of new buildings. The housing code insures that dwellings are maintained in a safe and healthful manner.

The enforcement of these codes benefits the entire community by helping to prevent the spread of blight and its adverse effect on adjacent property values. It is an inexpensive way of preventing the development of slum areas and the resulting high costs of police, fire, and health protection.

Other Considerations

The Urban Development Action Grant (UDAG) Program, administered by HUD, provides another useful tool to assist revitalization efforts in distressed cities by stimulating economic development, which in turn will create new permanent jobs and net new tax revenues. Through this program, grant funds are available to eligible cities for loans and other uses in conjunction with specific private commercial and industrial construction projects. UDAG funds provide "gap" money in sufficient amounts to make private projects attractive and workable for private investors/developers. The City of Lebanon is encouraging the utilization of this program in various local private development projects.

There are other federal programs such as the Urban Streets Program which can aid Lebanon in implementing its community plan. Local officials should keep abreast of all such aids to plan implementation, and utilizing such aids where project feasibility is justified on the basis of sound cost-benefit-need and analysis.

A PLAN FOR RENEWAL

A community's physical environment can be revitalized in several ways. The more common measures are referred to as conservation, rehabilitation, and clearance. Conservation is concerned with the maintenance of sound structures and facilities; whereas, clearance is the removal or demolition of those that are dilapidated and cannot economically be repaired. Rehabilitation implies the renovation of deteriorating structures or up-grading of other aspects of the physical environment such as water and sewer facilities, streets, and sidewalks.

The tools generally used for community revitalization have already been discussed. A general application of these renewal techniques to Lebanon is discussed below and graphically depicted on Illustration 13.

Sound Structures to be Conserved

The new and basically sound housing in Lebanon, such as that which exists in the westerly segment of the community, is subject to conservation measures. However, the emphasis should be placed on the older structures such as those found along Pennsylvania Avenue and South Tarver Avenue, since older structures are more apt to become substandard through lack of maintenance.

Structural improvement campaigns should be continually encouraged among property owners in sound neighborhoods. Also, the judicious use of the building code, and zoning and subdivision controls will insure that all new structures are properly built, free from blighting influences, and adequately served by public facilities.

Deteriorated Structures to be Rehabilitated

A housing code enforcement program should be effectively carried out throughout Lebanon, but particularly in the older neighborhoods with a high incidence of substandard structures. In areas where the City would have an on-going CDBG revitalization project, homeowners or owners of rental units who could not afford privately to rehabilitate their dwellings would be advised of the availability of CDBG rehabilitation grants or low interest loans for such purposes.

Dilapidated Structures to be Cleared

Clearance of dilapidated dwellings in areas with an on-going CDBG revitalization project can be accomplished through use of CD grant funds to acquire the property, relocate the family to standard housing, and clear the property for re-use. In other areas, however, clearance of a dilapidated structure would usually be accomplished through code enforcement action with the cost born by the property owner.

Non-Conforming Structures to be Removed or Relocated

Mixed uses or structures incompatible to the predominant use of the zoning district in which they are located are usually recommended for removal or relocation over a period of time to implement the plan for community development. In the case of business structures this is normally accomplished through zoning restrictions to prevent the expansion of a non-conforming use, to prevent the rebuilding of a non-conforming use if substantially destroyed by fire or other catastrophe, or to prevent the continuation of a non-conforming use if it has not been active over a specified period of time. Such restrictions are effective over time, but should be applied in a manner which will not unduly discourage private development investments and a healthy level of economic activity in the community.

Ordinarily, the owners of business or industry are affected by the elimination of non-conformity; however, they must be given ample time to amortize their operations and, if relocation is necessary, any possible assistance in the relocation of operations. Incongruous structures not firmly stationed, such as non-conforming signs, should be moved within a shorter period of time.

Revitalization Project Areas

Eleven areas in Lebanon and two (2) areas adjacent to the corporate limits are designated as revitalization project areas. Project areas one through nine (9), which include the Central Business District

(Area 4) and the Blue Bird Road Area (Area 9) outside of the City limits, cover sizeable geographic areas, represent the primary concentrations of blighted conditions in the community, and require extensive revitalization efforts including conservation, rehabilitation and spot clearance, as well as various public facilities improvements. Remaining project areas 10 through 13, which includes Old Murfreesboro Road Area (Area 13) outside of the City, are much smaller in size but represent concentrations of blighted conditions requiring revitalization treatment. Areas located outside of the City should not be considered for active revitalization efforts unless they are first annexed to the City.

Revitalization project areas, shown on Illustration 13, are described in more detail as follows:

Project Area 1: This proposed treatment area is located to the west of North Cumberland Street and to the north and south of Coles Ferry Pike. Of the 231 structures located within the area, 98 are deteriorating and six (6) are dilapidated. The area is now used predominantly for residential purposes and the bulk of the area is scheduled to remain in residential use over the planning period.

In addition to the need for extensive residential rehabilitation, minor spot clearance is required as well as street and water system improvements. Street and drainage improvements have been completed along Coles Ferry Pike. Total costs for rehabilitation, spot clearance, and public facilities improvements are estimated to exceed $1.8 million. Sources of funds include CD Block Grants, local revenues, and private funds.

Project Area 2: This area is located to the west of North Cumberland Street and north of East High Street. Of the total 157 structures in the area, 76 are deteriorating and six (6) are dilapidated. This area is also predominantly in residential use and is scheduled to remain so over the planning period. Extensive residential rehabilitation is required, together with minor spot clearance and improvements to streets, water and sewer systems. Total costs are expected to exceed $1.5 million. Sources of funds include CD Block Grants, local revenues, and private funds.

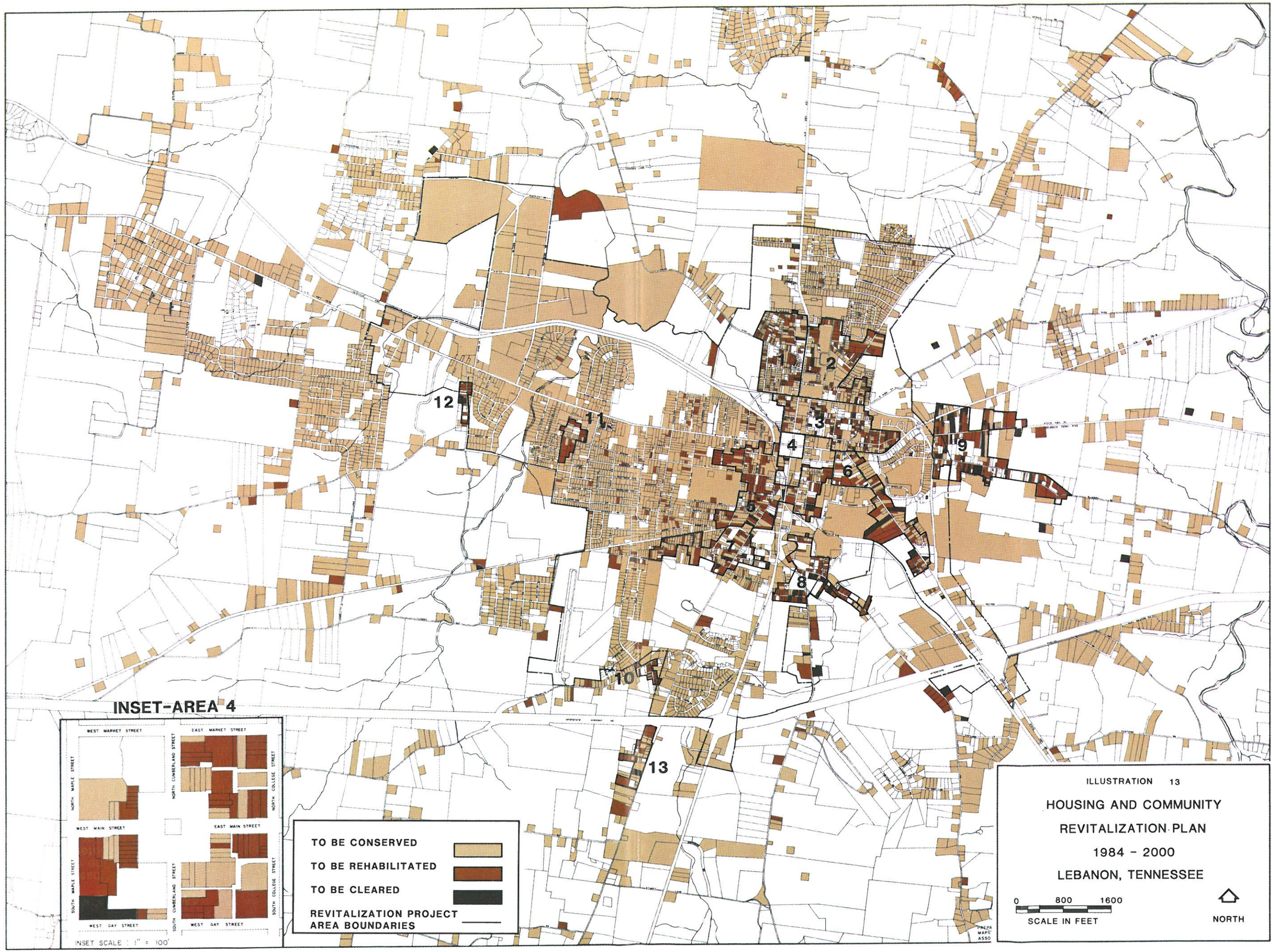
Project Area 3: Area 3 is generally located between High Street and Main Street, and is characterized as a mixed use area in transition. Land uses along High Street, Main Street and Cumberland Street are primarily commercial while the balance of the area is largely residential. Of the 222 total structures in the area, 105 are deteriorating and 30 are dilapidated. The bulk of this area is expected to provide for Central Business District expansion over the planning period in the Land Use Plan. Much of the area is presently zoned for commercial development. Private commercial redevelopment of land presently utilized for residences is expected to assist in revitalization of the area. Public expenditures for public facilities improvements will be required to stimulate the necessary private commercial investments for effective revitalization of the area.

ILLUSTRATION 13

HOUSING AND COMMUNITY
REVITALIZATION PLAN

LEBANON, TENNESSEE

YEAR 2000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INSET-AREA 4
WEST MARKET STREET
EAST MARKET STREET
NORTH MAPLE STREET
NORTH CUMBERLAND STREET
NORTH COLLEGE STREET
WEST MAIN STREET
EAST MAIN STREET
SOUTH MAPLE STREET
SOUTH CUMBERLAND STREET
SOUTH COLLEGE STREET
WEST GAY STREET
EAST GAY STREET
INSET SCALE : 1" = 100'
TO BE CONSERVED
TO BE REHABILITATED
TO BE CLEARED
REVITALIZATION PROJECT AREA BOUNDARIES
ILLUSTRATION 13
HOUSING AND COMMUNITY REVITALIZATION PLAN
1984 - 2000
LEBANON, TENNESSEE
0 800 1600
SCALE IN FEET
NORTH

Total costs for rehabilitation, spot clearance, and public facility improvements are expected to exceed $2.0 million. Necessary private investments for redevelopment will be significantly greater than these indicated costs over the planning period.

Project Area 4 (CBD): Substantial public and private investment will be required for revitalization and subsequent expansion of the Central Business District. As previously noted, almost 50 percent of the 85 existing structures are in substandard condition. Recommendations for resolving inadequate off-street parking and traffic congestion have been set forth, together with estimated improvements costs in the public improvements program section.

Subsequent more detailed analysis will be required to determine valid cost estimates for necessary commercial rehabilitation efforts required.

Project Area 5: This area extends between Main Street and Leeville Pike and is located to both the east and west of South Cumberland Street. Of the total 238 structures in the area, 131 are deteriorating and 14 are dilapidated. The area presently reflects a mix of commercial, industrial and residential uses. Over the planning period, this area will accommodate CBD expansion to the south and, as well, is scheduled to retain industrial uses in the easterly segment. Residential uses are expected to remain at the westerly fringe.

Total costs for rehabilitation, spot clearance, and public improvements are estimated to exceed $4.0 million. Much of this cost, in addition to redevelopment related costs, can be expected to be born through private commercial investments.

Project Area 6: This area is located along Park Avenue. Of the 104 structures in the area, 49 are deteriorating and 10 are dilapidated. Land uses in the area reflect a mix of residential and commercial activities. While the area is scheduled for continued future residential use, commercial and industrial development pressures can be anticipated.

Project Area 7: This area is located south of Leeville Pike and extends from Cleveland Street almost to South Cumberland Street. Residential uses predominate in the area and are scheduled to continue over the planning period. Of the total 123 structures in the area, 50 are deteriorating and 14 are dilapidated. Total costs for rehabilitation, spot clearance and public facilities improvements are estimated to exceed $1.0 million.

Project Area 8: This area is located to the west of South Cumberland Street along Cainesville Pike. The bulk of the area is zoned for industrial uses, however, many residential structures exist. Of the total 94 structures in the area, 58 are deteriorating and 19 are dilapidated. The anticipation of continuing industrial redevelopment of the area precludes consideration for extensive residential rehabilitation. However, the need for public facility improvements

are anticipated in concert with private development investments to accomplish area revitalization for industrial purposes.

Project Area 9: This area is located adjacent to the easterly corporate limits boundary along Blue Bird Road, and U.S. Highway 70 North. Upon future annexation, an extensive codes enforcement program should be undertaken in the area in conjunction with other revitalization activities. In the interim, however, clean-up, paint-up, fix-up campaigns should be encouraged among the area residents, as well as additional voluntary conservation, rehabilitations and spot clearance activities. Of the total 143 structures in the area, 72 are deteriorating and 43 are dilapidated. Total costs for rehabilitation, clearance and public facility improvements could be expected to exceed $2.5 million. Residential uses are expected to predominate in the future, even though a number of commercial uses presently exist in the area.

Project Area 10: This smaller revitalization project area is located along Franklin Pike adjacent to the corporate limits boundary. Of the total 18 structures in this area, 16 are deteriorating. The area is predominantly residential in character and is scheduled to remain so during the planning period. Since this area is now outside of the City, actions similar to those recommended for Project Area 9 should be instituted.

Total costs for rehabilitation can be expected to exceed $220,000.

Project Area 11: This project area is located on West Spring Street south of West Main Street. Sixteen of the total 31 structures in the area are deteriorating and one is dilapidated. The area is residential in character and is scheduled to be retained in residential use over the planning period.

Total costs for rehabilitation and spot clearance in this area are also expected to exceed $220,000.

Project Area 12: This project area is located along Rocky Road south of West Main Street. All of the 13 residential structures in the area are substandard, with 10 in deteriorating condition and three (3) in dilapidated condition. The area is scheduled to remain in residential use in the future.

Total costs for rehabilitation and spot clearance are expected to exceed $175,000.

Project Area 13: This project area is located south of Interstate Highway 40 outside of the corporate boundary along Old Murfreesboro Road. Of the total 31 structures in the area, 12 are deteriorating and one is dilapidated. The area is residential in character and is expected to remain so during the planning period. Actions such as those recommended for Project Area 9 are also recommended for this area.

Total costs for rehabilitation, spot clearance, and public facility improvements are expected to exceed $350,000.

Remedial Program For Lebanon

This section attempts to outline and schedule the major actions through which the quality of the environment in Lebanon can be improved. Improvement actions included in the remedial program are the code inspection and compliance program by the City, revitalization projects by the City (utilizing CDBG funds and local revenues in concert with private resources), and conservation and rehabilitation actions by individual residents and business owners.

Housing Code Compliance Program: The schedule for remedial action, outlined in Table XIX, includes both residential and non-residential structures. A housing code inspection and compliance schedule can be formulated simply by omitting non-residential structures from this table. The schedule for remedial action recommends that attention first be given to the areas containing the largest number of concentrated substandard structures, but attempts to distribute the workload of inspection and compliance as evenly as feasible throughout the schedule time frame.

Additional consideration regarding target dates for completion under the Schedule for Remedial Action include:

(1) Project Areas 3, 4 and 5 include the CBD and those areas which will contain expansion of the CBD over the planning period. Private investments and redevelopment activities are expected to play the primary role in revitalization and expansion of business activities in these areas. Early strategic public actions and expenditures, however, are mandatory to stimulate private investments in these areas, particularly in the improvement of public facilities to resolve parking and traffic congestion problems, and in the replacement/upgrading of other essential facilities. Revitalization and redevelopment of these areas is expected to occur over the planning period, from 1984 through the year 2000.

(2) Project Area 8 is also expected to be revitalized largely due to private investments in heavy commercial and industrial expansion in the area. Again, strategic public facilities improvements will play a vital role in stimulating private investment. Completion of area revitalization is anticipated to occur over the planning period.

(3) Areas 9, 10 and 13 are presently outside of the corporate boundary and the anticipated target dates for completion of revitalization activities reflects a lower priority compared with other scheduled project area treatment actions within the City.

(4) Part II of the Schedule for Remedial Treatment includes the balance of substandard structures and implies the application of codes enforcement action over the span of the planning period.

Other Codes Compliance: Building, plumbing, gas, and electrical codes are in effect and should be enforced where possible on all structures, old or new.

Revitalization Projects: Areas designated for revitalization have been scheduled in Table XIX to allow the City maximum time for meeting the largest potential relocation demand and to supplement local efforts where possible with Community Development Block Grants and other available federal grant and loan funds.

Zoning Compliance Program: Nonconforming or incompatible uses in Lebanon will be identified in the City's zoning ordinance. Timing with respect to removal or relocation of specific non-conforming uses in particular neighborhoods should be determined on the basis of:

1. Time required to amortize investment in the property;

2. Availability of accommodations to meet relocation needs arising from the removal of the structure; and

3. Immediacy of need to utilize the property in revitalizing/ redeveloping the area.

Citizen's Participation in Neighborhood Improvement: The success of the City's program of code enforcement and compliance, and neighborhood revitalization generally depends importantly upon the individual residents. They can contribute vitally toward improving their environment by conserving and maintaining those structures which are in sound condition, and rehabilitating those which are now deteriorating.

PUBLIC IMPROVEMENTS PROGRAM

What are public improvements? Generally speaking, the term is used to describe projects of a large size, fixed nature, or long life which provide facilities or services to the general public. It includes items such as schools, roads, parks, public buildings, and water and sewer facilities. Major replacements and reconstructions are also considered to be public improvements.

The public improvements program is an orderly scheduling of proposed improvements to be provided by the Community over the planning period. It establishes priorities concerning recommended improvements based on relative need and, of course, on the Community's present and anticipated financial standing.

TABLE XIX
SCHEDULE FOR REMEDIAL ACTION
LEBANON, TENNESSEE, 1984-2000

PART I - REVITALIZATION

PROJ. AREA	LOCATION	TYPE OF STRUCTURES	NO. OF STRUCTURES	PROPOSED TREATMENT	TARGET DATES FOR COMPLE-TION
1	North Cumberland (West)	Residential	97	Rehabilitation	1984-
		Residential	4	Clearance	1987
		Non-Residential	1	Rehabilitation	
		Non-Residential	2	Clearance	
2	North Cumberland (East)	Residential	75	Rehabilitation	1987-
		Residential	4	Clearance	1990
		Non-Residential	1	Rehabilitation	
		Non-Residential	2	Clearance	
3	Between High Street and Main Street	Residential	50	Rehabilitation	1985-
		Residential	77	Clearance	2000
		Non-Residential	4	Rehabilitation	
		Non-Residential	4	Clearance	
4	Central Business District	Non-Residential	47	Rehabilitation	1985-
		Non-Residential	2	Clearance	2000
5	South Cumberland - Spring Street Area	Residential	85	Rehabilitation	1985-
		Residential	50	Clearance	2000
		Non-Residential	9	Rehabilitation	
		Non-Residential	1	Clearance	
6	Park Avenue	Residential	49	Rehabilitation	1992-
		Residential	9	Clearance	1994
		Non-Residential	1	Clearance	

PROJ. AREA	LOCATION	TYPE OF STRUCTURES	NO. OF STRUCTURES	PROPOSED TREATMENT	TARGET DATES FOR COMPLE-TION
7	Leeville Pike	Residential	50	Rehabilitation	1990-1992
		Residential	14	Clearance	
8	Cainsville Pike	Residential	25	Rehabilitation	1985-2000
		Residential	44	Clearance	
		Non-Residential	5	Rehabilitation	
		Non-Residential	3	Clearance	
9	U.S. Hwy. 70 North - Trousdale Ferry Pike - Bluebird Rd.	Residential	72	Rehabilitation	1994-2000
		Residential	41	Clearance	
		Non-Residential	2	Clearance	
10	Franklin Pike	Residential	16	Rehabilitation	1994-2000
11	West Spring Street	Residential	16	Rehabilitation	1990-1992
		Residential	1	Clearance	
12	Rocky Road	Residential	10	Rehabilitation	1990-1992
		Residential	3	Clearance	
13	Old Murfreesboro Rd.	Residential	12	Rehabilitation	1994-2000
		Residential	1	Rehabilitation	

PART II - OTHER COMMUNITY ACTION					
PROJ. AREA	LOCATION	TYPE OF STRUCTURES	NO. OF STRUCTURES	PROPOSED TREATMENT	TARGET DATES FOR COMPLE-TION
	Balance of City and Urban Area	Residential	244	Rehabilitation	1985-2000
		Residential	33	Clearance	
		Non-Residential	20	Rehabilitation	
		Non-Residential	5	Clearance	

Source: Lebanon - Wilson County Planning Office;
John Coleman Hayes and Associates, Inc.
Engineers, Architects and Planners

Note: 1) Part II includes the balance of structures located outside of the corporate boundaries--application of remedial treatment measures such as the City's codes compliance program would, of course, be subject to annexation of these structures.

2) Sound structures are not indicated in the above table since they are subject to continuing conservation measures.

JUSTIFICATION OF PRIORITIES

The most difficult problem in programming public improvements involves the establishment of priorities. This problem consists of two closely related parts--the determination of priorities among needs within a specific functional field and the determination of relative urgencies among all functional fields.

Community needs, both existing and future, have already been determined in the preceding chapter of this report. These needs now serve as inputs to help establish priorities within functional fields and relative urgencies among functional fields.

For each functional field, priorities can be determined by expressing needs as functions of accepted common standards, and, subsequently, finding their relative deviation from the accepted standards. All things being equal, within any functional field, the needs which show the greatest deviation from established standards should receive the highest priorities. Similarly, among functional fields, those with the greatest deviation from established standards should receive the highest relative urgencies. This comparative scale can thus be employed to bring all fields into proper perspective concerning their deviation from acceptable standards.

However, this approach is based on the assumption that all functional fields are equally important. Therefore, some qualification is necessary, since services differ in terms of their essentiality to the community. For example, a community may not have a golf course. Furthermore, it's water filtration plant may be serviceable but outmoded and incapable of delivering water of sufficient quality. Using the deviation from standard scale, the golf course would receive priority. However, it is obvious that, due to the significant threat to the public health, the water plant should receive priority. Thus, in this case, essentiality would take precedence over deviation from standard.

This example clearly demonstrates the necessity for consideration of factors other than deviation from standard. The weight employed to gauge relative essentiality of services are often not capable of exact measurement, at least not in the way that functional standards are determined. Obviously, some services are essential to the survival of the community; others merely augment these services, but are not necessarily essential. Still other services provide for the amenities of life and, while desirable, are not essential.

There is also another element which should be considered in establishing priorities--time of need. Functions which are adequate at the present time may become outmoded in the very near future as the result of greater demand; and others which are presently inadequate may face a future declining demand. Therefore, an adequate existing function which will be overtaxed in the immediate future may take precedence over an inadequate existing function.

The following general criteria were employed in establishing priorities for Lebanon's proposed public improvements:

1. Protection of life.
2. Maintenance of public health.
3. Protection of property.
4. Conservation of resources.
5. Maintenance of physical property.
6. Provision of public services.
7. Replacement of obsolete facilities.
8. Reduction of operating costs.
9. Public convenience and comfort.
10. Recreation value.
11. Economic value.
12. Social, cultural, and aesthetic value.
13. Promotional value through effect on future developments.
14. Relative value with respect to other services.

SCHEDULE OF PUBLIC IMPROVEMENTS

Illustration 14 lists in order of priority the public improvements needed by the City of Lebanon to the year 2000, and shows the spatial distribution of these improvements. All of the foregoing general criteria as well as the outlined preceding considerations were employed in determining these priorities. Following the illustration is a brief explanation of each proposal.

PHASING OPERATIONS

Once public improvements have been established in order of most urgent priority, the long-range program should be reduced to manageable proportions with respect to time. This process is termed as "phasing". By dividing the program into five- or six-year time periods, the development of detailed facility planning is made easier, and the relative emphasis given to various functions at specific time intervals becomes clear.

The principal purpose of the phasing operation is to provide for the functional distribution of all projects over time and to indicate how the plan will become a reality. Phasing provides the basis for the capital budget which describes in detail how the projects are to be financed within the framework of the community's annual budget.

For convenience, Lebanon's public improvements program has been generally divided into five-year phases. The improvements to be undertaken are listed by priority in the appropriate phases of the program. Also included are project cost estimates and possible means of financing improvements. The cost estimates are based on information concerning recent construction projects, current bid data, and local surveys; however, they do not allow for future increases in the cost of land, labor, and materials.

ILLUSTRATION 14

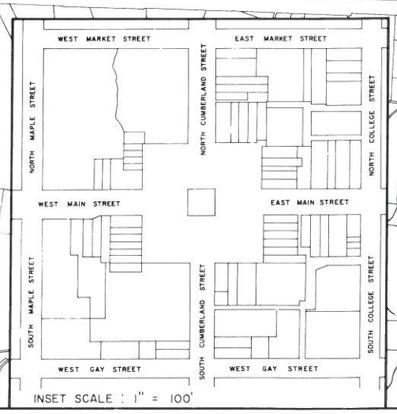
PROPOSED PUBLIC IMPROVEMENTS

LEBANON, TENNESSEE

YEAR 1984-1989

1. AIRPORT IMPROVEMENTS
2. NEW MUNICIPAL PARKING GARAGE
3. ADDITIONAL CITY HALL STORAGE SPACE
4. NEW POLICE DEPARTMENT BUILDING
5. FIRE DEPARTMENT BUILDING IMPROVEMENTS
6. NEW SOLID WASTE TRANSFER STATION (COUNTY)
7. WASTEWATER TREATMENT PLANT EXPANSION
8. NEW INTERCEPTOR SEWER LINES
9. ADDITIONAL SEWER COLLECTION LINES
10. NEW WATER STORAGE FACILITY
11. ADDITIONAL WATER DISTRIBUTION LINES
12. NEW MUNICIPAL SWIMMING POOL
13. NEW AMPITHEATER
14. RENOVATE ARMORY FOR COMMUNITY CENTER
15. NEW NEIGHBORHOOD MINI-PARKS
16. OTHER RECREATION IMPROVEMENTS
17. LEBANON HIGH SCHOOL IMPROVEMENTS*
18. WALTER J. BAIRD SCHOOL, CLASSROOM EXPANSION*
19. NEW ELEMENTARY SCHOOL*
20. SOUTHSIDE SCHOOL IMPROVEMENTS*
21. MARKET STREET SCHOOL, SITE EXPANSION AND PARKING*
22. LEEVILLE ROAD EXTENSION
23. COLES FERRY PIKE EXTENSION
24. NORTH GREENWOOD EXTENSION
25. NEW BY-PASS
26. COMMUNITY REVITALIZATION PROJECTS (SEE REVITALIZATION MAP AND SCHEDULE)

*BY COUNTY/SCHOOL DISTRICT



INSET SCALE : 1" = 100'

ILLUSTRATION 14

PROPOSED PUBLIC IMPROVEMENTS

1984 - 1989

LEBANON, TENNESSEE

0 800 1600

SCALE IN FEET

NORTH

ILLUSTRATION 14A

PROPOSED PUBLIC IMPROVEMENTS

LEBANON, TENNESSEE

YEAR 1990-1995

1. AIRPORT RUNWAY EXTENSION
2. WASTEWATER TREATMENT PLANT EXPANSION
3. ADDITIONAL SEWER COLLECTION LINES
4. NEW WATER STORAGE FACILITY
5. ADDITIONAL WATER DISTRIBUTION LINES
6. NEW SWIMMING POOL
7. NEW NEIGHBORHOOD MINI-PARKS
8. OTHER RECREATION IMPROVEMENTS
9. LEBANON HIGH SCHOOL , CLASSROOM EXPANSION*
10. WALTER J. BAIRD JUNIOR HIGH SCHOOL, CLASSROOM EXPANSION*
11. BYARS-DOWDY SCHOOL, CLASSROOM EXPANSION*
12. SAM HOUSTON SCHOOL, CLASSROOM EXPANSION*
13. CARROLL-OAKLAND SCHOOL, CLASSROOM EXPANSION*
14. DAWSON LANE EXTENSION
15. NEWBY STREET IMPROVEMENT
16. FRANKLIN ROAD IMPROVEMENT/EXTENSION
17. NEW BY-PASS
18. S.R. 24 BY-PASS IMPROVEMENT
19. COMMUNITY REVITALIZATION PROJECTS (SEE REVITALIZATION MAP AND SCHEDULE)

*BY COUNTY/SCHOOL DISTRICT

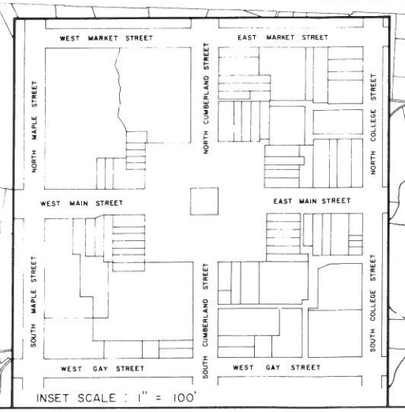


ILLUSTRATION 14 A

PROPOSED PUBLIC IMPROVEMENTS

1990 - 1995

LEBANON, TENNESSEE

0 800 1600

SCALE IN FEET

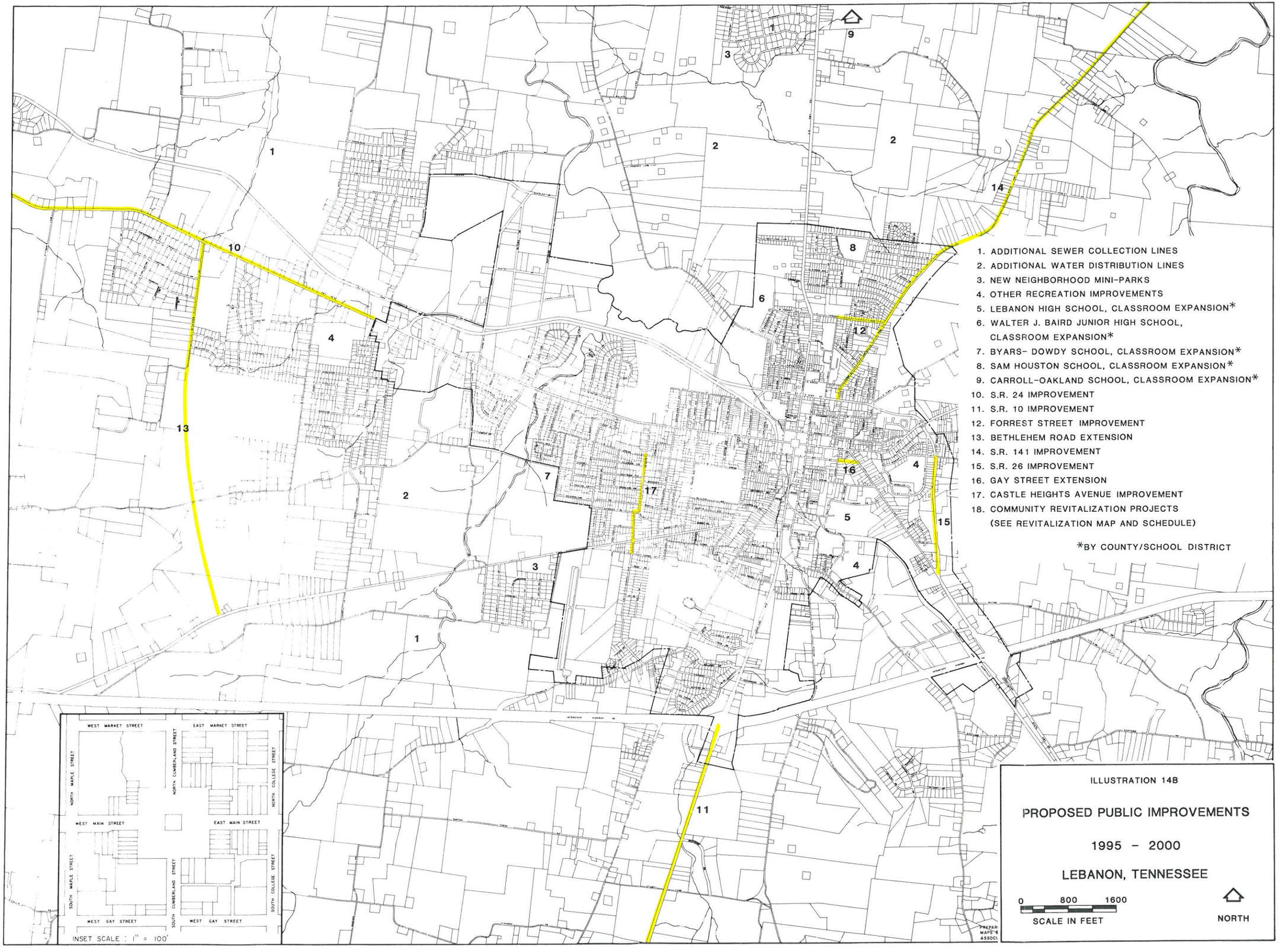
NORTH

ILLUSTRATION 14B

PROPOSED PUBLIC IMPROVEMENTS

LEBANON, TENNESSEE

YEAR 1995-2000



1. ADDITIONAL SEWER COLLECTION LINES
2. ADDITIONAL WATER DISTRIBUTION LINES
3. NEW NEIGHBORHOOD MINI-PARKS
4. OTHER RECREATION IMPROVEMENTS
5. LEBANON HIGH SCHOOL, CLASSROOM EXPANSION*
6. WALTER J. BAIRD JUNIOR HIGH SCHOOL, CLASSROOM EXPANSION*
7. BYARS- DOWDY SCHOOL, CLASSROOM EXPANSION*
8. SAM HOUSTON SCHOOL, CLASSROOM EXPANSION*
9. CARROLL-OAKLAND SCHOOL, CLASSROOM EXPANSION*
10. S.R. 24 IMPROVEMENT
11. S.R. 10 IMPROVEMENT
12. FORREST STREET IMPROVEMENT
13. BETHLEHEM ROAD EXTENSION
14. S.R. 141 IMPROVEMENT
15. S.R. 26 IMPROVEMENT
16. GAY STREET EXTENSION
17. CASTLE HEIGHTS AVENUE IMPROVEMENT
18. COMMUNITY REVITALIZATION PROJECTS (SEE REVITALIZATION MAP AND SCHEDULE)

*BY COUNTY/SCHOOL DISTRICT

ILLUSTRATION 14B

PROPOSED PUBLIC IMPROVEMENTS

1995 - 2000

LEBANON, TENNESSEE

0 800 1600

SCALE IN FEET

NORTH

Cost estimates and priority designations are not set forth for the following listed facilities, which are within the planning and financing responsibility of private or quasipublic entities, or governmental units other than the City of Lebanon.

(1) Health Facilities Public health center, hospitals, nursing homes, mental health center.
(2) Wilson County Courthouse and the Baddour County office building.
(3) Wilson County Sheriff's Department and Jail.

All projects for which the City has total responsibility or those which may be costshared with another governmental unit are included in the following phasing considerations. School facilities needs are also included even though they do not fall within the fiscal responsibility of the City of Lebanon.

Phase I, 1984-1989

Airport Improvements: Installation of a tank for jet fuel, construction of an additional teehangar and tie down space and construction of an additional hangar are estimated to cost a total of $165,000. Financing is anticipated to come from a 75 percent grant from the Federal Aviation Administration (FAA), matched by 25 percent funding to be equally shared by the State of Tennessee (Civil Aeronautics Board) and general obligations bonds by the City of Lebanon.

Municipal Parking Improvements: Construction of a 275 space municipal parking garage on the Countyowned surface parking lot at the southwest corner of the Public Square is estimated to cost approximately $1.7 million dollars. Financing would be provided through the sale of revenue bonds, possibly assisted through an Urban Development Action Grant.

City Hall Improvement: The cost of providing additional storage space is estimated to be approximately $35,000.

New Police Department Building: Acquisition of a three (3) acre site on Gay Street and construction of a new 10,000 square foot building are estimated to cost approximately $525,000. Financing would be provided through the sale of general obligation bonds. Additional patrol cars and other equipment for the period could be expected to approximate $75,000.

Fire Department Improvements: The cost of new equipment and building improvements at the central station are expected to approximate $250,000 for the period.

Solid Waste Disposal Improvements: Provision of a new truck and other needed equipment at the landfill site, together with construction of a transfer station on a 10 acre site, are estimated to cost in the range of $250,000. Financing is expected to be from general revenues of the County or through revenue bonds by the County.

Wastewater System Improvements: Construction of the presently scheduled wastewater treatment facility improvements, the Sinking Creek interceptor sewer line and the Watertown Highway interceptor sewer line are estimated to cost $6.8 million. Financing will be provided by a 55 percent Environmental Protection Agency (EPA) Grant, a $500,000 Community Development Block Grant (CDBG), and the sale of revenue bonds.

Subsequent wastewater system improvements for this period include the construction of the Barton's Creek interceptor sewer line and the Blair Lane interceptor sewer line at an estimated cost of $1.3 million. Financing arrangements are expected to be similar to those for the currently scheduled improvements.

In addition, over 50,000 feet of eight (8) inch mains will be required to serve existing development along the Sinking Creek Interceptor in West Lebanon and along the Watertown Highway Interceptor in south Lebanon at an estimated cost of approximately $750,000. To be financed by revenue bonds.

Water System Improvements: Construction of an additional 2.0 million gallon water storage facility is estimated to cost $500,000. Financing is expected to be provided through the sale of revenue bonds.

The extension of additional distribution lines during this period is expected to approximate a cost of $250,000.

Recreational Improvements: Major facilities recommended to be provided for this phase include the following:

(1) Construction of a 50 meter swimming pool at the William D. Baird Municipal Park at an estimated cost of $400,000.

(2) Construction of an amphitheater, also at Baird Park, for outdoor concerts, plays and other special events to accommodate 2,500 people. Estimated cost would exceed $50,000.

(3) Renovation of the National Guard Armory Building for a Community Center. Estimated cost would be approximately $200,000.

(4) Provide five (5) mini-parks with neighborhood service areas at a cost estimate of approximately $300,000.

(5) Provide other facilities recommended for existing recreation areas at an estimated cost of approximately $175,000.

Financing of the proposed facilities would be provided from general fund revenues, general obligations bonds, private donations, and the Heritage Conservation and Recreation Service (HCRS). Cost estimates assume that recreational facilities provided at the Ward Agricultural Center will be financed by Wilson County.

School Facilities Improvements:

(1) Lebanon High School -- Update mechanical equipment and other improvements at an estimated cost of $200,000.

(2) Walter J. Baird Junior High School -- Add eight (8) new classrooms to accommodate all 7-8 grade students and growth to 1990 at an estimated cost of $220,000.

(3) McClain and Highland Heights Schools -- Close these schools and build a new consolidated 40 classroom school on a minimum 20 acre site at an estimated cost of $1.6 million.

(4) Southside School -- Replace roof, renovate, and expand library and cafeteria space at an estimated cost of $200,000.

(5) Market Street School -- Expand site to meet minimum State requirements and provide adequate parking at an estimated cost of $75,000.

All of the above recommended improvements would be financed through the sale of general obligations bonds.

Major Thoroughfare Improvements: This phase would include the following thoroughfare improvements and estimated costs.

(1) Leeville Road Extension (Greenwood to State Route 10) -- Estimated cost of $550,000.

(2) Coles Ferry Pike Extension (Lebanon City Limits to State Route 10) -- Estimated cost of $517,000.

(3) Leeville Road Extension (State Route 10 to Park Avenue) -- Estimated cost of $1,385,000.

(4) North Greenwood Extension (West Forrest to State Route 10) -- Estimated cost of $440,000.

(5) New By-Pass (Franklin Road to State Route 24 By-Pass) -- Estimated cost of $8,225,000.

(6) New By-Pass (State Route 24 By-Pass to State Route 10) -- Estimated cost of $5,925,000.

The cost of the New By-Pass is expected to be financed by the Tennessee Department of Transportation and the Federal Government on a matching basis, while other improvements will be carried out through the use of Federal-Aid Urban Street Program funds, state street-aid funds, and local funds.

Community Revitalization Projects:

(1) Project Area 1 (North Cumberland Street West) -- Complete revitalization activities in this area by 1987 at an estimated cost of approximately $1.8 million. Financing is expected to reflect a combination of Community Development Block Grant funds, general fund expenditures, and expenditures by homeowners.

(2) Project Area 2 (North Cumberland Street East) -- Complete revitalization activities in the area by 1989 at an estimated cost of approximately $1.5 million. Financing is expected to be the same as for Project Area 2.

(3) Initiate citywide codes enforcement program, coordinated with a schedule of neighborhood public facility improvements, in 1984-1985, with efforts to be concentrated in Project Areas 3, 4, 5 and 8. Costs are estimated to approximate $2.2 million (exclusive of new private construction and rehabilitation) with financing to be provided through Urban Development Action Grants, general fund revenues, private developers/investors, and expenditures by home and business owners.

Phase II, 1990-1995

Airport Improvements: Construct a 1500 foot runway extension at an estimated cost of $300,000. Financing would be through a 75 percent FAA grant, matched by 25 percent funding to be equally shared by the State and the City of Lebanon.

Wastewater System Improvements: Double capacity of the wastewater treatment plant at an estimated cost of $5.0 million. Financing would be expected to reflect a combination of EPA grants, CDBG funds, and revenue bond sales.

Construction of additional collection lines to serve growth for the period is estimated to cost approximately $1,300,000. Financing would be provided through the sale of revenue bonds.

Water System Improvements: Construction of an additional 2.0 million gallon water storage facility to meet needs through the year 2000 is estimated to cost $500,000. Financing would be provided through the sale of revenue bonds.

The extension of additional distribution lines during this period is expected to cost an estimated $300,000.

Recreational Improvements: Major facilities recommended to be provided during this phase include the following:

(1) Construct a 25 yard swimming pool in the new neighborhood park proposed for West Lebanon at an estimated cost of $250,000.

(2) Add three (3) additional mini-parks with neighborhood service areas at an estimated cost of $180,000.

(3) Provide other facilities recommended for existing recreation areas at an estimated cost of $150,000.

Financing would be derived through the previously identified resources.

School Facilities Improvements:

(1) Lebanon High School -- Add eight (8) new classrooms at an estimated cost of $220,000.

(2) Walter J. Baird Junior High School -- Add seven (7) classrooms at an estimated cost of $192,500.

(3) Byars-Dowdy School -- Add three (3) new classrooms at an estimated cost of $82,500.

(4) Sam Houston School -- Add three (3) new classrooms at an estimated cost of $82,500.

(5) Carroll-Oakland School -- Add three (3) new classrooms at an estimated cost of $82,500.

Major Thoroughfare Improvements: This phase would include the following thoroughfare improvements and estimated costs.

(1) Dawson Lane Extension (State Route 24 to Leeville Road) -- Estimated cost of $652,000.

(2) Newby Street (Maple Street to State Route 10) -- Estimated cost of $86,000.

(3) Franklin Road (Urban Area Boundary to State Route 26; also extend new connector from Airport to New By-Pass) -- Estimated cost of $3,500,000.

(4) New By-Pass (State Route 10 to State Route 141) -- Estimated cost of $1,528,000.

(5) State Route 24 By-Pass (State Route 24 to just west of North Greenwood Street) -- Estimated cost of $1,032,000.

The cost of the New By-Pass is expected to be financed by the Tennessee Department of Transportation and the Federal Government on a matching basis, while other improvements will be carried out through the use of Federal-Aid Urban Street Program funds, state street-aid funds, and local funds.

Community Revitalization Projects:

(1) Complete revitalization activities for Project Areas 7, 11, and 12 by 1992-93 at an estimated cost of almost $1.4 million. Financing is anticipated to be provided through CDBG funds, local revenues, and expenditures by homeowners.

(2) Complete revitalization activities in Project Area 6 by 199495 at an estimated cost of approximately $800,000. Financing is expected to be similar to the above.

(3) Continue citywide codes enforcement program in conjunction with a schedule of neighborhood public facility improvements, with a concentration of efforts continuing in Project Areas 3, 4, 5 and 8. Costs are estimated to be approximately $2.2 million for the period (exclusive of new private construction and rehabilitation) with financing provided through Urban Development Action Grants, private developers/investors, general fund revenues, and expenditures by home and business owners.

Phase III, 1995-2000

Wastewater System Improvements: Construction of additional collection lines to serve growth for the period is estimated to cost approximately $1,300,000. Financing would be provided through the sale of revenue bonds.

Water System Improvements: The extension of additional distribution lines during this period is estimated to cost approximately $450,000, with financing to be provided through the sale of revenue bonds.

Recreational Improvements: Major facilities recommended to be provided during this phase include the following:

(1) Add two (2) additional mini-parks with neighborhood service areas at an estimated cost of $120,000.

(2) Provide other facilities recommended for existing recreation areas at an estimated cost of $150,000.

Financing of the proposed facilities would be provided from general fund revenues, private donations and HCRS grants.

School Facilities Improvements:

(1) Lebanon High School -- Add 12 classrooms at an estimated cost of $330,000.

(2) Walter J. Baird Junior High School -- Add seven (7) classrooms at an estimated cost of $195,000.

(3) Byars-Dowdy School -- Add seven (7) classrooms at an estimated cost of $195,000.

(4) Sam Houston School -- Add seven (7) classrooms at an estimated cost of $195,000.

(5) Carroll-Oakland School -- Add seven (7) classrooms at an estimated cost of $195,000.

Major Thoroughfare Improvements: This phase would include the following thoroughfare improvements and estimated costs.

(1) State Route 24 (Carver Lane to Urban Area Boundary) -- Estimated cost of $1,895,000.

(2) State Route 10 (I-40 to Urban Area Boundary) -- Estimated cost of $464,000.

(3) Forrest Street (State Route 141 to Lake Street) -- Estimated cost of $396,000.

(4) State Route 10 (Western Avenue to Urban Area Boundary) -- Estimated cost of $3,913,000.

(5) Bethlehem Road Extension (State Route 24 to Leeville Road) -- Estimated cost of $1,383,000.

(6) State Route 141 (State Route 24 By-Pass to Urban Area Boundary) -- Estimated cost of $662,000.

(7) State Route 141 (State Route 26 to Urban Area Boundary) -- Estimated cost of $793,000.

(8) State Route 26 (Blue Bird Road to Park Avenue and I-40 to Urban Area Boundary) -- Estimated cost of $859,000.

(9) Gay Street Extension (Cherry Street to Park Avenue) -- Estimated cost of $169,000.

(10) Castle Heights Avenue (Spring Street to West Adams Street) -- Estimated cost of $579,000.

Improvements are expected to be carried out through matching Federal and State funds, Urban Street-Aid funds, state street-aid funds, and local funds.

Community Revitalization Projects:

(1) Complete revitalization activities for Project Areas 9, 10, and 13 by the year 2000 at an estimated cost of over $3.0 million. Financing is expected to be provided through CDBG grants, local revenues, and expenditures by homeowners.

(2) Continue city-wide codes enforcement program in conjunction with a schedule of neighborhood public facility improvements, with a concentration of efforts toward completing activities in Project

Areas 3, 4, 5 and 8. Costs are estimated to be approximately $2.2 million for the period (exclusive of new private construction and rehabilitation) with financing provided through Urban Development Action Grants, private developers/investors, general fund revenues, and expenditures by home and business owners.

CAPITAL BUDGET

The preparation of a capital budget to guide long-range municipal expenditures is considered good judgement by most municipal finance experts. In communities utilizing a capital budget, the fiscal and chief administrative officers regard it as an essential component of the entire fiscal process.

The capital budget is, in effect, a planning tool. Its preparation, ideally, represents the culmination of a series of steps in the planning process. These steps usually occur in the following sequence: analyses of the economic, population, and physical structures of the community; development of goals and objectives; preparation of plans for land use, major thoroughfares, and community facilities; and devisal of a program for proposed public improvements. Once the public improvements program has been completed, it is then possible to construct a plan for financing the improvements.

More specifically, the capital budget is a financial plan which schedules capital improvements over a specified period of time according to the priority of need established in the public improvements program, coupled with the City's ability to pay for these improvements.

Generally speaking, capital improvements programs are set up for a six-year time period with annual review. This has proved to be a convenient period of time, manageable for purposes of analysis and arrived at by elimination of alternatives. A one to three-year period is of too short duration for most cities and would defeat the purpose of being "long-range". If a four-year program were chosen, it might coincide with an election year, thus possibly turning the capital program into a political football as well as making program continuity more difficult. Since a "five-year" plan has a well known international connotation, a six-year period has been traditionally chosen and is recommended by the National Resources Planning Board.* According to the Board, the financial analysis portion of the capital improvements budget is designed to:

> ---determine approximately the present and future ability of the municipality to pay for the construction and maintenance of public improvements, to estimate the present availability

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*"Capital Improvements Programming," American Society of Planning Officials, Planning Advisory Service, Information Report No. 151, October, 1961.

of funds, to research the probable future trends of municipal revenue and expenditure, to appraise all factors related to the administration and operation of the program, and to determine what limitations are imposed, by statutes or prior commitments, upon the freedom of the municipality to act. This amounts in reality to comprehensive financial planning for the City.

For any capital budget program to be practical, it must be within the community's ability to pay for the projects proposed. If a city proposes improvements for which it is not capable of financing, or if the municipality has no idea of how it might pay for them, the program is without merit.

Because the capital budget is a planning tool and an important component of the planning process, it is the purpose of this section of the General Plan to analyze the various factors affecting Lebanon's finances and to provide suggestions which will assist the City Administration in reaching its decisions concerning capital expenditures during the 1984-1989 period.

FINANCIAL ANALYSIS

The City of Lebanon, operated under a charter issued by the State of Tennessee, is governed by the Mayor and City Council.

Past financial policies of the City reflect the use of current revenues to meet operating cost, debt payment and administration. The annual budget appropriations provided for capital improvements. Major capital improvements have been financed by bond issue or long-term borrowing.

General Fund Operations

Tables XX and XXI, respectively, represent a compilation of Lebanon's general fund revenues and expenditures from 1978 through 1982. During the past five (5) years, general fund revenues increased from $2,082,908 in 1978 to $2,536,095 in 1982, an increase of 21.7 percent. Over this same period, expenditures increased from $2,264,263 to $2,316,288, an increase of only 2.3 percent. The moderate increase in revenues for the period and the very small increase in expenditures reflects the recessionary trends for the latter half of the period and local government efforts to reduce spending where possible. Increasing service requirements during the period, however, did reflect significant increases in expenditures in several areas, particularly for police and fire protection services.

TABLE XX

GENERAL FUND REVENUES BY SOURCE

LEBANON, TENNESSEE

1978-1982

SOURCE	1978	1979	1980	1981	1982
Taxes:					
Real and Personalty	$ 416,753	$ 478,471	$ 450,908	$ 461,891	$ 458,361
Business	82,489	111,007	96,336	106,628	111,543
Wholesale Beer	135,876	174,193	202,036	239,565	261,332
Sales	588,469	675,829	690,816	703,034	722,751
Hotel and Motel	-0-	-0-	-0-	34,154	45,248
	$1,223,587	$1,439,500	$1,440,096	$1,545,272	$1,599,235
Tax Equivalents:					
Dept. of Electricity	$ 116,320	$ 125,105	$ 123,541	$ 126,157	$ 113,772
TVA Tax Replacement	785	785	18,781	24,217	31,204
Natural Gas System	17,000	17,000	17,050	17,000	17,000
Lebanon Housing Auth.	9,447	10,705	11,982	12,226	13,766
Dept. of Waterworks	110,625	85,000	100,000	95,000	95,000
	$ 254,177	$ 238,595	$ 271,354	$ 274,600	$ 270,742
Federal, State and Regional Apportionments and Grants:					
Sales Tax	$ 223,173	$ 251,019	$ 259,959	$ 273,939	$ 278,500
Income Tax	19,205	20,588	19,756	25,101	29,392
Street & Trans. Fund	73,868	53,353	81,911	67,527	33,934
Beer Tax	4,949	5,185	5,032	5,102	5,402
Alcoholic Beverage Tax	195	-0-	188	-0-	-0-
Police Trng. & Equip.	4,838	10,024	15,000	7,200	44,578
Tenn. Arts Commission	1,200	-0-	-0-	-0-	-0-
Sanitary Landfill Funds	7,859	7,859	7,869	6,740	-0-
Airport	-0-	-0-	11,143	-0-	1,804
Salary Reimbursements	71,673	10,415	6,911	82,691	39,182
	$,406,960	$ 358,443	$ 407,769	$ 468,300	$ 432,792
TVA Planning Payments	$ 23,300	$ -0-	$ -0-	$ 9,704	$ 10,000
Fines & Costs	59,369	46,221	60,481	70,633	78,618
Rent-Airport Fac.	1,780	1,513	1,758	4,541	6,487
Rents From Other City Departments	17,224	17,174	16,626	22,833	18,846
Other Rents	-0-	1,825	-0-	-0-	24,250
Pay Phones On City Property	69	53	58	47	40

SOURCE	1978	1979	1980	1981	1982
Sale of City Property	1,406	7,946	3,000	8,125	500
Highway & Street Charges	175	1,524	1,237	215	135
Interfund Transfers	50,000	-0-	604	-0-	-0-
Interest on Investments	13,696	10,096	14,351	42,702	40,215
Performance Bond	-0-	-0-	10,000	-0-	10,000
Permits	3,771	7,390	5,786	6,243	7,296
Taxicab Driver's Licenses	48	64	52	34	14
Cemetery Income	16,950	26,586	17,994	25,307	22,505
Sanitation Income	686	-0-	-0-	-0-	-0-
Park & Rec. Income	2,867	3,105	5,271	1,580	2,352
Interest & Penalty On Taxes & Licenses	2,688	5,682	3,718	5,695	5,762
Miscellaneous	4,155	3,349	7,371	2,442	6,306
	$ 198,184	$ 132,528	$ 148,307	$ 200,101	$ 233,326
	$2,082,908	$2,169,066	$2,267,526	$2,488,273	$2,536,095

Source: City of Lebanon, Tennessee
Audited Financial Statements, 1978-1982

TABLE XXI

GENERAL FUND EXPENDITURES BY FUNCTION

LEBANON, TENNESSEE

1978-1982

FUNCTION	1978	1979	1980	1981	1982
City Departments:					
Mayor and Council	$ 23,401	$ 21,508	$ 24,089	$ 24,825	$ 34,818
Financial Admin.	159,843	130,543	119,168	120,237	138,364
Police	445,329	417,990	474,710	543,175	620,565
Fire	362,857	395,630	433,398	447,048	458,963
Sanitation	176,179	230,029	305,746	280,421	317,368
Cemetery	56,196	56,113	55,314	62,945	65,205
Building Inspection	30,853	23,345	17,344	19,769	24,385
Recreation	159,970	72,339	57,240	44,495	54,628
General Maintenance	-0-	24,364	-0-	-0-	-0-
Civil Defense	17,747	20,311	19,206	26,039	23,862
Engineering	25,391	54,542	50,332	51,998	53,512
Garage	40,100	48,794	61,228	70,485	71,100
Accounting	13,217	7,841	7,317	6,902	7,771
Public Works Admin.	26,208	11,425	3,629	20,586	22,571
Highways & Streets	397,762	361,616	369,867	445,886	301,870
Planning	12,351	13,831	14,236	15,012	18,329
Rehab. Projects	119,587	11,726	11,852	-0-	-0-
Personnel Admin.	-0-	17,328	-0-	-0-	-0-
Ralph Sloan Days	-0-	-0-	-0-	-0-	2,574
Sanitary Landfill	42,380	-0-	-0-	-0-	-0-
Airport	3,070	-0-	5,782	5,730	11,610
Industrial Dev. Board	314	-0-	-0-	54	59
Senior Citizens Center	-0-	-0-	-0-	8,467	785
	$2,112,755	$1,919,275	$2,031,058	$2,194,074	$2,228,339
Transfers to Debt Service Fund	47,599	40,194	42,163	41,112	40,063
Transfers to Other Funds	20,740	260,259	-0-	11,319	-0-
Street Lights	28,654	41,378	-0-	-0-	-0-
Retirement - Charter	-0-	2,442	1,638	1,821	1,911
Grants & Contributions	44,800	42,800	30,016	60,412	45,975
Taxes & Tax Equivalents	9,715	-0-	-0-	-0-	-0-
	$2,264,263	$2,306,348	$2,104,875	$2,308,738	$2,316,288

Source: City of Lebanon, Tennessee
Audited Financial Statements, 1978-1982

The assessed valuation of property in Lebanon rose from $30,654,108 in 1978 to $35,964,761 in 1982, a 17.3 percent increase. Property tax collections increased from $416,753 to $473,767, or 13.7 percent, during the five-year period. The City property tax rate presently amounts to $1.21 per $100 of assessed valuation.

Other local taxes including business, wholesale beer, sales, and hotel and motel taxes rose from $806,834 in 1978 to $1,140,874 in 1982, an increase of 41.4 percent. Business taxes increased from $82,489 to $111,543, or 35.2 percent, over the period. The wholesale beer tax increased from $135,876 to $261,332, for a gain of 92.3 percent, while sales taxes grew from $588,469 to $722,751, for a 22.8 percent increase. The hotel and motel tax, instituted in 1981, produced a revenue of $45,248 in 1982.

Payments in lieu of taxes from the utility departments, Tennessee Valley Authority (TVA) and Lebanon Housing Authority increased from $254,177 in 1978 to $270,742 in 1982, or 6.5 percent, largely due to increased tax replacement payments by TVA.

Revenues from federal, state and regional apportionments and grants (including state shared taxes, income taxes, beer taxes and other sources) increased from $406,960 to $432,792, or 6.3 percent, with losses in several categories being more than offset by gains in sales and income taxes.

Other sources of revenues including fines, rents, interest on investments and permits increased from $198,184 to $233,326 between 1978 and 1982, or 17.7 percent. Primary sources of revenue in this category include fines, rents, interest and other property income.

Table XXII presents estimates of City revenues by source for the period from 1984 through 1989. Property taxes, one of Lebanon's principal sources of revenue, are projected to increase to a total of over $1,000,000 by 1989, or an increase of approximately 117 percent for the period. This projection was made by analyzing trends in increases in the assessed valuation of property for Lebanon over the past five (5) years. Total assessed valuation of properties increased by an average of $1,062,130 per year between 1978 and 1982. For projections purposes, this average figure was adjusted upward by 25 percent annually in the anticipation of increased building activity resulting from improved economic conditions and lifting of the sewer moratorium, as well as, the expectation of significant additions to the City through annexation over the next six (6) years. By adding this adjusted average figure to the previous year's assessed value, estimates for future years were made. Application of the tax rate to the estimated assessed value of the City's taxable property gives an estimate of property tax revenue for the year. The projection also reflects a gradual increase in tax rate from $1.21 per $100 of assessed valuation to $2.00 over the period, in order to assist in financing expanded service requirements and needed public improvements.

TABLE XXII

ESTIMATED GENERAL FUND REVENUES

LEBANON, TENNESSEE

1984-1989

SOURCE	1984	1985	1986	1987	1988	1989
Taxes:						
Real and Personalty	$ 495,831	$ 582,802	$ 680,749	$ 793,200	$ 924,755	$1,076,026
Business	118,100	124,600	131,100	137,600	144,100	150,500
Wholesale Beer	290,220	319,240	348,260	377,280	406,300	435,330
Sales	803,040	841,280	879,520	917,760	956,000	994,240
Hotel and Motel	50,190	52,580	54,970	57,360	59,750	62,140
	$1,757,381	$1,920,502	$2,094,599	$2,283,200	$2,490,905	$2,718,236
Utility Department Payments and Tax Equivalents:	277,800	281,400	285,000	288,800	292,600	295,400
Federal, State and Regional Apportionments and Grants:	458,200	478,590	498,900	519,300	539,700	562,000
Fines & Costs	86,000	90,000	95,000	100,000	105,000	110,000
Rent-Airport Fac.	7,500	8,000	8,500	9,000	10,000	12,000
Rents From Other City Departments	25,000	25,000	25,000	25,000	25,000	25,000
Sale of City Property	5,000	5,000	5,000	5,000	5,000	5,000
Highway & Street Charges	800	800	800	800	1,000	1,200
Interest	40,000	40,000	40,000	40,000	40,000	40,000
Permits	9,500	10,500	11,000	12,000	14,000	16,000
Cemetery Income	22,500	22,500	22,500	22,500	22,500	22,500
Park & Rec. Income	6,000	8,000	14,000	20,000	24,000	28,000
Interest & Penalty On Taxes & Licenses	7,000	7,500	8,000	8,500	9,000	11,000
Miscellaneous	5,000	5,000	5,000	5,000	5,000	5,000
	$ 214,300	$ 221,500	$ 234,800	$ 247,800	$ 260,500	$ 275,700
	$2,707,681	$2,901,992	$3,113,299	$3,339,100	$3,583,705	$3,851,336

Sources: John Coleman Hayes and Associates, Inc.
Engineers, Architects, and Planners

City of Lebanon, Tennessee
Audited Financial Statements, 1978-1982

Business tax revenues were assumed to reflect increases similar to those experienced over the past five (5) years reaching $150,500 by 1989, or a 35 percent increase for the period. The present per capita income from the wholesale beer tax was applied to the projected population resulting in an increase to $435,330 by 1989, or an increase of 50 percent. Taxes for sales and hotels and motels were also projected on a per capita income basis, resulting in sale tax revenues increasing to over $994,000 by 1989, or 23.8 percent, and hotel and motel tax revenues increasing to $62,140 or over 23 percent. Overall, these tax sources, including the property tax, are expected to increase by approximately 30 percent for total annual revenues of over $2,156,000 by 1989.

In-lieu-of-tax payments from utilities, TVA and the Lebanon Housing Authority are expected to experience an increase to $295,400 by 1989, or nine (9) percent, consistent with increases over the past five (5) years.

Projection of taxes from state shared revenues was based on the average per capita revenues from these sources over the past five (5) year period. Applying the average per capita average to projected population over the period results in the expected annual revenues of $501,250 by 1989 from state shared revenues, or an increase of over 26 percent. Other revenues in the category of federal, state and regional apportionments and grants were projected on the basis of past trends. Overall, revenues in this category are expected to reach $562,000 by 1989, or an increase of 22 percent.

Other revenue sources including fines, rents, interest or investments and permits were projected on the basis of past trends over the past five (5) years and are expected to total $275,700 by 1989, or an increase of about 25 percent.

In the final analysis, total city revenues are projected from an estimate of $2,714,679 in 1984 to $3,289,112 in 1989, or approximately 25 percent.

Table XXIII depicts estimated general fund expenditures for the period 1984 through 1989 by department or function. These projections are based on the past relationship between population, expenses, and services performed. For instance, operating expenditures are based on past experience, adjusted to increases in population, increases in personnel, and changing equipment costs.

It is easily seen that the public improvements program enters into this phase of the capital budget. Consideration must be taken of the additional operating expenditures that may arise for the various city functions as a result of the new improvements that have been planned by the City. Such things as additional salaries and maintenance of new equipment are pertinent and have been estimated.

TABLE XXIII

ESTIMATED GENERAL FUND EXPENDITURES

LEBANON, TENNESSEE

1984-1989

FUNCTION	1984	1985	1986	1987	1988	1989
City Departments:						
Mayor and Council	$ 36,750	$ 38,950	$ 40,900	$ 42,950	$ 45,100	$ 47,350
Financial Admin.	144,200	148,500	152,900	157,450	162,150	166,950
Police	669,600	725,100	783,100	845,750	913,250	986,250
Fire	496,800	533,600	570,400	607,200	644,000	680,800
Sanitation	336,000	352,000	368,000	384,000	400,000	416,000
Cemetery	66,300	67,600	68,900	70,200	71,500	72,800
Building Inspection	26,250	45,000	47,250	49,600	52,100	54,500
Recreation	60,000	80,000	84,000	88,200	92,400	97,000
Civil Defense	24,000	25,200	26,360	27,460	28,800	30,250
Engineering	55,000	58,300	61,600	64,900	68,200	71,500
Garage	72,000	77,760	83,520	89,280	95,040	106,560
Accounting	8,000	8,400	8,800	9,200	9,600	10,400
Public Works Admin.	24,000	25,200	26,400	27,600	28,800	31,200
Highways & Streets	300,000	325,000	350,000	375,000	400,000	450,000
Planning	20,000	22,000	24,000	26,000	28,000	30,000
Airport	10,000	10,000	10,000	10,000	10,000	10,000
Transfers to Debt Service Fund	40,000	50,000	60,000	70,000	80,000	90,000
Street Lights	10,000	10,000	10,000	10,000	10,000	10,000
Retirement - Charter	2,500	2,500	2,500	2,500	2,500	2,500
Grants & Contributions	45,000	45,000	45,000	45,000	45,000	45,000
Miscellaneous	25,000	25,000	25,000	25,000	25,000	25,000
TOTAL	$2,471,400	$2,675,110	$2,848,360	$3,027,290	$3,211,440	$3,434,060
Excess of Revenue Over Expenditures	$ 336,281	$ 226,882	$ 164,939	$ 311,810	$ 372,265	$ 417,276

Sources: John Coleman Hayes and Associates, Inc.
Engineers, Architects, and Planners

City of Lebanon, Tennessee
Audited Financial Statements, 1978-1982

Total general fund expenditures are expected to increase from $2,471,400 in 1984 to $3,434,060 in 1989, or 38.9 percent for the period. The increases will be required to accommodate increasing personnel, maintenance and operational costs associated with the expansion of police, fire and other services necessary for community population growth and development during the period.

By comparing Tables XXII and XXIII, calculations reveal that general fund revenues are expected to exceed expenditures by an annual average of over $300,000 through 1989. This average of revenue will assist in the financing of planned capital improvements.

In analyzing Lebanon's debt structure, as shown in Table XXIX, a summary of the general obligation bond debt, along with a schedule of payments indicating future amortization cost and requirements, is set forth. The tabulation consists of bond principal and interest payments to the point in time when all existing debt will be liquidated. During the next six (6) years, the City is obligated to retire general obligation bonds amounting to $270,000, coupled with interest payments of $40,250--a total debt service of $310,250.

Since Table XXIV has been completed, it is now possible to compare the revenue dollar that will be needed to meet future amortization cost with the revenue dollar that will be needed for general operations, police, fire, sanitation, recreation and similar functions. There is no set rule about reaching a critical point in the comparison mentioned above, but amortization requiring 20 percent of the revenue dollars is generally considered a maximum point.

Table XXV shows the ratio of the annual debt service requirements to total revenue. It is clearly evident that the City has considerable latitude to issue a substantial amount of additional general obligation bonds before the maximum ratio of 20 percent is reached.

TABLE XXIV

GENERAL OBLIGATION BOND DEBT SERVICE REQUIREMENTS

LEBANON, TENNESSEE

Year Ending June 30	Principal Payment	Interest Payment	Total Principal And Interest Payment
1983	$ 30,000	$ 9,450	$ 39,250
1984	35,000	8,400	43,400
1985	35,000	7,175	42,175
1986	40,000	5,950	45,950
1987	40,000	4,550	44,550
1988	45,000	3,150	48,150
1989	45,000	1,575	46,575
	$270,000	$40,250	$310,250

Source: City of Lebanon, Tennessee
Audit Financial Reports

TABLE XXV

RATIO OF DEBT SERVICE REQUIREMENTS
TO TOTAL ANNUAL REVENUES

LEBANON, TENNESSEE

1984-1989

Year	Revenue	Debt Service Requirements	
		Amount	Ratio to Revenue
1984	$2,707,681	$43,400	1.60%
1985	$2,901,992	$42,175	1.45%
1986	$3,113,299	$45,950	1.47%
1987	$3,339,100	$44,550	1.33%
1988	$3,583,705	$48,150	1.34%
1989	$3,851,336	$46,575	1.20%

Sources: John Coleman Hayes and Associates, Inc.
Engineers, Architects, and Planners

City of Lebanon, Tennessee
Audited Financial Reports

Water and Sewer System Operations

Table XXVI shows a summary of revenues and expenditures for the water and sewer system for the period 1978 to 1982. Operating revenues increased from $1,413,756 to $1,569,214 by 1982, or 11.0 percent. Operating expenditures during the same period, including depreciation, increased from $1,067,099 to $1,369,216, or 28.3 percent. As can be seen, revenues increased much slower than expenditures over the five (5) year period, however, operating revenues exceed total operating expenses by a good margin in all five (5) years reported.

Consideration of other income and expenses for the combined systems indicates a net loss in three (3) of the five (5) years. Significant net income would be indicated for every year if depreciation were excluded as an expense; however, for the purpose of financial analysis, the depreciation factor must be recognized as a real cost to the system.

Both operating revenues and expenditures are expected to increase significantly between 1984 and 1989 as a result of currently scheduled and projected water and sewer system expansions and improvements. Due to the accounting complexities in forecasting system revenues and expenditures, an effort is not made here to do so. System revenues for the period must keep pace with operating expanses, as well as, amortize current and anticipated revenue bond issues required for system improvements through 1989.

In analyzing the water and sewer structure, as shown in Table XXVII, a summary of the system's debt, along with principal and interest requirements, is indicated. The water and sewer system is obligated to retire bonds amounting to $6,400,000, coupled with interest payments of $3,300,945--a total debt service of $9,700,945. Additional bonds amounting to approximately $2.0 million are required for the planned sewer system improvements program now in progress.

TABLE XXVI

OPERATING REVENUES AND EXPENSES
WATER AND SEWER SYSTEM

LEBANON, TENNESSEE

1978-1982

SOURCE	1978	1979	1980	1981	1982
Operating Revenues	$1,413,756	$1,478,813	$1,490,287	$1,551,159	$1,569,214
Operating Expenses					
Purification	180,102	221,815	361,722	478,088	296,854
Transmission/ Distribution	187,965	177,817	34,112	59,150	281,452
Customer Accounting & Collection	78,958	84,430	85,923	96,276	129,831
Adm. & General	114,432	103,462	90,752	95,109	103,649
Sewerage System Direct Expenses	173,894	173,896	174,206	198,304	219,955
Tax Equivalents	110,625	85,000	100,000	95,000	95,000
Depreciation	221,123	235,527	238,777	239,381	242,475
Total Operating Expenses	$1,067,099	$1,082,037	$1,085,492	$1,261,308	$1,369,216
Net Operating Revenues	$ 346,657	$ 396,776	$ 404,795	$ 289,851	$ 199,998
Other Income and Expenses*					
Rent Income	1,500	1,500	2,527	1,500	2,527
Interest Income	43,203	44,165	55,190	63,746	239,723
Interest on Long-Term Debt	434,240*	432,188*	407,618*	393,767*	528,833*
	$ 389,537*	$ 386,523*	$ 353,761*	$ 352,701*	$ 299,083*
Net Income, Loss*	$ 42,880*	$ 10,253	$ 51,034	$ 62,850*	$ 45,765*
Retained Earnings					
First of Year	$1,044,498	$1,001,618	$1,011,871	$1,062,905	$1,000,055
End of Year	$1,001,618	$1,011,871	$1,062,905	$1,000,055	$ 941,030

Source: City of Lebanon
Audited Financial Reports

TABLE XXVII

WATER AND SEWER BOND DEBT SERVICE REQUIREMENTS

LEBANON, TENNESSEE

Year Ending June 30	Water and Sewer Bonds					
	Principal Requirements			Interest Requirements		
	1957 Issue	1962 Issue	1973 Issue	1957 Issue	1962 Issue	1973 Issue
1983	$ 40,000	$ 30,000	$ 125,000	$ 8,500	$ 43,250	$ 250,787
1984	40,000	35,000	125,000	6,800	42,200	242,663
1985	40,000	35,000	175,000	5,100	40,975	233,700
1986-1987	80,000	70,000	400,000	5,100	78,187	435,200
1988-2001		990,000	3,550,000		314,438	1,422,800
	$200,000	$1,160,000	$4,375,000	$ 25,500	$519,050	$2,585,150

Year Ending June 30	Waterworks Improvement Bonds					
	Principal Requirements			Interest Requirements		
	1958 Issue	1959 Issue	1968 Issue	1958 Issue	1959 Issue	1968 Issue
1983	$ 15,000	$ 10,000	$ 20,000	$ 11,260	$ 7,600	$ 7,820
1984	15,000	10,000	25,000	10,720	7,200	6,900
1985	15,000	10,000	25,000	10,165	6,800	5,750
1986-1989	90,000	60,000	100,000	33,630	22,800	11,500
1990-1994	170,000	100,000		17,100	12,000	
	$305,000	$ 190,000	$ 170,000	$ 82,875	$ 56,400	$ 31,920
TOTALS	$505,000	$1,350,000	$4,545,000	$108,375	$575,450	$2,617,120

Source: City of Lebanon, Tennessee
Audited Financial Reports

With Table XXVII completed it is possible to compare the revenue dollar that will be needed to meet future amortization costs with the revenue dollar that will be needed to operate the water and sewer system. Tables XXVIII shows the ratio of the present annual debt service requirements to that of total estimated annual revenue.

It is generally recognized by many authorities concerned with financing water and sewer systems that net annual revenue should be at least 35 percent greater than the annual debt service requirements. On the basis of current debt, Lebanon's system has adequate capacity to move forward with currently scheduled and planned improvements for the period.

TABLE XXVIII

RATIO OF DEBT SERVICE REQUIREMENTS TO NET ANNUAL REVENUES, WATER AND SEWER SYSTEM

LEBANON, TENNESSEE

1984-1989

Year	Net Revenue	Debt Service Requirements	
		Amount*	Ratio to Revenue
1984	$1,607,040	$566,483	2.8
1985	$1,651,590	$602,490	2.7
1986	$1,702,296	$577,725	2.9
1987	$1,906,740	$577,725	3.3
1988	$2,030,508	$548,846	3.7
1989	$2,154,600	$548,846	3.9

*Includes Current Debt Service Only

Sources: John Coleman Hayes and Associates, Inc.
Engineers, Architects and Planners

City of Lebanon
Audited Financial Records

SIX-YEAR CAPITAL BUDGET

A recommended capital improvements budget for the City of Lebanon covering fiscal years 1984 through 1989 is presented in the following paragraphs and summarized in Table XXIX.

Airport Improvements

Capital outlay items include installation of a tank for jet fuel, construction of an additional tee hangar and tie down space, and construction of an additional hangar at an estimated cost of $165,000.

Municipal Parking Improvements

Construct a 275 space municipal parking garage on the County-owned parking lot at the southwest corner of the Public Square at an estimated cost of $1.7 million.

City Hall Improvement

Provide additional storage space at an estimated cost of $35,000.

Police Department Improvements

Acquire a three (3) acre site and construct a new 10,000 square foot building at an estimated cost of $525,000. Provide new equipment at a cost of approximately $75,000.

Fire Department Improvements

Provide new equipment and building improvements at an estimated cost of $250,000.

Wastewater System Improvements

Currently scheduled improvements include wastewater treatment plant expansion and construction of the Sinking Creek and Watertown Highway Interceptor Sewers at a cost of $6,800,000.

Other capital outlay requirements include construction of the Blair Lane and Barton's Creek Interceptor Sewers at a cost of $1,300,000, and extension of eight (8) inch mains in West Lebanon and South Lebanon at an estimated cost of $750,000.

Water System Improvements

Construct an additional 2.0 million gallon capacity storage facility at an estimated cost of $500,000, and extend additional distribution lines at an estimated cost of $250,000.

Recreation Improvements

(1) Construct a 50 meter swimming pool at Baird Park at an estimated cost of $400,000.

(2) Construct an amphitheater at Baird Park at an estimated cost of $50,000.

(3) Renovate the existing National Guard Armory Building for a Community Center at a cost of $200,000.

(4) Provide five (5) mini-parks with neighborhood service areas at an estimated cost of $300,000.

(5) Provide other recommended facilities at existing recreation areas at an estimated cost of $175,000.

School Facilities Improvements

(1) Lebanon High School -- Update mechanical and other equipment at an estimated cost of $200,000.

(2) Baird Jr. High School -- Add eight (8) new classrooms to accommodate all 7 and 8 grade students and growth to 1990 at a cost of $220,000.

(3) Close McClain and Highland Heights Schools upon completion of a new consolidated 40 classroom school at an estimated cost of $1,600,000.

(4) Southside School - Replace roof, renovate and expand library and cafeteria space at an estimated cost of $200,000.

(5) Market Street School - Expand site to meet minimum State requirements and provide adequate parking at an estimated cost of $75,000.

Major Thoroughfare Improvements

(1) Leeville Road Extension (Greenwood to State Route 10) -- Estimated cost of $550,000.

(2) Coles Ferry Pike Extension (City limits to State Route 10) -- Estimated cost of $517,000.

(3) Leeville Road Extension (State Route 10 to Park Avenue) -- Estimated cost of $1,385,000.

(4) North Greenwood Extension (West Forrest to State Route 10) -- Estimated cost of $440,000.

(5) New By-Pass (Franklin Road to State Route 24 By-Pass) -- Estimated cost of $8,225,000.

(6) New By-Pass (State Route 24 By-Pass to State Route 10) -- Estimated cost of $5,925,000.

TABLE XXIX

SIX-YEAR CAPITAL BUDGET

LEBANON, TENNESSEE

1984-1989

Recommended Capital Improvement	1984	1985	1986	1987	1988	1989	Proposed Financing
Airport Improvements		$ 165,000					Federal Aviation Administration; Tennessee Civil Aeronautics Board; General Revenues
Municipal Parking Garage			$1,700,000				Revenue Bonds
City Hall Improvement		$ 35,000					General Revenues or General Obligation (GO) Bonds
Police							
(1) New Building			$ 525,000				GO Bonds
(2) New Equipment		$ 75,000					General Revenues
Fire							
(1) Building Renovations			$ 150,000				GO Bonds
(2) New Equipment				$ 100,000			General Revenues

TABLE XXIX (CONTINUED)

Recommended Capital Improvement	1984	1985	1986	1987	1988	1989	Proposed Financing
Wastewater System							
(1) WWTP Expansion; Sinking Creek and Watertown Interceptors	$2,000,000						Revenue Bonds
(2) Barton's Creek & Blair Lane Interceptors			$1,300,000				EPA/ Revenue Bonds
3) Other Collection Lines			$ 750,000				Revenue Bonds
Water System							
(1) Additional Storage			$ 500,000				Revenue Bonds
(2) Distribution Lines					$ 250,000		Revenue Bonds
Recreation							
(1) Swimming Pool				$ 400,000			HCRS Grants;
(2) Amphitheater		$ 50,000					General Revenues;
(3) Community Center		$ 200,000					CDBG Grants;
(4) Mini-Parks		$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000	GO Bonds
(5) Other New Facilities		$ 50,000	$ 50,000	$ 50,000	$ 25,000		

TABLE XXIX (CONTINUED)

Recommended Capital Improvement	1984	1985	1986	1987	1988	1989	Proposed Financing
Major Thoroughfare Improvements							
(1) Leeville Rd. Ext.	$ 550,000						Federal Urban Street Program; Street Aid Funds; General Revenues; GO Bonds; Other Federal-State Assistance*
(2) Coles Ferry Pike Ext.	$ 517,000						
(3) Leeville Rd. Ext.			$1,385,000				
(4) N. Greenwood Ext.					$ 440,000		
(5) New By-Pass			$8,225,000*				
(6) New By-Pass						$5,925,000*	
School Facilities							
(1) Lebanon High		$ 200,000					School Bonds By County and/or Special District
(2) Baird Jr. High			$ 220,000				
(3) New Elementary School		$1,600,000					
(4) Southside			$ 200,000				
(5) Market Street			$ 75,000				
Community Revitalization							
(1) Project Area 1		$ 600,000	$ 600,000	$ 600,000			CD Block Grants; Urban Development Action Grants; Local Revenues; Private Funds
(2) Project Area 2				$ 500,000	$ 500,000	$ 500,000	
(3) City-wide codes program concentrated in Project Areas 3, 4, 5 and 8		$ 455,500	$ 455,500	$ 455,500	$ 455,500	$ 455,500	

Community Revitalization Projects

(1) Project Area 1 (North Cumberland Street West) Complete revitalization activities in this area by 1987 at an estimated cost of $1.8 million.

(2) Project Area 2 (North Cumberland Street East) Complete revitalization activities in this area by 1989 at an estimated cost of $1.5 million.

(3) Initiate city-wide codes enforcement program concentrated in Project Areas 3, 4, 5, and 8 at an estimated cost of $2.2 million.

Conclusion

The six-year capital budget should be revised each year and another year added. The first year of the six-year capital budget should be used as a guide for constructing the City's operating budget for that particular year and, like the entire budget, should be flexible enough to allow for any necessary changes.

REGULATORY MEASURES

The regulatory measures presented in this section are included within the scope of the "police power" of the community. The police power serves as the groundwork for those public property regulations found by the courts to be consistent with the concept of due process of law and for which compensation of the owner by the community is not required. These regulations are justified on the basis of promoting the public health, safety, morals, convenience, order, prosperity, and general welfare. Thus, the police power is the foundation for subdivision control, zoning, and building and housing code enforcement which are important means for implementing the General Plan.

Subdivision Regulations

Subdivision regulations allow the community to guide new residential development in a manner consistent with the General Plan. In the absence of these regulations, land may be developed on a piecemeal and uncoordinated basis without adequate provision for streets, utilities, and other crucial improvements. Uncontrolled growth can result in unnecessary blight and high costs to the community. Most problems are best solved before land is subdivided and sold. After that time, the pattern of land development becomes frozen, a time when mistakes are usually irrevocable or too costly to correct.

Subdivision regulations should be strictly enforced within the Lebanon planning region, thus insuring that development outside as well as inside corporate limits will be consistent with community standards. These regulations also allow the community to restrict development in areas unsuitable for urban development as a result of steep slopes,

poor drainage, or lack of facilities. Furthermore, subdivision controls provide for adequate street right-of-way and utilities, in addition to reserving space for public facilities where needed.

Zoning Ordinance

Perhaps the most powerful and inexpensive tool for implementing the General Plan is the zoning ordinance. In addition to regulating the use of land, the zoning ordinance controls the placement of buildings on the land, building height, the amount of land required for off-street parking, and other important physical elements. In essence, zoning attempts to produce a sensible urban land pattern by keeping compatible uses together, eliminating incompatible uses, and, based upon the General Plan, properly locating the various physical components of the community as they relate to each other and to the character of the land. Zoning, however, is not a substitute for the General Plan but merely one of the means by which the objectives of the General Plan may be achieved.

Zoning is important and occupies a significant proportion of the time spent by the Planning Commission. However, zoning has a direct effect on property values and, for this reason, is difficult to administer. In many cases, those responsible for zoning "...simply wait until some property owner finds an opportunity to acquire financial advantage by devoting his property to a use other than that for which it is zoned and then struggle with the question of whether some excuse can be found for complying with his request for rezoning."* The result is excessive spot zoning, inconsistent with good zoning practice, the General Plan, and the community welfare. The welfare of the community, particularly as expressed in terms of the best or most appropriate use of one or more properties, should take precedence over individual gain or loss whenever the interest of the two conflict.

Code Enforcement

An adequate code enforcement program is essential to any community where attempts are being made to improve living conditions. The building code enforces minimum standards of structural quality and safety in the construction of new buildings. The housing code insures that dwellings are maintained in a safe and healthful manner.

The enforcement of these codes benefits the entire community be helping to prevent the spread of blight and its adverse effect on adjacent property values. It is an inexpensive way of preventing the development of slum areas and the resulting high costs of police, fire, and health protection.

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*Fritts vs City of Ashland, Court of Appeals of Kentucky. June 16, 1961, 348 S.W. 2nd 712, quoted from Zoning Digest, October 1961, American Society of Planning Officials.

OTHER IMPLEMENTATION MEASURES

Public Facilities Placement

The placement of public facilities plays a key role in shaping future development. Public facilities such as schools and community centers create the focal point of the urban area, and private developers find it desirable to relate their activities to these key components. Therefore, it is important that these facilities be located in accordance with the General Plan, thus insuring that development will proceed in an orderly fashion.

The placement of streets and utilities (water and sewer lines) has an equally important role in shaping future development. All things being equal, development is more likely to occur in areas served by roads and utilities rather than where only raw land exists. The proper placement of these facilities will thus enable the community to channel growth in accordance with the General Plan.

However, the construction of streets and the installation of utilities before development actually occurs is a radical method of directing growth. This costly procedure is not recommended unless development occurs in an erratic fashion, leaving large intervening vacant tracts between developed areas. The proper location of school facilities is a more rational method of channeling development. Through subdivision control, developers can be required to reserve street rights-of-way and install utilities as growth occurs around these facilities.

Control of Fringe Development

It has often been said that urban growth does not confine itself to municipal boundaries. Therefore, it is imperative that a growing community such as Lebanon exercise some control over development adjacent to the corporate limits in order that these areas will not exert an undue future burden on community facilities and services. It undertook the first step in this direction much earlier by establishing a regional Planning Commission with powers extending beyond the corporate limits. The continued enforcement of subdivision regulations can insure that new residential development occurring outside of the corporate limits with conform to adequate standards. Extra-territorial zoning can also be employed to control development within the planning region.

When significant development occurs in the urban fringe, the city should consider annexing these areas. It should be remembered, however, that annexation incurs cost as well as benefits, for while annexed areas will contribute additional taxes to the City's treasury, the costs of providing necessary services and facilities to these areas will also increase. Therefore, before any annexation is approved, a cost-benefit analysis of the situation should be made. If possible, annexation of fringe areas should not occur on a piecemeal basis but should be programmed at regular intervals in order that advanced preparation may be made with respect to financing and providing necessary municipal services and facilities.

Community Acceptance and Cooperation

One crucial aspect of the planning process remains, for the majority of houses, stores, and factories are built by private citizens and groups acting on independent initiative. It has been said that "the only plans people really believed in are the plans that people make themselves." Therefore, plans cannot merely be made and handed over to the community for execution. Only when the plans reflect the sum total of the community's ideas can people care very much about carrying out the plans.

Citizen participation through the various civic clubs, service clubs, chambers of commerce, and business and industry groups plays a major role in the planning process. Every year a myriad of private decision are made by individuals and groups concerning various projects which will affect the development of the urban area. Moreover, many pressing problems such as sub-standard housing find their best solution through the exercise of enlightened private incentive. With citizen support firmly behind planning and as an active part of the planning process, a greater number of decisions will be made in support of overall community plans and goals.

APPENDIX A

HOUSING ASSISTANCE PLAN

LEBANON, TENNESSEE

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

HOUSING ASSISTANCE PLAN

SMALL CITIES PROGRAM

KEYPUNCH CODE X

1. NAME OF APPLICANT: City of Lebanon, Tennessee

2. APPLICATION/GRANT NUMBER: B - - - - -

3. DATE OF SUBMISSION

4. PERIOD OF APPLICABILITY
FROM: March 1984
TO: March 1987

5. [X] ORIGINAL [ ] REVISION [ ] AMENDMENT

Form Approved
OMB No. 2506-004

PART I. HOUSING CONDITIONS

AVAILABLE HOUSING UNITS		A OCCUPIED	B VACANT	C TOTAL
	OWNER			
1	STANDARD	2,092	9	2,101
2	SUBSTANDARD	523	9	532
3	TOTAL, OWNER	2,615	18	2,633
	RENTER			
4	STANDARD	1,554	8	1,562
5	SUBSTANDARD	388	14	402
6	TOTAL, RENTER	1,942	22	1,964
7	TOTAL, OWNER + RENTER	4,557	40	4,597

Following table required only if applicant proposes goals for rehabilitation

SUBSTANDARD UNITS		A SUITABLE FOR REHABILITATION	B NOT SUITABLE FOR REHABILITATION	C TOTAL
8	OWNER	464	68	532
9	RENTER	322	80	402

Attach narrative identifying data sources, methods and definitions

PART II. HOUSING ASSISTANCE NEEDS

LOWER INCOME HOUSEHOLDS		A ELDERLY	B SMALL FAMILY	C LARGE FAMILY	D TOTAL
10	OWNER*	229	241	97	567
11	PERCENTAGE	40.4%	42.5%	17.1%	100%
12	RENTER**	170	205	52	427
13	PERCENTAGE	39.8%	48.0%	12.2%	100%
14	TOTAL, OWNER + RENTER	399	446	149	994

*Include displaced households **Include displaced households and households expected to reside.

Attach narrative identifying data sources, methods and the special housing needs of lower income households or of identifiable segments of lower income households.

PART III. THREE YEAR HOUSING ASSISTANCE GOAL

		A ELDERLY	B SMALL FAMILY	C LARGE FAMILY	D TOTAL
	OWNER				
15	TOTAL	48	54	18	120
16	PERCENTAGE	40 %	45 %	15 %	100%
	RENTER				
17	SECTION 8/LOW INCOME PUBLIC HOUSING	21	33	6	60
18	OTHER Mod. Rehab.	21	33	6	60
19	TOTAL	42	66	12	120
20	PERCENTAGE	35 %	55 %	10 %	100%
21	TOTAL, OWNER + RENTER	90	120	30	240

22 Specify the maximum number of Section 8/Low Income Public Housing units in each housing type that the community will accept. *(The number in each box may not exceed the number on Line 17, Column D in the goals table above.)*

NEW	SUBSTANTIAL REHABILITATION	MODERATE REHABILITATION	EXISTING
--	120	60	60

Attach narrative describing choice of housing type goals.

PART IV. GENERAL LOCATIONS

Attach map identifying the general locations of proposed assisted housing.

[ ] Check (✓) if the applicant wishes to review State HFDA Housing proposals within its jurisdiction.

NARRATIVE

PART 1

Substandard Units: The term substandard refers to dwelling units having serious deficiencies as determined by local survey. A substandard unit has one or more of the following characteristics:

1. Lacks one or more major plumbing facilities (hot and cold piped water, private toilet, and private shower or both).

2. Requires extensive repair to remove one or more critical defects or several intermediate defects.

3. Contains hazards for occupants.

4. Is a blighting influence.

Units classified as substandard are those for which rehabilitation is not financially feasible as well as those which can be rehabilitated.

Suitable For Rehabilitation: Units in this category include the estimated number of substandard units which can be restored to Section 8 minimum rehab standards for $10,000 or less per unit.

Not Suitable For Rehabilitation: Units in this category include all substandard units which do not meet the definition of "suitable for rehabilitation".

Data Sources: The information for Part I was obtained from the following sources:

1. Results of the 1982 field survey of land use and structural conditions conducted by the Lebanon-Wilson County Planning Office.

2. 1980 Census of Housing; Detailed Housing Characteristics, Tennessee.

3. 1980 Census of Population; General Social and Economic Characteristics, Tennessee.

Methods: The 1982 field survey provided totals for the number of housing units by condition of structure classified as standard, deteriorated and dilapidated. These figures were supplemented by census data regarding inadequate plumbing facilities and total number of units. Owner to renter proportions were determined from the 1980 census.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

HOUSING ASSISTANCE PLAN

SMALL CITIES PROGRAM

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5. ☒ ORIGINAL ☐ REVISION ☐ AMENDMENT

6. INCREMENTAL YEAR OF SUBMISSION ☐1 ☐2 ☐3

7. INCORPORATION OF HAP, PARTS I - IV, BY REFERENCE. Parts I, II, III and IV of the HAP approved _____ are incorporated by reference and are not contained in this *(second) (third)* year submission. *(Latest amendment date of the HAP, Parts I - IV, if any:* _____.)

PART V. ANNUAL HOUSING ASSISTANCE GOAL

HOUSING ACTIVITIES/PROJECTS - List housing activities and projects to be undertaken during the year. Identify: housing program; tenure of households to be served; number of elderly, small family, or large family households to be served; problems anticipated *(if any)*; actions to be taken.

The annual housing goal involves the rehabilitation of 40 substandard dwelling units under the CDBG Program in the North Cumberland Neighborhood Area (West) as follows:

	Elderly	Small Family	Large Family	Total
Owner	16	18	6	40
Renter	0	0	0	0
	16	18	6	40

The annual goal anticipates City efforts in applying for Moderate Rehab Units and/or existing Section 8 units to aid LMI renter households in need of housing assistance.

HOUSING TYPE - - SECTION 8/LOW INCOME PUBLIC HOUSING

Complete only if applicant proposes Section 8/Low Income Public Housing in Annual Goal

	HOUSING TYPE	A ELDERLY	B SMALL FAMILY	C LARGE FAMILY
1	NEW			
2	SUBSTANTIAL REHABILITATION			
3	MODERATE REHABILITATION			
4	EXISTING			

PART II

Data Sources and Methods: Information for Part II was obtained from the following:

1. 1980 Census of Housing; Detailed Housing Characteristics, Tennessee.

2. 1980 Census of Population; General Social and Economic Characteristics, Tennessee.

Methods: Percentages and numbers for the breakdown of households among the subgroups of elderly, small family, and large family were extracted from the 1980 census.

Households Expected to be Displaced as a result of anticipated acquisition and demolition of dilapidated dwelling units over the three (3) year period include approximately fifteen (15) owner households and ten (10) renter households. These figures are included in the appropriate spaces in Part II.

There are no identified special housing needs.

PART III

Three-Year Housing Assistance Goals for Owners includes the rehabilitation of 120 units under the CDBG program.

Three Year Housing Assistance Goals for Renters includes seeking HUD commitments for 60 units under the Moderate Rehabilitation Program and 60 units under the Section 8 existing program.

PART IV

General Locations for Proposed Assisted Housing: No new construction or sites are identified. Sites for CDBG rehabilitation and moderate rehab programs are in accordance with the Schedule for Remedial Action under the City's Revitalization Program.